

Identifying Cross-cultural Leadership in the Interpretation of Generative Artificial Intelligence (AI) Models

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Abstract: The increasing globalization of organizations has intensified the importance of cross-cultural leadership and the ability of leaders to operate effectively in diverse cultural environments. At the same time, generative artificial intelligence (AI) models and large language models (LLMs) have become influential sources of information and interpretation in management and organizational studies. Despite the growing use of AI systems in decision-making and knowledge generation, limited research has examined how generative AI models interpret complex social science concepts such as cross-cultural leadership. This study addresses this gap by exploring whether leading generative AI models synthesize established leadership theories consistently with the academic literature. The purpose of this study is to conduct a qualitative comparative analysis of five leading generative AI models—Google Gemini, OpenAI GPT, Microsoft Copilot, Meta AI, and DeepSeek AI—in relation to their interpretations of cross-cultural leadership. The study employed an exploratory qualitative case study design based on purposive sampling. Data were collected through a structured interview form consisting of five research questions derived from the Hofstede framework and the GLOBE project. The responses generated by the AI models were analyzed using thematic content analysis and comparative analysis to identify common themes, differences, and theoretical consistencies. The findings indicate that all AI models conceptualize leadership as a process combining universal leadership traits with culture-specific behavioral expectations. The models consistently emphasized the importance of cultural intelligence, adaptability, communication, integrity, and contextual leadership effectiveness. The analysis also revealed varying levels of theoretical depth among the models, while Microsoft Copilot and Meta AI produced highly similar responses. This study contributes to the literature by introducing an innovative methodological perspective in which generative AI models are treated as expert participants in qualitative social science research rather than merely analytical tools. The findings provide insights into the capacity of AI systems to synthesize established leadership theories and may support future applications of AI in management education, leadership development, and decision-support processes in multicultural organizations.

Keywords: Cross-cultural leadership, Generative language models, Artificial intelligence, Social potential management, Content analysis, Chat GPT

1. Introduction

Leadership has become one of the most important determinants of organizational effectiveness in an increasingly globalized and technology-driven world. Organizations operating across national and cultural boundaries are required to manage multicultural teams, diverse communication styles, and different expectations regarding authority, collaboration, and decision-making (Mendenhall et al., 2012). As a result, leadership is no longer viewed solely as a universal set of managerial competencies but rather as a context-dependent phenomenon shaped by cultural, institutional, and social conditions (Avolio, Walumbwa, & Weber, 2009).

The growing importance of cross-cultural interactions has significantly increased scholarly interest in cross-cultural leadership. Research in this field demonstrates that leadership effectiveness is strongly influenced by cultural expectations and socially constructed values (Javidan, Dorfman, de Luque, & House, 2006). Hofstede's cultural dimensions framework showed that societies differ in terms of power distance, individualism–collectivism, uncertainty avoidance, and related cultural characteristics, which directly affect leadership preferences and organizational behavior (Hofstede, 1980; 2001). Similarly, the GLOBE (Global Leadership and Organizational Behavior Effectiveness) project confirmed that while some leadership attributes are perceived as universally desirable, leadership effectiveness remains deeply embedded in cultural context (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Studies associated with the GLOBE framework demonstrated that characteristics such as integrity, trustworthiness, and charismatic leadership are positively valued across societies, although their interpretation and behavioral expression vary substantially between cultures (Den Hartog, House, Hanges, Ruiz-Quintanilla, & Tüz, 1999).

These findings suggest that leadership success cannot be easily transferred from one cultural environment to another without adaptation. Consequently, cultural intelligence (CQ), understood as the capability to function

effectively in culturally diverse situations, has become a critical leadership competency in international organizations (Earley & Ang, 2003; Ang & Van Dyne, 2008). Leaders operating in multicultural environments must therefore possess not only managerial and interpersonal skills but also the ability to recognize cultural expectations, adapt communication styles, and respond appropriately to culturally embedded organizational norms.

At the same time, recent technological developments have transformed the ways in which individuals and organizations access, interpret, and synthesize knowledge. Generative artificial intelligence (AI) systems and large language models (LLMs), such as ChatGPT, Gemini, Copilot, Meta AI, and DeepSeek AI, increasingly function as intermediaries in information processing, decision support, and knowledge generation (Dwivedi et al., 2023). Unlike traditional information systems, generative AI models are capable of producing structured interpretations, recommendations, and evaluations regarding complex organizational and social phenomena (Thorp, 2023). The literature concerns Robotic Process Automation (RPA) in organizations, the superstructure of automated systems in the form of artificial intelligence, and the development of generative AI (Chmielarz, Softysik-Piorunkiewicz & Vasylov, 2025). Recent studies further suggest that generative AI systems may increasingly influence managerial learning, organizational communication, and strategic decision-making processes (Bevilacqua et al., 2025).

Despite the rapid development of generative AI technologies, existing research has primarily focused on three dominant areas: technical model performance, ethical and algorithmic bias, and the use of AI as a productivity-support tool (Bommasani et al., 2021; Bender et al., 2021; Moreira, Mamede, & Santos, 2023). Comparatively little attention has been devoted to understanding how AI systems interpret and synthesize established theories in the social sciences, particularly in relation to leadership and cultural management. More specifically, there is limited research examining whether generative AI models reproduce, reinterpret, or simplify the theoretical foundations of cross-cultural leadership. Furthermore, recent methodological discussions emphasize that evaluating generative AI systems increasingly requires perspectives derived from social science research methodologies rather than purely technical assessment approaches (Wallach et al., 2025).

This study addresses this gap by examining how leading generative AI models conceptualize cross-cultural leadership and whether their interpretations align with established academic theories. The study adopts an exploratory qualitative case study approach in which AI models are treated as expert-like research participants capable of synthesizing theoretical and practical knowledge derived from large-scale textual data. This methodological perspective is consistent with emerging discussions regarding the integration of generative AI into qualitative and interpretive social science research (Davidson & Karell, 2025).

Accordingly, the study seeks to answer the following research questions:

RQ1: Is there a universal definition of leadership, including cross-cultural leadership?

RQ2: Which leadership characteristics can be considered universal across cultures?

RQ3: What is the impact of culture on leadership?

RQ4: Can a leader operating successfully in one culture also succeed in another culture?

RQ5: Does every culture possess the same capacity to produce particular types of leaders?

The main purpose of this study is to conduct a qualitative comparative analysis of five leading generative AI models—Google Gemini, OpenAI GPT, Microsoft Copilot, Meta AI, and DeepSeek AI—in terms of their interpretations of cross-cultural leadership. The study contributes to the literature in two ways. It extends cross-cultural leadership research by examining how AI systems synthesize and reproduce leadership theories rooted in cultural management literature. Additionally, it introduces an innovative methodological perspective in which generative AI models are analyzed not merely as analytical tools but also as expert participants in qualitative social science research.

The remainder of the paper is organized as follows. The next section presents the theoretical background and literature review concerning cross-cultural leadership and generative AI systems. The following section explains the research methodology and analytical procedure. Subsequently, the findings and discussion are presented, followed by the conclusions, limitations, and implications for future research.

2. Literature Review

2.1 Cross-cultural Leadership and Cultural Context

The increasing globalization of organizations has significantly intensified scholarly interest in cross-cultural leadership and culturally embedded management practices. Contemporary organizations operate in multicultural environments characterized by diverse communication styles, behavioural expectations, and institutional norms. Consequently, leadership effectiveness is no longer viewed as a universally standardized phenomenon but rather as a context-dependent process shaped by cultural, social, and organizational factors (Avolio, Walumbwa, & Weber, 2009). One of the foundational theoretical frameworks in cross-cultural management research is Hofstede's cultural dimensions theory (Hofstede, 1980; 2001). Hofstede argued that national cultures differ systematically according to dimensions such as power distance, uncertainty avoidance, individualism–collectivism, masculinity–femininity, and long-term orientation. These dimensions influence organizational behaviour, managerial expectations, communication styles, and leadership preferences across societies. For example, hierarchical leadership structures tend to be more accepted in high power-distance cultures, whereas participative leadership approaches are generally preferred in low power-distance societies. Building upon Hofstede's framework, the GLOBE (Global Leadership and Organizational Behaviour Effectiveness) project provided one of the most comprehensive empirical investigations of leadership and culture across societies (House et al, 2004). Hartog et al. (1999) identified several leadership attributes—including integrity, inspirational motivation, trustworthiness, and decisiveness—that are widely valued across societies, although their interpretation and behavioural manifestation vary according to cultural context. These findings contributed to the development of a more dynamic understanding of leadership in international environments. Rather than viewing leadership as a fixed universal construct, contemporary research increasingly conceptualizes leadership as an adaptive and relational process requiring sensitivity to cultural expectations and situational conditions (Javidan et al., 2006). Within this context, cultural intelligence (CQ) emerged as a particularly important theoretical concept. Cultural intelligence refers to an individual's capability to function effectively in culturally diverse settings (Earley & Ang, 2003). Ang and Van Dyne (2008) further conceptualized CQ as a multidimensional construct involving cognitive, motivational, and behavioural capabilities that enable individuals to adapt successfully across cultures. Leaders possessing high levels of cultural intelligence are generally more capable of managing intercultural communication, resolving cultural misunderstandings, and adapting leadership behaviour to local expectations.

2.2 Generative Artificial Intelligence and Knowledge Synthesis

Parallel to developments in cross-cultural management research, recent advances in generative artificial intelligence (AI) have transformed how knowledge is produced, interpreted, and disseminated. Large language models (LLMs), including ChatGPT, Gemini, Copilot, Meta AI, and DeepSeek AI, are increasingly used for information retrieval, decision support, content generation, and analytical interpretation across multiple domains (Dwivedi et al., 2023). Unlike traditional information systems, generative AI models do not merely retrieve existing information but synthesize large-scale textual data to generate coherent narratives, explanations, and conceptual interpretations (Thorp, 2023). This capability has expanded the potential role of AI systems within education, business management, leadership development, and organizational learning processes. Current research concerning generative AI has primarily concentrated on three major areas. The first focuses on technical capabilities, including language processing, reasoning performance, coding ability, and multimodal integration (Bommasani et al., 2021). The second research stream examines ethical and societal concerns such as algorithmic bias, misinformation, transparency, and fairness (Bender et al., 2021; Noble, 2018). The third perspective investigates the use of generative AI as a productivity-support tool within organizational and educational settings (Moreira, Mamede, & Santos, 2023). More recently, researchers have begun exploring the implications of generative AI for management and leadership studies. Bevilacqua et al. (2025) argued that AI systems may increasingly influence managerial learning, strategic decision-making, and leadership development practices. Similarly, Berkovich (2025) emphasized the growing role of AI-assisted leadership processes in educational and organizational environments.

2.3 Generative AI in Social Science Research

The rapid expansion of generative AI technologies has also generated important methodological discussions within the social sciences. Traditionally, AI systems were treated primarily as analytical tools used for automation, data processing, or predictive modelling. However, recent studies suggest that generative AI systems may increasingly function as active participants in knowledge production and interpretive processes (Davidson & Karell, 2025). This methodological transformation is particularly relevant for qualitative and

interpretive research traditions, where meaning construction, discourse generation, and conceptual interpretation play central roles. Davidson and Karell (2025) argued that generative AI systems can contribute to social science research not only through analytical support but also through simulated interpretive interaction and theory synthesis. Similarly, Wallach et al. (2025) emphasized that evaluating generative AI systems increasingly requires frameworks derived from social science methodology rather than purely technical performance metrics.

2.4 Research gap and Contribution

Although both cross-cultural leadership research and generative AI studies have expanded rapidly in recent years, the intersection between these two fields remains substantially underexplored. Existing leadership studies primarily focus on human leaders, organizational behaviour, and intercultural management practices, whereas AI-related studies tend to emphasize technical capabilities, ethical risks, or productivity applications. Relatively little attention has been devoted to understanding how generative AI systems interpret and synthesize culturally embedded leadership theories. More specifically, there is limited research examining whether AI-generated interpretations align with established frameworks such as Hofstede's cultural dimensions theory, the GLOBE project, and cultural intelligence theory. This gap is increasingly important because generative AI systems are becoming influential intermediaries in organizational learning, managerial decision-making, leadership development, and educational contexts. Understanding how these systems conceptualize leadership may therefore have significant theoretical and practical implications.

3. Research Method

3.1 Research Approach

This study adopted an exploratory qualitative research design to examine how leading generative artificial intelligence (AI) systems interpret and conceptualize cross-cultural leadership. A qualitative approach was considered appropriate because the primary purpose of the study was to analyze meanings, interpretations, conceptual patterns, and theoretical consistencies reflected in AI-generated responses rather than to test statistical relationships or causal hypotheses (Creswell & Creswell, 2018).

The study was designed as an exploratory case study because the use of generative AI systems as interpreters of social science theories remains a relatively recent and underexplored phenomenon. Case study methodology is particularly suitable for investigating contemporary phenomena within complex and evolving contexts where theoretical boundaries are still emerging (Yin, 2018). In this research, AI systems were treated as knowledge-synthesizing entities capable of generating structured interpretations derived from large-scale textual data.

The methodological orientation of the study was further informed by interpretivist qualitative traditions emphasizing meaning construction, discourse interpretation, and contextual analysis (Lincoln & Guba, 1985). Rather than evaluating technical AI performance, the research focused on how AI systems synthesize and reproduce leadership theories embedded within academic and organizational discourse.

3.2 Selection of AI Models

The research sample consisted of five publicly accessible large language models (LLMs): OpenAI GPT, Google Gemini, Microsoft Copilot, Meta AI, and DeepSeek AI. The models were selected through purposive sampling based on three primary criteria:

- widespread global usage,
- accessibility to general users,
- and representation of different technological ecosystems and AI developers.

Purposive sampling was considered appropriate because the study aimed to compare leading and widely recognized AI systems rather than achieve statistical representativeness (Patton, 2015).

Only freely accessible public versions of the selected AI models were included in the study. This decision was made to reflect the experience of ordinary users, students, managers, and organizations interacting with generative AI systems in real-world contexts. Since AI systems are updated continuously, the findings represent a point-in-time analysis conducted in November 2025.

3.3 Data Collection Procedure

Data were collected using a structured interview protocol developed specifically for this study. A structured format was intentionally selected to maximize consistency and comparability across AI-generated responses. All AI systems received identical prompts, instructions, contextual framing, and sequencing of questions in order to minimize variability related to prompt design and interaction structure.

The interview protocol consisted of five research questions focusing on:

- the universality of leadership,
- universal leadership characteristics,
- the influence of culture on leadership effectiveness,
- leadership transferability across cultures,
- and the relationship between culture and leadership archetypes.

The research questions were developed based on the theoretical foundations of cross-cultural leadership literature, particularly Hofstede's cultural dimensions theory (Hofstede, 1980; 2001), the GLOBE project (House et al., 2004), and cultural intelligence theory (Earley & Ang, 2003; Ang & Van Dyne, 2008).

To improve contextual consistency, all AI systems were instructed to respond as experts in leadership and organizational behavior. The generated responses were copied verbatim into a text document without modification and treated as the primary qualitative dataset.

The use of standardized prompts is increasingly recommended in generative AI research to improve procedural transparency, interpretive consistency, and methodological comparability (Davidson & Karell, 2025).

3.4 Data Analysis

The collected data were analyzed using thematic content analysis supported by comparative analysis techniques. These methods were selected because they allow systematic examination of qualitative textual data and facilitate the identification of recurring concepts, interpretive patterns, similarities, and differences across responses (Braun & Clarke, 2006).

The analysis process was conducted in several stages.

All AI-generated responses were read repeatedly to ensure familiarity with the dataset and improve interpretive consistency. During the initial coding stage, meaningful words, recurring concepts, and theoretically relevant statements were identified through open coding procedures. Examples of frequently recurring codes included:

- cultural intelligence,
- adaptability,
- integrity,
- communication,
- leadership flexibility,
- contextual leadership,
- trust,
- hierarchy,
- and intercultural awareness.

Then related codes were grouped into broader conceptual categories and themes associated with the research questions. The thematic structure primarily focused on:

- universal leadership characteristics,
- the role of culture in leadership effectiveness,
- adaptability and cultural intelligence,
- and culturally shaped leadership prototypes.

Third, comparative analysis was conducted across the five AI models to identify similarities and differences regarding theoretical interpretation, conceptual sophistication, explanatory depth, and terminology. Particular attention was devoted to examining whether the AI-generated responses reflected established cross-cultural leadership theories and whether certain models demonstrated more advanced theoretical integration.

This comparative stage enabled the identification of overlapping conceptual patterns as well as unique interpretive tendencies among the analyzed AI systems.

4. Analysis and Discussion of Results

4.1 Overview of Findings

The analysis revealed a substantial degree of consistency among the five generative artificial intelligence (AI) models regarding the interpretation of cross-cultural leadership. Although the models differed in terms of explanatory detail, conceptual emphasis, and interpretive style, all systems generally reflected the core assumptions of established cross-cultural leadership literature. The findings suggest that the analyzed AI systems conceptualize leadership as both a universal and context-dependent phenomenon. On the one hand, the models identified several leadership characteristics that are broadly valued across cultures. On the other hand, they emphasized that leadership effectiveness depends heavily on cultural expectations, communication styles, organizational norms, and social values. These findings strongly align with previous cross-cultural leadership research emphasizing the contextual nature of leadership effectiveness (House et al., 2004; Javidan et al., 2006).

The thematic analysis generated four dominant themes:

- universal leadership characteristics,
- the influence of culture on leadership effectiveness,
- cultural intelligence and adaptability,
- and culturally shaped leadership archetypes.

Overall, the findings demonstrated considerable theoretical alignment with Hofstede's cultural dimensions framework (Hofstede, 1980; 2001), the GLOBE project (House et al., 2004), and cultural intelligence theory (Earley & Ang, 2003; Ang & Van Dyne, 2008).

4.2 Universal Leadership Traits

One of the strongest areas of agreement among the AI models concerned the existence of universal leadership characteristics. All five systems identified leadership as a process involving influence, communication, trust-building, motivation, ethical behavior, and goal achievement. Similarly, the models consistently emphasized traits such as integrity, accountability, emotional intelligence, communication skills, fairness, and vision as universally desirable leadership qualities.

These findings are highly consistent with the GLOBE project, which identified several leadership attributes perceived positively across multiple societies (Hartog et al., 1999). The AI models repeatedly associated effective leadership with ethical and relational competencies rather than purely hierarchical authority structures. This interpretation reflects contemporary transformational and value-based leadership theories emphasizing inspiration, trust, and interpersonal effectiveness (Avolio et al., 2009).

The thematic coding process further demonstrated that universal leadership traits could be categorized into ethical, relational, communicative, cognitive, and operational dimensions. The recurrence of these categories across all models indicates a relatively stable and coherent synthesis of leadership knowledge within AI-generated responses.

At the same time, the AI systems did not conceptualize universal leadership traits as culturally independent. Instead, the findings suggest that AI models interpret leadership universality through a contextual lens in which universal values are adapted according to local cultural expectations and organizational norms.

4.3 Culture and Leadership Effectiveness

All AI models strongly emphasized the importance of culture in shaping leadership effectiveness. The responses consistently suggested that leadership styles perceived as effective in one cultural context may not necessarily produce similar outcomes in another. Concepts such as power distance, collectivism, communication style, hierarchy, participation, and social expectations frequently appeared throughout the responses. The models commonly distinguished between hierarchical cultures, where directive leadership styles are more accepted, and participative cultures, where democratic and inclusive leadership approaches are preferred. These interpretations closely reflect Hofstede's cultural dimensions theory (Hofstede, 1980; 2001) and the GLOBE project's assumptions regarding culturally endorsed leadership prototypes (House et al., 2004). Several models explicitly emphasized that leadership effectiveness depends on alignment between leadership behavior and culturally embedded expectations. This finding supports the argument that leadership effectiveness is socially constructed and interpreted through cultural frameworks rather than universally standardized (Javidan et al., 2006). Among the analysed systems, DeepSeek AI produced one of the most conceptually sophisticated

interpretations by describing culture as the “operating system” of leadership. This metaphor demonstrates an advanced synthesis of leadership and cultural theories by conceptualizing culture as the underlying mechanism shaping legitimacy, authority, communication, and organizational relationships.

4.4 Cultural Intelligence and Adaptability

Another dominant theme emerging from the analysis concerned cultural intelligence (CQ) and adaptability. Nearly all AI models emphasized that leadership success across cultures depends on the leader’s ability to adapt communication styles, behaviors, and decision-making processes according to local cultural expectations.

The responses repeatedly highlighted concepts such as flexibility, intercultural awareness, openness to learning, empathy, behavioral adaptation, and respect for local norms. These findings strongly align with cultural intelligence theory developed by Earley and Ang (2003) and later expanded by Ang and Van Dyne (2008).

Gemini and DeepSeek AI generated particularly detailed explanations regarding the dimensions of cultural intelligence. Gemini explicitly referred to cognitive, motivational, and behavioral dimensions of CQ, whereas DeepSeek AI conceptualized adaptability as a continuous learning process rather than a static leadership skill.

4.5 Differences Across AI Models

Although the responses generated by the five AI models demonstrated substantial conceptual overlap, several differences emerged regarding theoretical sophistication, explanatory detail, and interpretive style. Microsoft Copilot and Meta AI produced highly similar responses across multiple research questions, particularly regarding leadership universality and cultural adaptation. This similarity may reflect overlapping training structures, comparable response-generation mechanisms, or similarities in training data. Gemini demonstrated the strongest explicit integration of academic leadership theories and frequently generated more structured theoretical explanations. Its responses reflected relatively high alignment with the terminology and conceptual structure of cross-cultural leadership literature. DeepSeek AI generated the most metaphorical and philosophically expressive responses. Its explanations frequently emphasized leadership as a dynamic interaction between cultural systems, social expectations, and contextual adaptation. ChatGPT produced comparatively balanced and academically coherent responses, particularly regarding ethical leadership, communication, and universal leadership dimensions. The responses generated by ChatGPT generally prioritized conceptual clarity and practical applicability. Overall, the comparative analysis suggests that while leading AI systems synthesize similar theoretical foundations, they differ in explanatory sophistication, interpretive framing, and conceptual depth. These differences indicate that AI-generated managerial interpretations may vary depending on the underlying architecture, training process, and design priorities of individual systems.

5. Conclusion

5.1 Summary of Findings

This study explored how five leading generative artificial intelligence (AI) models—OpenAI GPT, Google Gemini, Microsoft Copilot, Meta AI, and DeepSeek AI—interpret the concept of cross-cultural leadership. Using a qualitative exploratory case study design supported by thematic content analysis and comparative analysis, the research examined whether AI-generated interpretations align with established leadership theories in the social sciences. The findings demonstrated a high degree of consistency between the AI-generated responses and major theoretical frameworks in cross-cultural leadership literature, particularly Hofstede’s cultural dimensions theory, the GLOBE project, and cultural intelligence (CQ) theory. Across all models, leadership was conceptualized as a multidimensional process balancing universal leadership traits with culturally specific behavioral expectations. The analysis identified four dominant themes. All AI systems emphasized several universal leadership characteristics, including integrity, trustworthiness, communication skills, emotional intelligence, accountability, and vision. The models consistently highlighted the importance of cultural context in shaping leadership effectiveness and determining acceptable leadership behaviors. Third, cultural intelligence and adaptability were identified as essential competencies for successful leadership in multicultural environments. Finally, the findings demonstrated that different cultures tend to encourage different leadership archetypes and organizational expectations.

5.2 Theoretical Contributions

This study contributes to the literature in several important ways. It extends research on cross-cultural leadership by examining how generative AI systems synthesize and reproduce established leadership theories. While previous studies have primarily focused on human leadership behavior and organizational dynamics, this

research introduces AI-generated interpretation as a new analytical dimension within leadership studies. The study contributes to the growing literature on generative AI in social sciences. Existing research on AI has largely concentrated on technical performance, ethical concerns, or productivity-related applications. In contrast, this study investigates AI systems as interpreters and synthesizers of theoretical knowledge in management and organizational studies.

5.3 Practical Implications

The findings of this study also have several practical implications for organizations, managers, educators, and leadership development practitioners. The results reinforce the importance of cultural intelligence and adaptability in international leadership contexts. Organizations operating across cultures should prioritize leadership development programs that strengthen intercultural communication, flexibility, and cultural awareness. The study suggests that generative AI systems may increasingly function as decision-support and knowledge-support tools in organizational environments. Since the analyzed models demonstrated substantial alignment with established leadership theories, AI systems may support leadership training, managerial education, and cross-cultural communication processes.

5.4 Limitations and Future Research

The findings of this study should be interpreted in light of several limitations. The study focused exclusively on five publicly available free versions of generative AI systems. More advanced or paid versions may generate more detailed, theoretically sophisticated, or contextually nuanced responses. Generative AI systems evolve continuously through updates, retraining processes, and changing datasets. Consequently, the findings represent a point-in-time analysis conducted in November 2025 and may differ if the study is replicated in future periods. Third, the study employed a qualitative research design centered on thematic interpretation rather than quantitative performance measurement. The analysis therefore focused primarily on conceptual coherence and theoretical consistency rather than statistical evaluation. Fourth, the study examined only selected AI systems and cannot be generalized to all existing or future generative AI models.

These limitations also create opportunities for future research. Future studies could compare free and premium AI systems, investigate longitudinal changes in AI-generated interpretations over time, or apply mixed-method approaches combining qualitative and quantitative analysis. Additional research may also examine AI-generated interpretations in other social science domains such as organizational culture, innovation management, conflict resolution, or strategic decision-making.

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Ethics Declaration: Consent to conduct this research was not required. The article does not contain any sensitive data. The identification of the categories used in the study was based on literature and online results obtained using free ChatGPT.

AI Declaration: Five free AI tools were used during the preparation of this article: Google Gemini, OpenAI GPT, Microsoft Copilot, Meta AI, and DeepSeek AI to identify category attributes related to cross-cultural leadership. The authors reviewed and edited the content of the paper with AI tools and Grammarly, and take full responsibility for it.

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