

# Building cross-cultural communication effectiveness: The role of cultural intelligence in managing anxiety, uncertainty, and knowledge sharing

Nikmah Suryandari<sup>1\*</sup>, Farida Nurul Rahmawati<sup>1</sup>, Netty Dyah Kurniasari<sup>1</sup>, Nadya Poernamasari<sup>1</sup>, and Yuliana Rakhmawati<sup>1</sup>

<sup>1</sup> Universitas Trunojoyo Madura, Madura, Indonesia

\* Corresponding author's email: [nikmahsuryandari@trunojoyo.ac.id](mailto:nikmahsuryandari@trunojoyo.ac.id)

## Abstract

Cross-cultural communication is a complex and dynamic process shaped by psychological factors and individual competencies. This paper examines cross-cultural communication effectiveness by extending Anxiety–Uncertainty Management (AUM) Theory and integrating empirical findings on the relationships among anxiety, uncertainty, cultural intelligence (CQ), communication effectiveness, and knowledge-sharing behaviour. Anxiety and uncertainty are conceptualized as psychological barriers that reduce individuals' ability to predict others' behaviour, regulate emotions, and maintain psychological stability during intercultural interactions. Drawing on prior studies, this paper argues that communication effectiveness functions as a mediating mechanism that links anxiety and uncertainty to knowledge-sharing behaviour in multicultural contexts. Effective communication enhances accuracy in message transmission and interpretation, thereby fostering trust and collaborative learning. Furthermore, this paper highlights CQ as a critical moderating variable that weakens the negative effects of anxiety and uncertainty on communication effectiveness. Individuals with high CQ demonstrate superior metacognitive awareness, cultural knowledge, intrinsic motivation, and behavioural flexibility, enabling them to navigate ambiguity and complexity in intercultural encounters. Consequently, CQ not only improves communication effectiveness but also strengthens knowledge-sharing behaviour, which is essential for innovation, team performance, and organizational sustainability in multicultural environments. This conceptual paper contributes to intercultural communication scholarship by proposing an integrative framework that links AUM Theory, CQ, and knowledge sharing, and offers practical implications for intercultural training and organizational development.

## Keywords

Cross-cultural communication, Cultural intelligence, Communication effectiveness, Anxiety–uncertainty management, Knowledge sharing

**Published:**  
May 04, 2026

This work is licensed  
under a [Creative  
Commons Attribution-  
NonCommercial 4.0  
International License](#)

Selection and Peer-  
review under the  
responsibility of the 7<sup>th</sup>  
BIS-HSS 2025 Committee

## Introduction

The twenty-first century has witnessed a significant escalation in the frequency and profundity of cross-cultural encounters due to globalization, technological advancements, international mobility, and migration. These contacts transpire not just in professional and educational settings but increasingly via virtual platforms and international digital networks, presenting both opportunities and obstacles for intercultural engagement. Intercultural communication currently influences partnerships in multinational teams, international education initiatives, refugee resettlement procedures, and transnational digital communities.

Notwithstanding these benefits, prevailing global circumstances indicate enduring problems that hinder intercultural communication. Research published in the *International Journal of Intercultural Relations* indicates that anxiety and uncertainty impede the effectiveness of intercultural communication, hence adversely impacting knowledge exchange and collaboration across culturally varied teams. The study revealed that anxiety and uncertainty diminish the ability to predict others' behaviour and hinder effective message interpretation, whereas cultural intelligence (CQ) tempered and mitigated these adverse impacts, hence improving communication results [1].

Recent empirical research underscores the importance of cultural intelligence as an important personal competency in managing intercultural complexity. Systematic evaluation shows that cultural intelligence improves bridging knowledge gaps and promotes behavioral efficacy in culturally distinct encounters, underscoring its continued significance in global communication research. According to David, Rajasekhar Nigoti, Utkarsh Singh, Sharda various reputable international journals have consistently disseminated evidence showing that communication competence and cultural sensitivity improve employee engagement and performance in virtual and multinational teams, especially in a post-pandemic work environment [2].

In the context of higher education, international students face anxiety and uncertainty when adapting to a host culture with symbolic systems and unfamiliar social norms. Cases from Asia and Europe show that students who lack intercultural competence can experience stress and communication barriers that reduce academic engagement and social integration. This phenomenon is in line with the basic Anxiety-Uncertainty Management (AUM) Theory, which posits that effective communication depends on regulating anxiety and uncertainty within optimal thresholds.

Beyond educational and organizational settings, intercultural communication challenges also arise in broader social processes such as international business and migration. For example, intercultural communication deficits can hinder negotiation, labor integration, and community participation in multicultural cities across Europe and North America. Recent research on B2B negotiation highlights that cultural intelligence

enhances negotiators' ability to adapt and build trust in a diverse commercial environment, resulting in more effective outcomes [3].

These contemporary global cases illustrate the limitations of communication frameworks that focus only on language proficiency or cognitive cultural knowledge. Instead, they highlight the central role of psychological regulation (anxiety and uncertainty management) and cultural competencies such as CQ in enabling effective intercultural communication. When individuals fail to regulate psychological responses to ambiguity in intercultural interactions, communication disruptions, misunderstandings, and reduced knowledge exchange are more likely. In contrast, high CQ-which consists of metacognitive awareness, cultural knowledge, intrinsic motivation, and behavioral flexibility enables individuals to anticipate cultural differences, adjust communication strategies, and engage in effective cross-cultural collaboration [1].

By placing cross-cultural communication in the realities of global workplace diversity, international education, and transnational negotiations, this paper illustrates the urgency to advance a theoretical framework that takes into account not only psychological factors but also cultural intelligence as essential competencies to drive the effectiveness of intercultural communication and sustainable knowledge sharing. Based on these considerations, this paper aims to develop an integrative conceptual framework that connects AUM Theory, CQ, the effectiveness of cross-cultural communication, and knowledge sharing behavior. By synthesizing relevant literature, this paper contributes to theoretical development and provides practical insights for intercultural communication training.

## Method

This paper adopts a conceptual research design, which is suitable for developing theoretical frameworks and expanding existing theories without the collection of new empirical data. Conceptual research synthesizes existing literature, identifies patterns, and builds theoretical models to explain the relationship between core constructs such as anxiety, uncertainty, cultural intelligence (CQ), communication effectiveness, and knowledge sharing. The conceptual approach is well-suited to the social science domain where refinement and theoretical integration guide future empirical investigations. Conceptual research does not collect new empirical data but relies on rigorous literature synthesis to generate validated propositions and frameworks. The conceptual framework serves as an organizing tool and mental map, guiding research and clarifying the relationships between constructions in social science research [4].

The literature review process involves a systematic search of peer-reviewed journals indexed on Scopus and other reputable databases such as, ScienceDirect, Taylor & Francis, Routledge focusing on studies published from 2010 to 2025. Key search terms include: cross-cultural communication effectiveness, cultural intelligence, Anxiety-Uncertainty Management Theory, knowledge sharing, intercultural communication

competence, and psychological adaptation in intercultural settings. This approach ensures the inclusion of theoretical advances and empirical evidence relevant to the conceptual model of the research, in particular contributions that link psychological factors, cultural competence, and communication outcomes [1].

This paper follows a deductive approach in the construction of conceptual frameworks, starting with an established theory and progressively establishing logical relationships between constructions:

The theoretical model is based on the Anxiety-Uncertainty Management (AUM) Theory [5], which conceptualizes anxiety and uncertainty as the main psychological variables that affect the outcome of intercultural interactions. CQ theory with metacognitive, cognitive, motivational, and behavioral CQ dimensions informs the role of moderators in managing psychological challenges and improving communication competence [1].

Through a critical synthesis of empirical and theoretical studies, causal relationships between constructs are identified. The effectiveness of communication is positioned as a mediating mechanism between psychological variables (anxiety and uncertainty) and behavioral outcomes (knowledge sharing). CQ is positioned as a moderator that mitigates the negative impact of anxiety and uncertainty on communication effectiveness based on evidence from intercultural research.

From the integration of the literature, this proposition provides a testable relationship for future empirical research and follows standard practice in conceptual social science research, where theoretical construction precedes measurement and hypothesis testing. Conceptual frameworks typically describe cause-and-effect relationships and identify variables and their interconnections [6].

The conceptual methodology is justified because: It allows the synthesis of diverse literature into a coherent model that advances theory at the intersection of intercultural communication and relatively backward psychological management. It supports the identification of theoretical gaps and suggests directions for subsequent empirical testing through quantitative or mixed methods. Conceptual research is widely accepted in the social sciences to advance theoretical understanding before extensive measurements and surveys are designed and validated. This approach is in line with research practice in communication studies and interdisciplinary fields where complex constructions are often first explored conceptually before being operationalized in empirical investigations [4].

## Results

The AUM theory, developed by Gudykunst describes how individuals manage anxiety and uncertainty in intercultural interactions. Anxiety refers to emotional responses such as fear or tension, while uncertainty involves cognitive limitations in predicting the attitudes and behaviors of others [7][8]. According to the AUM Theory, effective communication occurs when anxiety and uncertainty are maintained at a manageable

level. Empirical studies have shown that high levels of anxiety and uncertainty negatively impact intercultural communication competence, relational satisfaction, and adaptation outcomes. Individuals who experience excessive anxiety tend to avoid interactions, rely on stereotypes, and misinterpret messages.

The effectiveness of cross-cultural communication refers to the extent to which individuals achieve intended meaning, mutual understanding, and relational goals in intercultural interactions. Effectiveness involves accuracy, appropriateness, and adaptability in communication behavior. Previous studies have shown that communication effectiveness mediates the relationship between psychological factors and behavioral outcomes, including cooperation and knowledge sharing.

Cultural intelligence is a multidimensional construct consisting of metacognitive, cognitive, motivational, and behavioral dimensions [9]. Metacognitive CQ involves awareness of and control over cultural assumptions; Cognitive CQ refers to knowledge of cultural systems; CQ motivation reflects interest and confidence in intercultural interactions; and behavioral CQ demonstrate the ability to exhibit appropriate verbal and nonverbal behaviors.

Research has consistently shown that CQ positively influences intercultural adjustments, communication competence, and work performance. Importantly, CQ helps individuals manage anxiety and uncertainty by increasing confidence and interpretation accuracy in ambiguous situations. Based on the reviewed literature, this paper proposes an integrative framework in which anxiety and uncertainty negatively impact the effectiveness of cross-cultural communication. Communication effectiveness, in turn, mediates the relationship between anxiety-uncertainty and knowledge-sharing behavior. Cultural intelligence is proposed as a moderation variable that attenuates the negative effects of anxiety and uncertainty on communication effectiveness. Proposition 1: Anxiety and uncertainty have a negative effect on the effectiveness of cross-cultural communication. Proposition 2: The effectiveness of cross-cultural communication positively influences knowledge sharing behavior. Proposition 3: The effectiveness of cross-cultural communication mediates the relationship between anxiety-uncertainty and knowledge-sharing behavior. Proposition 4: Cultural intelligence moderates the relationship between anxiety-uncertainty and communication effectiveness, so the negative effects are weaker for individuals with high CQ.

## Discussion

The proposed framework expands the AUM Theory by including CQ as the primary individual competency that shapes the outcomes of intercultural communication. While the AUM Theory emphasizes psychological management, the integration of CQ highlights the role of skills, motivation, and behavioral flexibility in reducing anxiety and uncertainty. The framework also underscores the importance of communication effectiveness as a mechanism that links psychological factors to knowledge-sharing

behaviors. In multicultural organizations and academic environments, effective communication allows individuals to transform diverse perspectives into shared knowledge.

The academic world is increasingly recognizing CQ as a dynamic ability that enables individuals to navigate complexities and ambiguities in diverse cultural environments. Cultural intelligence consists of metacognitive, cognitive, motivational, and behavioral dimensions, which collectively enhance the individual's ability to accurately interpret cultural cues and adjust communicative behaviors accordingly. Recent empirical studies confirm that CQ is positively correlated with communication effectiveness and collaboration outcomes in multicultural teams (e.g., Presbitero & Attar, 2018). In their moderated mediation model, CQ mitigates the negative effects of anxiety and uncertainty on the effectiveness of intercultural communication, thus facilitating stronger knowledge sharing among culturally diverse employees [1].

Research in educational contexts shows that higher levels of cultural intelligence significantly improve cross-cultural communication skills, which in turn contributes to multicultural literacy and broader intercultural understanding among students. The findings show that CQ not only equips individuals with cultural knowledge but also shapes the enactment of effective communication behaviors in real-world intercultural settings [10].

Anxiety and uncertainty have long been theorized to disrupt intercultural interactions by causing cognitive overload, emotional discomfort, and defensive behavior, which inhibits information exchange and cooperation. This model builds on the AUM Theory by showing how the effectiveness of communication mediates these psychological effects, making it a central mechanism that links affective responses to behavioral outcomes. For example, individuals overwhelmed by uncertainty are less likely to seek clarification or engage in open dialogue, which directly undermines opportunities for knowledge sharing within multicultural teams [1].

Introducing CQ as a moderator is in line with recent findings showing that culturally intelligent individuals are better equipped to regulate anxiety and reinterpret ambiguous intercultural cues positively. This is consistent with research showing that CQ training improves communication and teamwork effectiveness among culturally diverse workers, such as foreign workers in Malaysia's manufacturing industry, where CQ interventions significantly improve communication performance and collaborative outcomes [11].

Knowledge sharing is increasingly seen as a strategic capability that influences innovation, adaptability, and sustainable performance in global organizations. The meta-analytical literature reveals that CQ not only enhances interpersonal behavior but also systematically facilitates knowledge transfer across cultural boundaries, leading to higher levels of team performance and innovation behavior. For example, studies in organizational and healthcare settings show that CQ mediates positive relationships

between competencies and employee outcomes such as resilience and innovative work behaviors, highlighting that CQ plays an important role in transforming cultural diversity into productive knowledge exchange [12].

In addition, an inclusive environment that combines high CQ with an organizational support system promotes psychological safety and trust, which is critical to encouraging open information sharing across diverse teams. Such ecosystem-level insights reflect a shift in intercultural communication research from individual skills to interactions between personal competencies and structural supports that collectively influence knowledge sharing and collaborative innovation [13].

This discussion underscores that the effectiveness of cross-cultural communication should not be conceptualized solely as a function of linguistic proficiency or superficial cultural knowledge but as a multi-layered set of competencies that interact with psychological regulation and context-specific demands. The model proposed in this paper contributes to the theory by articulating how CQ buffers psychological barriers, thereby promoting the quality of communication and knowledge sharing across cultural contexts. Practically, these insights inform intercultural training programs, organizational diversity strategies, and curriculum design in international education. For example, improving CQ through structured training, reflective exercises, and cross-cultural exposure can help individuals manage anxiety and uncertainty more effectively, leading to improved communication outcomes and collaborative behaviors. Therefore, organizations and educators should invest in interventions that nurture cognitive understanding and emotion regulation strategies relevant to intercultural engagement

This paper contributes to the theory of intercultural communication by integrating AUM Theory with cultural intelligence and knowledge-sharing literature. It offers a more comprehensive explanation of how psychological and competency-based factors together affect intercultural outcomes. In practical terms, the findings suggest that intercultural training programs should focus not only on cultural knowledge but also on the development of CQ dimensions, emotional regulation, and communication skills. Such programs can improve communication effectiveness and promote knowledge sharing within multicultural teams.

## Conclusion

The effectiveness of cross-cultural communication is shaped by the dynamic interaction between psychological factors and individual competencies. Anxiety and uncertainty pose significant challenges to intercultural interactions, but their negative effects can be mitigated through effective communication and high cultural intelligence. By integrating AUM Theory, CQ, and knowledge sharing behavior, this paper provides a conceptual foundation for future empirical research and practical interventions in multicultural contexts.

## Acknowledgement

The authors would like to express their sincere gratitude to the Institute for Research and Community Service (LPPM), Universitas Trunojoyo Madura, and the Ministry of Higher Education, Science, and Technology of the Republic of Indonesia (Kementerian Pendidikan Tinggi, Sains, dan Teknologi) for their financial support of this research. This study was funded under Grant No: 120/C3/DT.05.00/PL/2025 and B/018/UN46.4.1/PT.01.03/BIMA/PL2025. The support provided was instrumental in the completion of this research and the preparation of this manuscript.

## References

1. A. Presbitero and H. Attar, "International Journal of Intercultural Relations Intercultural communication effectiveness , cultural intelligence and knowledge sharing : Extending anxiety-uncertainty management theory," vol. 67, no. January, pp. 35–43, 2018.
2. R. David, U. Nigoti, and S. Singh, "Does intercultural communication competence, cultural sensitivity, and temporal flexibility related to employee engagement? Moderation of negative emotions with COVID-19," *Int. J. Intercult. Relations*, vol. 105, p. 102098, 2025, doi: <https://doi.org/10.1016/j.ijintrel.2024.102098>.
3. S. Skhiri, I. Zaiem, and A. E. E. Sobaih, "Cultural Intelligence in International B2B Negotiations : An Exploratory Study on the Role of Intercultural Competencies," vol. 25, no. 3, pp. 36–48, 2025.
4. G. van der Waladt, "THE JOURNAL FOR RESEARCH IN SOUTHERN," vol. 16, no. 1, 2020.
5. W. B. Gudykunst, *Theorizing about intercultural communication*. Sage, 2005.
6. J. Kulesa, S. Induru, E. Hubbard, and P. Bhansali, "The Conceptual Framework : A Practical Guide," vol. 14, no. 11, pp. 503–508, 2024.
7. W. B. Gudykunst and Y. Y. Kim, *Communicating with Strangers: An Approach to Intercultural Communication*. in McGraw-Hill higher education. McGraw-Hill, 2003. [Online]. Available: <https://books.google.co.id/books?id=p-yzQgAACAAJ>
8. W. B. Gudykunst, *Cross-Cultural and Intercultural Communication*. SAGE Publications, 2003. [Online]. Available: <https://books.google.co.id/books?id=-5sjpr1ypmC>
9. P. C. Earley and S. Ang, *Cultural Intelligence: Individual Interactions Across Cultures*. in Stanford business books. Stanford University Press, 2003. [Online]. Available: <https://books.google.co.id/books?id=goPSkiOT8ggC>
10. L. Haikuo, "Exploring the impact of cultural intelligence on multicultural literacy in university students : a serial mediation model of cultural exposure and cross-cultural communication skills," no. September, pp. 1–15, 2025, doi: 10.3389/fpsyg.2025.1661899.
11. T. Islam, I. A. Jumbri, A. Feisal, M. Feisal, and K. A. Bakar, "Enhancing Teamwork and Communication Efficiency through Cultural Intelligence Training among Foreign Workers in Malaysia ' s Manufacturing Industry," vol. IX, no. 2454, 2025, doi: 10.47772/IJRISS.
12. N. Hassan, A. Awad, B. K. M. El-sayed, H. Mohamed, and A. A. Ashour, "Unlocking innovation and resilience among emergency nurses through cultural intelligence: insights from a structural equation model," 2025.
13. Y. Mao and V. Aumeboonsuke, "Effect of Cultural Intelligence on Employee Performance in Cross-Cultural Teams Within Multinational Chinese Companies : The Role of Employees ' Perception of Inclusiveness , Knowledge Sharing , and Employee Innovative Behavior," vol. 10, no. 3, 2025.