

Role of Attitudes Toward Artificial Intelligence (AI) on Organizational Effectiveness in the Private Organisation Sector in Anambra State, Nigeria

Clement Nwokedi Obi¹, Okechukwu Dominic Nwankwo²,

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Echezona Emmanuel Nwokolo²

¹Grace of God Mission International, Divisional Headquarters, Awka, Anambra State

²Department of Psychology, Chukwuemeka Odumegwu Ojukwu University, Anambra State

Corresponding Author Email: obiclement72@gmail.com, +2340838973131,
+2349075228258

Abstract

The study examined the role of attitude toward artificial intelligence on organizational effectiveness in Anambra State, Nigeria. A total of 220 workers were sampled for the study. A multistage sampling technique was used to sample the participants. Two instruments were used in the study: The General Attitude on Artificial Intelligence Scale (GAAIS) and the Organisational Effectiveness Inventory Model (OEIM). The study used a cross-sectional design, and Multivariate Analysis of Variance (MANOVA) was the statistical method used. The result showed that attitude towards artificial intelligence had significant influence on goal attainment dimension of organizational effectiveness at 24.0% ($F_{29, 190} = 1.86, p < .05$). Attitude towards artificial intelligence had significant influence on system resource dimension of organizational effectiveness at ($F_{29, 190} = 1.45, p < .05$). Attitude towards artificial intelligence had significant influence on internal process dimension of organizational effectiveness at ($F_{29, 190} = 1.80, p < .05$). Attitude towards artificial intelligence had significant influence on strategic constituent of organizational effectiveness at ($F_{29, 190} = 1.68, p < .05$). Based on the study findings, it was recommended that there is need for implementation of artificial intelligence in today's private sector organization; if organizational effectiveness must be achieved.

Keywords: Attitudes Toward Artificial Intelligence (AI) and Organizational Effectiveness

Introduction

Organisational effectiveness is a central theme in management literature, often sparking extensive discussion, especially in the context of developing economies like Nigeria. Daft (2021) defines organizational effectiveness as the degree to which an organization meets

its established goals and objectives while optimizing the use of resources, including human capital, technology, and operational processes. This concept illustrates how efficiently an organization utilizes its personnel, resources, and procedures to achieve its aims and maintain competitiveness in the marketplace. Therefore, for an organization to attain a high level of effectiveness, it is crucial that its employees are well-motivated and possess the ability to adapt to changing circumstances. The dynamic nature of the business environment necessitates that both organizations and their employees develop adaptive capacities to remain relevant and achieve significant organizational effectiveness (Igbomor, 2024; Arubayi & Igbomor, 2024).

Hence, Heilman and Kennedy (2011) emphasize that organizational effectiveness serves as a vital tool for evaluating progress toward fulfilling the organization's mission and achieving its goals. To enhance organizational effectiveness, management should focus on improving communication, interaction, leadership, direction, productivity, mission accomplishment, organizational growth, stability, adaptability, and fostering a positive environment (Dada et al., 2020). An effective organization nurtures a culture of cooperation, commitment, and satisfaction among its members (Abbah, 2014). Moreover, organizational effectiveness can be assessed across various dimensions, including leadership quality, communication efficiency, accountability, metrics, human performance, and delivery systems (Anderson & Adams, 2015).

In recent years, the measurement of organizational effectiveness within Nigerian studies has transitioned from relying solely on quantitative financial metrics to adopting mixed-method approaches. Okoli and Eze (2022) argue that effectiveness encompasses not only return on investment and market share but also qualitative factors such as innovation capacity, employee satisfaction, and social impact. This perspective underscores that organizational effectiveness is not merely about financial profitability; it is also significantly influenced by the organization's human capital and factors like artificial intelligence (Douglas et al., 2021)

Enholm et al. (2021) describe artificial intelligence (AI) as the process of equipping computers with human-like capabilities, enabling them to perform tasks that typically require human intelligence. These tasks encompass reasoning, learning, understanding, and problem-solving. The primary goal of AI is to mimic human cognition by emulating how people learn and process information. This technology has the potential to replace certain human roles with faster and more cost-effective algorithms, ultimately enhancing process efficiency. More so, AI's impact on decision-making processes is particularly noteworthy. It streamlines and accelerates how employees absorb and master new material, thanks to its ability to clarify complex issues and present them in more digestible formats (Kumkale, 2022; Tyagi et al., 2023). In today's fast-paced business environment,

where the speed of learning and adapting to new knowledge can be critical for success, this capability is invaluable (Fosso-Wamba, 2022).

Moreover, AI significantly enhances the quality of reports and analyses by providing tools that ensure precise preparation. By automating and optimizing data collection and analysis, organizations can achieve improved outcomes while minimizing errors. This leads to greater efficiency and effectiveness in project and task management (Kurnia & Chien, 2020). In terms of error identification and correction, AI plays a crucial role in supporting continuous improvement and quality assurance. These systems are adept at spotting inaccuracies and suggesting corrections, which is especially important when producing documents and studies that demand high precision. This allows teams to concentrate on more strategic aspects of their work, confident that detailed tasks are being handled accurately (Sanchez & Naga, 2001). Additionally, when employees face challenges that require innovative solutions, AI can propose alternative approaches, thereby accelerating the creative process and project delivery (Cegarra-Navarro et al., 2021).

However, a significant challenge lies in ensuring that AI complements rather than replaces human interaction. While AI can automate tasks and provide data-driven insights, it lacks the empathy, creativity, and nuanced understanding inherent in human work (Holmes & Tuomi, 2022). An over-reliance on AI for assessment and feedback may diminish opportunities for meaningful dialogue and reflection, which are essential for fostering higher-order thinking (Facione, 2020). According to Bandura's Social Cognitive Theory (1986), individuals are not merely passive recipients of information; instead, they actively engage with their surroundings, which shapes their attitudes, beliefs, and behaviours. In the context of artificial intelligence (AI), the introduction of intelligent systems within organisations can significantly influence employees' perceptions and attitudes towards technology. Bandura emphasised that self-efficacy—an individual's belief in their capability to succeed in specific situations—is crucial in determining how people approach their goals, tasks, and challenges. Thus, when organisations implement AI technologies, the attitudes of employees towards these systems can profoundly affect their overall effectiveness. If employees observe successful instances of AI being used within their organisation or in similar contexts, they are more likely to develop a positive outlook on these technologies. This positive attitude can enhance their self-efficacy, leading to greater engagement with AI tools and ultimately improving organisational effectiveness.

This suggests that attitudes towards AI significantly influence various dimensions of organisational effectiveness—such as goal attainment, resource allocation, internal processes, and strategic initiatives—can be understood through the lens of Social Cognitive Theory. For example, when employees view AI as a valuable resource that can assist in achieving organisational goals, their motivation to utilise these technologies increases. This aligns with Bandura's assertion that self-efficacy influences motivation and behaviour

(Bandura, 1997). Furthermore, Social Cognitive Theory indicates that when leaders and colleagues model positive interactions with AI, it encourages others to adopt similar behaviours. This modelling effect can foster a culture of innovation and adaptability within the organisation, where employees feel empowered to leverage AI for enhanced performance. Consequently, the organisation can achieve higher levels of effectiveness through improved collaboration, streamlined processes, and informed decision-making

Method

Participants

The participants for the study consisted of 220 workers recruited from private organisations across the three senatorial zones of Anambra State—Anambra North, Anambra Central, and Anambra South. The sample comprised 40 (18.18%) males and 180 (81.82%) females, with ages ranging from 21 to 45 years. The mean age of participants was 33.77 years, with a standard deviation of 6.38. Regarding marital status, 128 (58.18%) of the participants were married, while 85 (38.64%) were single. In terms of educational qualifications, 7 (3.18%) possessed Secondary School Certificates, 128 (58.18%) held Bachelor's degrees, 23 (10.45%) had Higher National Diplomas, 18 (8.18%) held National Diplomas or National Certificates, 37 (16.82%) possessed Master's degrees, and 7 (3.18%) held doctoral degrees. The work sector distribution showed that 187 (85.00%) of the workers were employed in the public sector, while 33 (15.00%) were employed in the private sector. Participants were drawn from the three senatorial zones as follows: 57 (25.91%) from Anambra North, 59 (26.82%) from Anambra South, and 104 (47.27%) from Anambra Central. A cluster sampling technique was used to reduce the population to their respective senatorial zones.

Instruments

Two instruments were used in the study: General Attitudes towards Artificial Intelligence Scale (GAAIS) and the Organisational Effectiveness Model Inventory.

General Attitudes towards Artificial Intelligence Scale (GAAIS)

The instrument was developed by Schepman and Rodway (2020) and it consist of 20 items, and respondents indicated their level of agreement using a 5-point Likert scale from strongly disagree (0) to strongly agree (4). To explore the extent to which rated comfortableness could be captured as a function of the perceived capability of AI in comparison with humans, a correlation was run on the average rating for each item on both these measures. Shapiro-Wilks tests detected no significant deviation from a normal distribution for either measure. Therefore, a Pearson's correlation was run, giving $r = .83$, $N = 42$, $p < .001$, $r^2 = .69$. This was a relatively high association between the two variables but

with 31% of residual variance. The instrument was given convergent validity with the Organisational Effectiveness Inventory Model (OEIM)= .98, and Cronbach Alpha= .82. In this study, the researcher reported Cronbach alphas of 0.81 for positive perception, 0.82 for apprehension, 0.82 for functional acceptance, while 0.82 for the overall scale.

Organisational Effectiveness Model Inventory by Nwanzu (2010)

The Organisational Effectiveness Model Inventory was developed in Nigeria, by Nwanzu (2010). The instruments had 4 sub-inventories; each measured on a 5-point Likert scale of Likert (1932) and attained an interval scale. The instrument had convergent validity of .89 and discriminant validity of .31 with "Perception of Organisational Politics". The "Organisational Effectiveness Model Inventory" also had test-retest reliability of .73, alternate form reliability of .94, Cronbach Alpha of .96, and split-half reliability of .78 (Nwanzu, 2010). In this study, the researcher reported Cronbach alphas of 0.79 for the goal attainment model, 0.79 for the system resource model, 0.80 for the internal process model, and 0.79 for the strategic constituent model. The overall scale has a Cronbach's alpha of 0.83.

Procedure

For this study, data were collected exclusively through an online questionnaire created using a secure digital survey platform. The questionnaire was designed to be user-friendly and accessible across various devices, including smartphones, tablets, and computers. A link to the questionnaire was shared through multiple online channels, such as social media platforms, email, and messaging applications, which facilitated broad dissemination and made participation easy. To sample participants, a multistage sampling technique was employed. This approach was particularly effective given the online nature of the survey distribution, which relied on voluntary engagement from individuals who encountered the questionnaire link within their digital networks. Before participants began the questionnaire, they were presented with a detailed introduction outlining the purpose and objectives of the study. Ethical considerations were taken very seriously. Participants were informed about the voluntary nature of their involvement, the confidentiality of their responses, and the fact that the data collected would be used solely for academic purposes. The potential benefits and minimal risks associated with the study were clearly communicated. Informed consent was obtained digitally, requiring participants to indicate their agreement before they could proceed with the questionnaire

Design and Statistics

The study used a cross-sectional design and Multivariate Analysis of Variance (MANOVA) as the appropriate statistical technique because the research sought to ascertain the influence and interaction effects among the study's variables.

Results

Table: Multivariate Analysis of Variance of Attitude towards AI, and Organisational Effectiveness Dimensions

| Source | Dependent Variable: OE | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|--------|--------------------------|-------------------------|-----|-------------|------|------|---------------------|
| AIATT | Goal Attainment Model | 2326.24 | 29 | 80.22 | 1.86 | .008 | .240 |
| | System Resource Model | 2051.63 | 29 | 70.75 | 1.45 | .017 | .198 |
| | Internal Process Model | 3138.09 | 29 | 108.21 | 1.80 | .012 | .235 |
| | Strategic Constituent M. | 2063.86 | 29 | 71.17 | 1.68 | .023 | .223 |
| Error | Goal Attainment Model | 7351.37 | 190 | 43.24 | | | |
| | System Resource Model | 8317.16 | 190 | 48.92 | | | |
| | Internal Process Model | 10226.02 | 190 | 60.15 | | | |
| | Strategic Constituent M. | 7209.64 | 190 | 42.41 | | | |
| Total | Goal Attainment Model | 318288.00 | 220 | | | | |
| | System Resource Model | 296895.00 | 220 | | | | |
| | Internal Process Model | 286693.00 | 220 | | | | |
| | Strategic Constituent M. | 292633.00 | 220 | | | | |

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Discussion

The study outcome implies that positive attitudes toward AI among employees contribute meaningfully to the enhancement of organisational effectiveness. Workers who view AI favourably are more likely to embrace its implementation, integrate AI tools into their tasks, and collaborate effectively with AI systems to achieve performance goals. As AI continues to play a transformative role in streamlining processes, reducing human error, and supporting decision-making, its acceptance becomes a critical driver of organizational productivity and efficiency.

These findings are consistent with the work of Chatterjee et al. (2022), who found that organizational acceptance of AI significantly predicted gains in service delivery, innovation, and operational performance, especially in public sector institutions. Their study emphasized that beyond technological infrastructure, employee attitudes form the bedrock of successful AI integration. Where organizations actively foster a positive culture around AI, they tend to experience smoother transitions and greater performance outcomes.

From a theoretical standpoint, this result affirms the propositions of Organizational Behaviour Theory as espoused by Robbins and Coulter (2005). These theories emphasize the central role of human perceptions, motivation, and behaviour in determining organizational outcomes. Attitudes toward change—particularly technological change—are therefore pivotal in shaping how effectively organizations operate. If employees perceive AI as a threat or a burden, they may resist its adoption, reducing the overall effectiveness of the system. On the contrary, when attitudes are positive, AI becomes a tool for amplifying efficiency, innovation, and competitive advantage.

Moreover, organizational effectiveness is a multi-dimensional construct encompassing elements such as goal achievement, resource utilization, adaptability, and internal satisfaction (Cameron, 1978). AI has the capacity to enhance each of these domains, but only if it is embraced by the workforce. Positive employee attitudes toward AI can lead to better task performance, faster problem-solving, more accurate forecasting, and greater alignment with strategic objectives. The findings also support the Technology-Organization-Environment (TOE) framework, which considers technological, organizational, and environmental contexts as key factors influencing technology adoption. In this framework, organizational readiness—including cultural attitudes toward innovation—plays a decisive role in determining the success of technological transformation. Therefore, the significant influence of AI attitude on effectiveness indicates that psychological and cultural readiness is as important as technological capability.

Practically, this result suggests that organizations aiming to increase effectiveness through AI integration must not focus solely on technical deployment but also invest in shaping positive employee attitudes. This can be achieved through sensitization workshops, participatory implementation processes, ethical assurance, and ongoing support that promotes trust in AI systems. When employees feel that AI supports rather than threatens their roles, they are more likely to engage actively with the tools and contribute to organizational goals. As the workplace continues to evolve under the influence of intelligent technologies, organizations must recognize that people, not just systems, are central to technological success. Cultivating a positive AI culture within the workforce can drive not only acceptance but also higher levels of performance, adaptability, and institutional excellence. Based on the findings that attitude towards artificial intelligence

(AI) significantly influences various dimensions of organizational effectiveness, several recommendations can be made to leverage this relationship effectively:

1. Organizations should implement training and awareness programs that highlight the benefits and potential of AI technologies. By fostering a positive attitude towards AI, employees may become more open to integrating these technologies into their workflows, enhancing overall effectiveness.
2. Organizations should consider incorporating AI tools in their goal-setting and performance measurement processes. This can help streamline operations and create clearer pathways for achieving organizational objectives.
3. Organizations should allocate adequate resources for AI initiatives. This includes investing in the necessary technology, infrastructure, and training to ensure that employees can effectively utilize AI systems.
4. Organizations should develop clear strategies for AI adoption. This includes setting long-term goals for AI integration and regularly assessing progress to ensure alignment with overall organizational objectives.
5. Organizations should establish metrics to monitor the impact of AI on various dimensions of effectiveness. Regular evaluations can help identify areas for improvement and ensure that AI initiatives are delivering the desired outcomes.
6. Organizations should create channels for employee feedback regarding AI implementations. Involving employees in the decision-making process can help address concerns and build a culture of acceptance and innovation.
7. As AI technology evolves, organizations should offer continuous learning opportunities for employees to stay updated on the latest developments. This can help maintain a positive attitude towards AI and ensure that personnel are equipped to leverage these technologies effectively.

References

- Abbah, M. T. (2014). Employee motivation: The key to effective organizational management in Nigeria. *Journal of Business and Management*, 16(4), 1–8.
- Anderson, R. J., & Adams, W. A. (2015). *Mastering leadership: An integrated framework for breakthrough performance and extraordinary business results*. Wiley.
- Arubayi, D. O., & Igbomor, E. (2024). The relationship between career adaptability and employee retention. *Iconic Research and Engineering Journals*, 7(11), 634-644.

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Cegarra-Navarro, J. C., Sánchez-García, J. C., Marco-Lajara, B., & García-Pérez, A. (2021). Building organizational resilience in the face of the COVID-19 pandemic: The role of strategic agility. *Sustainability*, 6(13), 1-11.
- Dada, R. O., Alegbeleye, G. O., Ikonne, C. N., & Soyemi, O. (2020). Influence of employee commitment on organizational effectiveness of university registries in South-West, Nigeria. *International Journal of Innovative Research in Education, Technology and Social Strategies*, 7(1), 79-93.
- Daft, R. L. (2021). *Organization theory and design* (13th ed.). Cengage Learning.
- Douglas, S., Merritt, D., Roberts, R., & Watkins, D. (2021). Systemic leadership development: Impact on organizational effectiveness. *International Journal of Organizational Analysis*, 1(2), 1-11.
- Enholm, I. M., Papagiannidis, E., Mikalef, P., & Krogstie, J. (2021). Artificial intelligence and business value: A literature review. *Springer*.
- Eze, C. N., & Ugwuegbu, C. O. (2022). Job involvement and organizational commitment as predictors of turnover intention among manufacturing workers in Anambra State. *African Journal of Human Resource Management*, 10(1), 42-58.
- Facione, P. A. (2020). *Critical thinking: What it is and why it counts*. Insight Assessment. Available online: <https://insightassessment.com/unlock-resources/> (accessed on 29 January 2025)
- Fosso Wamba, S. (2022). Impact of artificial intelligence assimilation on firm performance: The mediating effects of organizational agility and customer agility. *International Journal of Information Management*, 1(3), 1-8.
- Heilman, S., & Kennedy-Phillips, L. (2011). Making assessment easier with the organizational effectiveness model: Describe a comprehensive, step-by-step, mixed-methods assessment model. *Published online by American College Personnel Association and Wiley Periodicals*, 15(6), 29-32.
- Holmes, W., & Tuomi, I. (2022). State of the art and practice in AI in education. *European Journal of Education*, 57, 542-570.
- Igbomor, E. (2024). The moderating role of retention factors on the relationship between career adaptability and organizational commitment. *International Journal of Innovation Management and Organizational Behavior*, 1(3), 1-13.

- Kumkale, I. (2022). *Organizational agility*. Springer Nature Singapore.
- Kurnia, S., & Chien, S. W. (2020). Building organizational agility through strategic management accounting: A case study of an Indonesian manufacturing company. *Journal of Asia Business Studies*, 4(14), 22-36.
- Okoli, B. E., & Eze, S. C. (2022). Measuring organizational effectiveness in the digital age: An integrated framework for Nigerian enterprises. *Journal of African Business*, 23(1), 112-130.
- Sanchez, L. M., & Nagi, R. (2001). A review of agile manufacturing systems. *International Journal of Production Research*, 16, 1-9.
- Tyagi, P., Grima, S., Sood, K., Balamurugan, B., Özen, E., & Thalassinou, E. (Eds.). (2023). *Smart analytics, artificial intelligence and sustainable performance management in a global digitalised economy*. Emerald Publishing Limited.