



Exploring the Role of ChatGPT in Shaping an Innovative Organizational Culture, Responsiveness to Change, and Enhancing Human Resource Development

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Abstract

The rapid development of digital technology has prompted organizations to adopt new tools and systems to enhance operational efficiency and effectiveness. One of the latest technologies garnering widespread attention is artificial intelligence (AI), including language models like ChatGPT, capable of processing and generating text naturally. This research aims to further explore how ChatGPT can be implemented within organizations to cultivate an innovative culture, responsiveness to change, and effectively support human resource development. This study employs a literature review method with a qualitative approach. Data were collected from articles published on Google Scholar between 2021 and 2024, considering Google Scholar as a comprehensive and credible academic database. The findings indicate that ChatGPT plays a crucial role in fostering innovation by serving as a catalyst for creative ideas and new solutions. Furthermore, ChatGPT has proven to enhance organizational responsiveness to changes in the business environment by providing accurate insights based on real-time data. On the other hand, utilizing ChatGPT as an interactive training tool also aids in accelerating employee competency development. However, it is essential to consider the ethical challenges and considerations in the use of this technology, including data privacy issues and overreliance. With the right approach, ChatGPT can become a valuable tool for organizations to enhance their performance and competitiveness in this digital era.

Keyword: ChatGPT, Human Resources, Organisational Innovation, Organisational Responsiveness

1. INTRODUCTION

The rapid advancement of digital technology has propelled organizations to adopt innovative tools and systems to enhance their operational efficiency and effectiveness. Among the latest technologies garnering attention is artificial intelligence (AI), which includes language models like ChatGPT capable of processing and generating text with a human-like conversational flexibility [1].

In an era of increasingly fierce global competition, organizations are faced with demands to continually innovate as a key to success. Innovation is no longer solely focused on product and service development but extends into business processes and even organizational culture itself [2]. In this context, the presence of ChatGPT offers significant opportunities. With its ability to generate creative ideas and solutions that may not have been previously considered, ChatGPT has the potential to be a primary driver in strengthening a culture of innovation within an organization [3].

The success of an organization is often measured by its ability to promptly and effectively respond to changes occurring in its business environment. In facing the ever-changing dynamics of the market, organizations must adapt quickly. This is where the crucial role of ChatGPT lies. With its ability to provide in-depth analysis of market trends, customer feedback, and regulatory changes, ChatGPT can offer valuable insights for organizational strategic decision-making [4].

In the context of organizational dynamics, human resources are considered the most valuable asset. The importance of developing employee competencies and skills in achieving long-term success cannot be underestimated. Here, the role of ChatGPT as a training and development tool becomes highly relevant. ChatGPT enables organizations to enhance the effectiveness and efficiency of their human resource development programs by providing personalized training materials, answering questions, and offering continuous support to employees [5].

The importance of effective communication in shaping a healthy organizational culture cannot be overlooked. Good communication plays a key role in strengthening the relationship between employees and management, as well as facilitating timely and accurate information flow throughout the organization. This is where the role of ChatGPT becomes significant. As a tool capable of facilitating internal communication, ChatGPT provides a platform for faster and more accurate information exchange among all stakeholders within the organization [6].

The importance of effective knowledge management in maintaining an organization's competitiveness cannot be underestimated. In an era where information is a crucial asset, organizational success often depends on its ability to gather, store, and manage knowledge efficiently. This is where the role of ChatGPT becomes relevant. As a dynamic knowledge repository, ChatGPT can store and organize important information in a way that is easily accessible to employees [7].

Based on observations of the workplace, it can be concluded that many organizations face challenges in streamlining employee productivity due to administrative tasks that consume time. Integrating ChatGPT as an automation solution can provide significant benefits. Leveraging its natural language processing capabilities, ChatGPT can be instructed to handle repetitive and time-consuming administrative tasks such as data processing, scheduling, or compiling routine reports [8]. Employees can free themselves from these burdensome tasks and redirect their focus to activities that are more strategic and valuable to the organization.

With the increasing focus on the importance of data analysis in the context of managerial decision-making, the presence of ChatGPT offers significant potential. ChatGPT's advanced data analysis capabilities can serve as a valuable tool for management in guiding the decision-making process [9]. By leveraging state-of-the-art data analysis techniques, ChatGPT can provide insights based on relevant data and deep predictive analysis. With access to comprehensive and structured information, management can make more informed decisions, reduce the risk of errors, and minimize uncertainty in complex business environments.

Referring to the above research, this research aims to further explore how ChatGPT can be implemented within organizations to cultivate an innovative culture, responsiveness to change, and effectively support human resource development. Through this research, it is hoped that various strategies and best practices in leveraging AI technology to enhance overall organizational performance can be identified. It means, ChatGPT can stimulate innovation within organizations by generating novel ideas and solutions. Its ability to offer diverse perspectives and creative insights can challenge traditional thinking, thus fostering a culture that values and encourages innovation.

Therefore, the Research Question in this study is "How can organizations effectively implement ChatGPT to foster an innovative culture, enhance responsiveness to market changes, and support human resource development for improved overall performance?"

2. MATERIALS AND METHOD

This research employed a literature review method with a qualitative approach to identify, analyze, and synthesize relevant literature regarding the use of ChatGPT in shaping an innovative, change-responsive organizational culture, and supporting human resource development. Data were gathered from articles published on Google Scholar between 2021 and 2024, considering Google Scholar's comprehensive and credible academic database. The data collection process commenced with an initial search using keywords such as "ChatGPT," "organizational innovation," "organizational responsiveness," and "human resource development." From this search, 51 relevant articles were obtained.

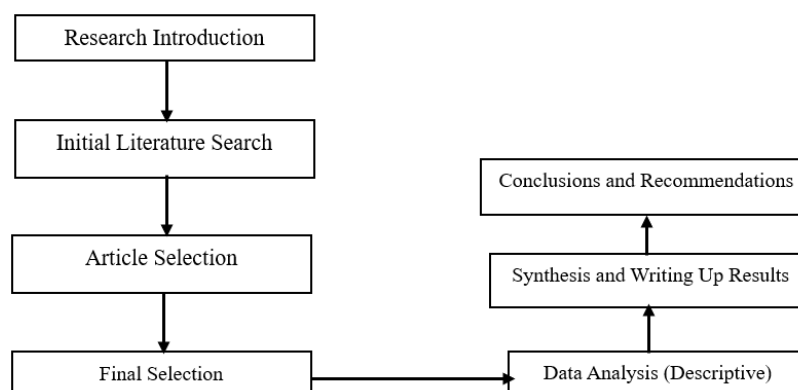


Figure 1. Flowchart Methodology

These articles were then selected based on criteria such as topic relevance, journal or conference credibility and reputation where the articles were published, publication year, as well as the number of citations

and the influence of the articles in related fields. After rigorous selection, 23 articles deemed most relevant and of high quality were chosen for further analysis. Data analysis was conducted descriptively using a qualitative method, wherein each article was thoroughly reviewed to identify main themes, key findings, and conclusions relevant to the research objectives. The analysis results were then synthesized to provide a comprehensive overview of the role of ChatGPT in shaping an innovative, responsive organizational culture, and supporting human resource development. Below is the research flowchart illustrating the process flow of this study show figure 1.

3. RESULTS AND DISCUSSION

This research has successfully unveiled several key findings regarding the implementation of ChatGPT in organizations, particularly in shaping an innovative, change-adaptive culture, and supporting human resource development. Based on analysis of many selectively chosen articles, it is evident that ChatGPT plays a significant role in driving organizational innovation, enhancing responsiveness to market dynamics and business environment changes, and expediting the development of employees' competencies and skills. The utilization of ChatGPT demonstrates substantial potential in strengthening organizational frameworks in confronting contemporary challenges through a more structured and technology-driven approach.

Table 1. Review of ChatGPT Research in Organisations

Name	Year	Results
Kraugusteeliana et al.	2023	AI, including language models like ChatGPT, enhances organizational innovation by offering creative ideas and solutions.
Diawati et al.	2023	Innovation in organizations extends beyond products/services to business processes and culture, where ChatGPT can drive innovation.
Jusman et al.	2023	ChatGPT provides valuable insights for strategic decision-making by analyzing market trends, customer feedback, and regulatory changes.
Sutrisno et al.	2023	ChatGPT strengthens a culture of innovation by generating novel ideas and solutions, enhancing organizational adaptability and responsiveness.
Iswahyudi et al.	2023	ChatGPT serves as a training and development tool, enhancing HR programs by providing personalized training materials and continuous support.
Nurhaida et al.	2023	ChatGPT facilitates internal communication, improving information exchange among stakeholders within organizations.
Ayinde et al.	2023	ChatGPT acts as a dynamic knowledge repository, efficiently storing and organizing important information for easy access.
Dwivedi et al.	2023	ChatGPT automates repetitive administrative tasks, freeing up employees to focus on more strategic activities.
Dowling & Lucey	2023	ChatGPT's advanced data analysis capabilities aid managerial decision-making by providing insights and deep predictive analysis.
Ausat et al.	2023	ChatGPT fosters innovation by generating creative ideas and enhancing competitiveness through data-driven recommendations.
Arman & Lamiya	2023	Integrating ChatGPT into innovation processes improves the quantity and quality of generated ideas.
Singh	2023	ChatGPT enhances organizational responsiveness to market changes by providing real-time data analysis and insights.
Antonius et al.	2023	Organizations adopting ChatGPT demonstrate higher adaptability to market changes, enhancing competitiveness.
N. Malik	2023	ChatGPT serves as an interactive training tool, providing personalized training modules and real-time answers to employees' questions.
A. Malik et al.	2023	Integrating ChatGPT into training programs accelerates learning processes and assists employees in solving daily challenges.
Viorennita et al.	2023	ChatGPT adjusts training materials based on individual needs, providing a more effective learning experience.
Diantoro et al.	2024	Strategic implementation of ChatGPT, supported by adequate training and technological infrastructure, optimizes its benefits.
Ferdush et al.	2024	Building technological infrastructure supports the optimal integration and accessibility of ChatGPT within organizations.
Cooper	2023	Management plays a crucial role in fostering an innovation-supportive culture, encouraging experimentation and risk-taking.
Menon & Shilpa	2023	ChatGPT enhances responsiveness to change by providing real-time data analysis and recommendations for swift decision-making.
Kayalı et al.	2023	ChatGPT complements traditional HR development programs by providing additional training and real-time knowledge support.
Chan & Colloton	2024	ChatGPT reduces administrative workload through automation, allowing employees to focus on more strategic tasks.

Name	Year	Results
Jacobs et al.	2021	Transparency and accountability are essential in ChatGPT implementation to ensure data privacy, security, and ethical usage.

One of the main themes explored in the literature is ChatGPT's ability to foster innovation in the organizational context. Various articles indicate that ChatGPT has the potential to act as a catalyst for generating creative ideas and innovative solutions that were previously unthought-of by individuals or teams. Through in-depth data analysis and data-driven recommendations, ChatGPT assists organizations in producing innovative ideas that can enhance competitiveness [10]. Case studies analyzed reveal that organizations integrating ChatGPT into their innovation processes experience significant improvements in both the quantity and quality of generated ideas [11]. However, it's important to note that human involvement remains crucial in the evaluation and implementation of generated ideas, as human abilities to assess contexts and consider non-technical factors cannot be entirely replaced by technology. This suggests that ChatGPT's role is more supportive, enhancing human innovation capabilities, rather than replacing human roles in the entire innovation process.

The research also found that ChatGPT has the potential to enhance organizational responsiveness to continuously changing business environments. ChatGPT's ability to quickly analyze large amounts of data and provide accurate insights enables organizations to make more timely decisions based on the latest information [12]. From the analyzed articles, organizations adopting ChatGPT demonstrate higher adaptability to emerging market changes and trends, consequently enhancing their competitiveness in the global market [13]. However, it's important to emphasize that ChatGPT usage should remain under human supervision. This is because final decisions should consider various complex factors that machines may not fully interpret, such as ethical, contextual, and strategic aspects requiring human judgment. This underscores the integration of ChatGPT as a supportive tool to strengthen human adaptability and responsiveness to change, without eliminating the crucial role of humans in the decision-making process overall.

In the context of human resource development, ChatGPT has shown significant benefits. Analyzed articles indicate that ChatGPT can be used as an interactive training tool providing personalized training modules and real-time answers to employees' questions [14]. This enables employees to receive the support they need anytime, ultimately enhancing their skills and competencies. One study suggests that integrating ChatGPT into training and development programs can accelerate the learning process and assist employees in solving daily challenges [15]. As a sophisticated training tool, ChatGPT can adjust training materials based on individual needs, providing a more effective and efficient learning experience [16]. This not only improves learning outcomes but also boosts employee motivation for continuous learning and development. However, it's crucial to ensure that information provided by ChatGPT is always accurate and aligned with employees' specific needs, ensuring its usage genuinely supports established learning and development goals. Continuous monitoring and periodic evaluation are necessary to maintain the quality and relevance of provided content, ensuring that this technology functions as an effective complement to traditional training methods rather than an absolute replacement. This integration highlights the importance of synergy between technology and humans in creating a dynamic, sustainably oriented work environment.

Despite the many benefits offered by ChatGPT, this research also highlights several challenges and ethical considerations that must be seriously addressed. Data privacy and information security issues are primary concerns that cannot be overlooked. Organizations need to ensure that data used by ChatGPT is strictly protected to prevent misuse and information leaks. Other challenges include the risk of excessive dependence on this technology, which may diminish essential human interactions necessary for building interpersonal relationships and a healthy organizational culture. Additionally, efforts should be made to ensure that this technology does not replace human roles entirely but rather functions as a tool to enhance human capabilities in various operational and strategic aspects. Organizations should develop policies and practices that ensure ChatGPT usage aligns with high ethical values and professional standards. Ongoing evaluation and improvement of security policies are crucial to maintaining data integrity and the trust of employees and stakeholders in this technology. In the long run, the synergy between technological sophistication and human wisdom is expected to create a more efficient, secure, and ethical work environment.

Furthermore, this research emphasizes the importance of a strategic approach in implementing ChatGPT to ensure the achievement of expected benefits. One key aspect to consider is the need for adequate training and education for employees in effectively using this technology. Organizations need to develop and provide comprehensive training programs that not only explain the basics of ChatGPT usage but also facilitate a deep understanding of its various advanced features. These training programs should be designed in a way that allows employees to integrate ChatGPT into their daily workflow, thereby enhancing efficiency and productivity. Additionally, ongoing education programs should be implemented to ensure that employees remain up-to-date with the latest developments in this technology and can adapt its usage to the evolving needs of the organization. This strategic approach will help optimize the use of ChatGPT, maximize the benefits that can be gained, and ensure that this technology genuinely supports operational tasks and strategic initiatives of

the company [17]. Good implementation also involves regular evaluation of the effectiveness of training programs and necessary adjustments based on feedback from employees, ensuring that they feel supported and able to use this technology to achieve optimal performance.

The importance of building adequate technological infrastructure to support the integration of ChatGPT into existing organizational systems cannot be ignored. A robust infrastructure will ensure that ChatGPT can operate optimally and be accessed by all employees as needed [18]. To achieve this goal, close collaboration between the IT department and other departments is crucial. Successful integration requires good coordination to ensure that every system component functions harmoniously, and that employees have easy and fast access to this technology. Additionally, the IT department should collaborate with management and operational teams to identify specific needs and tailor ChatGPT implementation to fit the organization's workflow. Continuous maintenance and system updates should also be prioritized to address potential technical issues and ensure that this technology is always in optimal condition. This holistic approach will enable organizations to maximize the potential of ChatGPT, enhance operational efficiency, and achieve strategic goals more effectively.

In the context of innovation, organizations must cultivate a culture that supports experimentation and risk-taking. While ChatGPT can generate various new ideas, without an innovation-supportive culture, these ideas are likely to remain unimplemented [19]. Management plays a crucial role in encouraging employees to explore new ideas generated by ChatGPT and providing the necessary support to develop and test these ideas. This support can come in the form of resources, time, and an environment that allows employees to experiment without fear of failure. Management also needs to ensure the existence of an effective feedback system so that each experiment can be thoroughly evaluated, and learnings from each trial can be integrated into subsequent innovation processes. Additionally, it is important for organizations to recognize and appreciate employees' innovative initiatives, creating incentives that encourage creativity and courage in taking risks. Through this comprehensive approach, organizations can build a strong foundation for sustainable innovation, harnessing the full potential of ChatGPT and creating a dynamic and progressive work environment.

In terms of responsiveness to change, organizations must ensure the existence of effective mechanisms for continuous data collection and analysis. ChatGPT can play a significant role in this process by providing real-time data analysis and recommendations based on the latest trends [20]. However, for these recommendations to be well-implemented, organizations must have flexible and adaptive processes. This process enables swift actions based on the analysis and recommendations provided by ChatGPT. It is also important to ensure that each recommendation generated is carefully evaluated and followed up with appropriate policies, considering the rapidly changing dynamics of the market and the complexity of the modern business environment. The integration between technological analysis and strategic decision-making by humans must be optimized to achieve maximum responsiveness. Organizations should create structures that support quick decision-making without sacrificing accuracy and relevance, enabling them to remain competitive and adaptive in facing new challenges and opportunities.

In the context of human resource development, organizations need to view ChatGPT as a complementary tool that strengthens existing training and development programs. ChatGPT can be used to provide additional training and real-time knowledge support, but human interaction roles cannot be ignored [21]. Face-to-face training and mentoring should remain core elements of human resource development programs, given their significant value in building interpersonal skills, deep understanding, and strong professional relationships. The integration of this technology should be designed to complement and enhance the effectiveness of traditional training rather than replace it. Additionally, continuous evaluation of training methods and content is required to ensure that the combination of technology and human interaction can produce optimal results in employee competency and skill development. Organizations should also ensure that each ChatGPT-based training is contextualized to the specific needs of individuals while ensuring that this personalized approach aligns with broader strategic goals. This holistic approach will enable organizations to maximize the potential of ChatGPT in supporting effective and sustainable human resource development.

In addition to the benefits mentioned, this research found that ChatGPT has the potential to reduce administrative workload through the automation of routine tasks. By implementing this technology, employees can be directed to focus on more strategic and creative tasks, potentially increasing overall productivity and efficiency. The use of ChatGPT to automate administrative tasks such as document filing, meeting scheduling, and handling routine requests can free up time and energy for employees to engage in activities that require critical thinking and creativity [22]. However, it is important for organizations to ensure that this automation does not compromise the quality or authenticity of task execution. Careful evaluation and strict supervision are required to ensure that ChatGPT can make a meaningful contribution to reducing administrative workload without sacrificing the core values of the organization or diminishing important human interactions in collaborative work contexts.

In terms of ethical challenges and considerations, this research highlights the significance of transparency and accountability in the implementation of ChatGPT. Organizations have a responsibility to ensure that employees have a comprehensive understanding of how their data is used and protected in the use of ChatGPT. Additionally, it is important for organizations to formulate clear policies regarding the use of this

technology and ensure that its usage aligns with ethical principles and corporate social responsibility. The adoption of technology should prioritize data privacy and security, as well as consider the ethical implications of each decision made [23]. To achieve this goal, organizations need to encourage open communication and collaboration among relevant departments, including IT, information security, and ethics policy. These steps will help ensure that the use of ChatGPT not only provides operational benefits but also integrates effectively with strong ethical principles, supporting the overall positive image and integrity of the organization.

In summary, this research illustrates the great potential of ChatGPT to shape an innovative, responsive, and supportive human resource development culture. However, the success of implementing this technology depends heavily on the strategic approach taken by organizations. This includes steps such as training employees to utilize ChatGPT effectively, building appropriate infrastructure to support the integration of this technology, fostering an innovation culture that strengthens collaboration and experimentation, and implementing policies that address the challenges and ethical considerations in using ChatGPT. With a planned and appropriate approach, ChatGPT has the potential to be a valuable tool in enhancing organizational performance and competitiveness in this digital era. Therefore, organizations should carefully consider these aspects in their efforts to adopt and leverage ChatGPT effectively in the complex cultural and work environment contexts.

Tabel 2. Review of Research on the Development of ChatGPT in Organisational Culture

No	Finding	Description
1	Driving Innovation	ChatGPT serves as a catalyst for creative ideas and new solutions by deeply analyzing data and providing data-driven recommendations. Organizations that integrate ChatGPT into their innovation processes see significant increases in the quantity and quality of ideas generated. Human roles remain crucial in evaluating and implementing these ideas.
2	Enhancing Responsiveness	ChatGPT enables organizations to make more timely and informed decisions by quickly and accurately analyzing large volumes of data. Organizations using ChatGPT can adapt more swiftly to market changes and trends, thereby enhancing their competitiveness. Final decisions should remain under human oversight to consider factors that may not be interpretable by machines.
3	Human Resource Development	ChatGPT can be used as an interactive training tool, providing personalized training modules and real-time responses to employee queries. This allows for improved skills and competencies among employees. ChatGPT accelerates the learning process and aids in daily problem-solving. Information provided must be accurate and tailored to specific employee needs.
4	Reducing Administrative Workload	ChatGPT can automate routine tasks, allowing employees to focus on more strategic and creative work, ultimately increasing organizational productivity and efficiency.
5	Challenges and Ethical Considerations	Data privacy and information security are primary concerns. Organizations must ensure that data used by ChatGPT is well-protected and that its use is ethical, not replacing essential human interactions in building relationships and organizational culture.
6	Strategic Approach to Implementation	Successful implementation of ChatGPT heavily depends on a strategic approach, including employee training, supporting infrastructure, and fostering a culture of innovation. Organizations should provide comprehensive training programs, ensure adequate technological infrastructure, and support experimentation and risk-taking.
7	Transparency and Accountability	Maintaining transparency and accountability in the use of ChatGPT is crucial. Employees must understand how their data is used and protected. Organizations should have clear policies on the use of ChatGPT and ensure the technology is used ethically and responsibly.

The use of ChatGPT in an organizational context has significant implications. Not only does it have the potential to be a catalyst for innovation and creativity by generating new solutions that can improve competitiveness, but it also enables faster response to changing markets and business trends. In addition, ChatGPT can be used as a tool for human resource development by providing personalized training, as well as automating administrative tasks to improve operational efficiency. However, its use also presents challenges related to data privacy, information security, and the risk of over-reliance on technology. ChatGPT implementation requires a strategic approach that includes building a robust technology infrastructure and an organizational culture that supports innovation and risk-taking.

4. CONCLUSION

From this research, it is evident that the use of ChatGPT holds great potential in shaping an innovative organizational culture, responsive to change, and supportive of human resource development. Findings from

the analysis of 23 articles indicate that ChatGPT plays a significant role in fostering innovation by serving as a catalyst for creative ideas and new solutions. Additionally, ChatGPT has been shown to enhance organizational responsiveness to changes in the business environment by providing accurate insights based on real-time data. On the other hand, the use of ChatGPT as an interactive training tool also aids in accelerating employee competency development. However, it is important to remain mindful of the challenges and ethical considerations in the use of this technology, including data privacy issues and excessive reliance. With the right approach, ChatGPT can be a valuable tool for organizations in enhancing their performance and competitiveness in this digital era. Based on the findings of this research, several recommendations can be provided to organizations considering adopting ChatGPT:

1. **Thorough Consideration:** Before implementing ChatGPT, organizations need to thoroughly consider its potential impacts and prepare to address the challenges and ethical issues that may arise.
2. **Employee Training:** It is important to conduct comprehensive training programs for employees to understand and effectively utilize ChatGPT. This training should cover technology usage, ethics in usage, and how to integrate ChatGPT into daily workflows.
3. **Adequate Technological Infrastructure:** Organizations should build technological infrastructure that supports the integration of ChatGPT with existing systems. Collaboration between the IT department and other departments is crucial to ensure successful implementation.
4. **Innovation Culture:** Organizations need to cultivate a culture that supports experimentation and risk-taking. Management should encourage employees to explore new ideas generated by ChatGPT and provide necessary support to develop and test these ideas.
5. **Responsiveness to Change:** Organizations should have effective mechanisms for continuously collecting and analyzing data. ChatGPT can assist in this process by providing real-time data analysis and recommendations based on the latest trends.
6. **Human Resource Development:** ChatGPT should be seen as a complementary tool in existing employee training and development programs. It is important to maintain human interaction in this process to create a holistic learning experience.
7. **Transparency and Accountability:** Organizations should maintain transparency and accountability in the use of ChatGPT. Employees should be ensured to understand how their data is used and protected, and organizations should have clear policies regarding the use of ChatGPT.

By effectively implementing these recommendations, organizations can harness the full potential of ChatGPT to enhance their performance and competitiveness in this digital era.

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