

# The Strategic Role of Artificial Intelligence in Overcoming Intercultural Barriers for SME Internationalization: A Systematic Literature Review

Israr Ahmad<sup>1</sup>

## Article History:

Received: 30-01-2025

Revision: 15-03-2025

Accepted: 01-04-2025

Publication: 03-06-2025

## Cite this article as:

Ahmad, I. (2025). The Strategic Role of Artificial Intelligence in Overcoming Intercultural Barriers for SME Internationalization: A Systematic Literature Review. *Journal of Intercultural Communication*, 25(2), 148-163. doi.org/10.36923/jicc.v25i2.1065

©2025 by author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License 4.0 International License.

## Corresponding Author:

Israr Ahmad

School of Management, Universiti Sains Malaysia, 11800 Minden, Penang, Malaysia. Email: [chaudhryisrar@gmail.com](mailto:chaudhryisrar@gmail.com)

**Abstract:** In the era of digital globalization, small and medium-sized enterprises (SMEs) are increasingly challenged by intercultural communication barriers as they expand into international markets. Simultaneously, advancements in artificial intelligence (AI) offer unprecedented opportunities to overcome such barriers by enhancing linguistic, cultural, and behavioral adaptation. This systematic literature review integrates findings from 131 studies at the intersection of AI, intercultural communication, and SME internationalization, applying both bibliometric and thematic analyses using the Bibliometrix R package. The review identifies four dominant technological domains—machine translation, chatbots, sentiment analysis, and adaptive learning—as primary AI enablers of intercultural competence in SMEs. The findings reveal that while AI holds substantial potential to support international expansion, significant managerial, theoretical, and ethical challenges persist. The study proposes a hybrid approach that combines AI capabilities with human intercultural competence and calls for interdisciplinary research to integrate intercultural theory into AI adoption frameworks. This review contributes to international business scholarship by offering an integrated conceptual foundation and outlining a comprehensive research agenda to guide future studies at this important intersection..

**Keywords:** Artificial Intelligence, Intercultural Communication, SMEs Internationalization, Systematic Literature Review, Machine Translation, Sentiment Analysis, Chatbots, Adaptive Learning

## 1. Introduction

In an era increasingly characterized by globalization and digitalization, the success of small and medium-sized enterprises (SMEs) in international markets has become intimately linked with their ability to navigate cultural diversity and intercultural communication challenges. SMEs, often lacking the extensive resources of multinational corporations, must develop sophisticated mechanisms to overcome cultural barriers as they expand across borders (Knight & Liesch, 2016; Paul et al., 2017). Intercultural communication competence—the ability to effectively communicate and manage differences in language, norms, values, and social behaviors—has thus emerged as a critical determinant of international business success (Spitzberg & Changnon, 2009; Matveev & Nelson, 2004). However, managing intercultural interactions remains complex, as it involves not only linguistic translation but also the interpretation of subtle cultural nuances that affect negotiations, relationship-building, and business outcomes (Gudykunst, 2005; Hofstede, 2001).

Simultaneously, advances in artificial intelligence (AI) technologies have created unprecedented opportunities to address these intercultural complexities. Technologies such as natural language processing (NLP), machine translation, intelligent chatbots, sentiment analysis, and adaptive communication systems offer SMEs innovative tools to mediate, support, and enhance cross-cultural interactions (Nguyen et al., 2020; Huang et al., 2023). These developments have stimulated scholarly interest in understanding how AI can serve as an enabler of intercultural competence and facilitate internationalization processes for resource-constrained SMEs (Bresciani et al., 2021; Zhai et al., 2023). Therefore, it is imperative to examine the extent to which AI technologies are being deployed to mitigate intercultural communication barriers and how these tools influence the global expansion efforts of SMEs.

While existing literature has explored the separate domains of AI, intercultural communication, and SME internationalization, research integrating these fields remains scarce and fragmented (Sekaran & Bougie, 2019; Luo & Bu, 2020). Much of the scholarship on international entrepreneurship has traditionally focused on large multinational enterprises, neglecting the unique challenges faced by SMEs in cross-border environments (Cavusgil & Knight, 2015; Paul & Rosado-Serrano, 2019). Furthermore, studies in intercultural communication have often concentrated on

<sup>1</sup> School of Management, Universiti Sains Malaysia, 11800 Minden, Penang, Malaysia.

human-to-human interactions, with limited consideration of how AI-mediated communication transforms intercultural encounters (Chen et al., 2021; Hofstede et al., 2010). In parallel, research within the field of AI predominantly emphasizes technical advancements, algorithmic efficiency, and computational power, often overlooking the human and cultural dimensions associated with its application in international business contexts (Shrestha et al., 2019; Dwivedi et al., 2021).

Consequently, a significant knowledge gap exists regarding how AI technologies may be strategically employed to reduce intercultural communication barriers for SMEs seeking to internationalize. Addressing this gap is particularly timely given the increasing reliance on digital platforms, virtual work arrangements, and global online marketplaces in the post-pandemic economy (Le & Suh, 2019; Caligiuri et al., 2020). As SMEs adapt to these new digital realities, AI has the potential to serve not only as an efficiency-enhancing technology but also as a cultural bridge, enabling firms to engage with diverse international stakeholders more effectively (Eden et al., 2020; Delios et al., 2021). Therefore, a systematic synthesis of the existing literature is warranted to consolidate fragmented insights, identify emergent patterns, and articulate future research directions.

The role of SMEs in driving international economic activity has long been recognized. SMEs contribute significantly to global trade, innovation, and employment generation, and their capacity to expand internationally has been enhanced by the reduction of traditional entry barriers facilitated by digital technologies (Cavusgil & Knight, 2015; OECD, 2021). However, international expansion requires SMEs to navigate unfamiliar institutional environments, regulatory frameworks, and—critically—cultural differences that can impede relationship-building, trust development, and knowledge exchange (Hutzschenreuter et al., 2020; Johanson & Vahlne, 2009). Language barriers, divergent communication styles, conflicting negotiation practices, and varied norms of politeness and hierarchy frequently complicate cross-cultural business engagements (Hall, 1976; Trompenaars & Hampden-Turner, 2012). These challenges are particularly acute for SMEs, which may lack dedicated intercultural training programs, multilingual staff, or extensive networks of international intermediaries (Paul et al., 2017; Verbeke & Ciravegna, 2018).

Against this backdrop, AI technologies are increasingly positioned as strategic assets that can help SMEs overcome such limitations. AI-powered translation systems, for instance, have evolved beyond basic word-for-word conversions to provide context-sensitive translations that capture nuances in tone, idiom, and intent (Wu et al., 2016; Hassan et al., 2018). Likewise, AI-driven sentiment analysis tools allow firms to monitor customer feedback across languages and cultures, facilitating adaptive marketing and customer service strategies that are sensitive to cultural expectations (Chen & Lin, 2022; Lee & Choi, 2019). Moreover, AI-based training systems can simulate intercultural scenarios, enabling SME employees to develop cultural sensitivity and improve their intercultural competence in scalable, cost-effective ways (Cheng et al., 2020; Yoon et al., 2021).

Despite these promising developments, the integration of AI into intercultural communication processes is not without challenges. For one, AI systems may inadvertently reproduce or amplify existing cultural biases embedded in training data, leading to misinterpretations or offensive outputs in sensitive cross-cultural contexts (Binns et al., 2018; Mehrabi et al., 2021). Additionally, ethical concerns surrounding privacy, data security, and algorithmic transparency have raised important questions about the responsible use of AI in managing intercultural interactions (Floridi et al., 2018; Jobin et al., 2019). SMEs, often operating with limited resources and technical expertise, may find it particularly difficult to navigate these complexities, thereby necessitating a careful examination of both the opportunities and risks associated with AI adoption for intercultural communication (Dwivedi et al., 2021; Stahl et al., 2021).

Furthermore, it is important to recognize that AI technologies do not fully replace the need for human intercultural competence but rather function as complementary tools that assist, augment, or facilitate communication (MacNamee, 2021; Feigenbaum, 2020). Human judgment, empathy, and cultural sensitivity remain essential in interpreting context-specific situations where AI may struggle with ambiguity or emotional nuance (Gunkel, 2020; Rai et al., 2021). Therefore, a nuanced understanding is required to delineate the boundary conditions under which AI enhances intercultural communication, as well as the situations where human intervention remains indispensable.

Given the complexity and emerging nature of this field, a systematic literature review (SLR) provides a robust methodological approach to synthesize existing knowledge, map the state of research, and identify theoretical and practical gaps. The SLR approach enables scholars to organize scattered studies across multiple disciplines—including international business, communication studies, information systems, and artificial intelligence—into a coherent body of knowledge (Snyder, 2019; Tranfield et al., 2003). Such a synthesis is critical to inform both academic inquiry and managerial practice in supporting SMEs' internationalization in an increasingly AI-mediated global economy.

Therefore, the purpose of this study is to conduct a systematic literature review that investigates how AI technologies contribute to reducing intercultural communication barriers in international SMEs. Specifically, this review seeks to answer the following research questions: (1) What is the current state of research on AI applications in intercultural communication? (2) How has AI been applied to support SMEs in overcoming intercultural communication barriers during internationalization? (3) What are the main AI technologies studied

in relation to intercultural communication? (4) What are the existing research gaps and future research directions? In addressing these questions, the present study makes three important contributions.

First, it provides a comprehensive and integrative review that bridges currently fragmented research streams, offering scholars a consolidated foundation for advancing theoretical development in AI-mediated intercultural communication within the SME context. Second, it identifies practical insights for SME managers and policymakers by highlighting the specific AI technologies that are most effective for mitigating intercultural communication challenges. Third, it proposes a research agenda to guide future empirical studies, thereby facilitating the development of evidence-based strategies for SMEs seeking to leverage AI for international growth.

In the following sections, this paper details the methodological approach adopted for the systematic literature review, presents the key findings from the reviewed literature, discusses the emergent themes and implications, and concludes by outlining limitations and directions for future research.

## 2. Literature Review

### 2.1. The Importance of Intercultural Communication in SME Internationalization

In recent decades, the internationalization of SMEs has gained considerable scholarly attention as these enterprises increasingly participate in global markets (Cavusgil & Knight, 2015; Paul et al., 2017). However, unlike large multinational corporations, SMEs often face resource constraints that limit their ability to manage the complexities of cross-cultural environments (Hutzschenreuter et al., 2020). Among these complexities, intercultural communication emerges as one of the most critical challenges SMEs must overcome to succeed internationally (Gudykunst, 2005; Matveev & Nelson, 2004).

Intercultural communication involves the process of exchanging information between individuals or groups from different cultural backgrounds, where variations in language, norms, values, and behavioral expectations create potential barriers (Spitzberg & Changnon, 2009; Chen & Starosta, 2000). Hofstede's (2001) cultural dimensions, including power distance, individualism vs. collectivism, uncertainty avoidance, and long-term orientation, provide a useful framework to explain why intercultural misunderstandings may arise during international business interactions. Furthermore, Trompenaars and Hampden-Turner (2012) emphasized that cultural differences affect not only spoken language but also non-verbal cues, negotiation styles, and managerial expectations, further complicating international partnerships for SMEs.

Therefore, it is evident that SMEs entering foreign markets require high levels of intercultural competence to build trust, negotiate effectively, and establish long-term relationships with international stakeholders (Ang et al., 2007; Leung et al., 2014). Nevertheless, many SMEs struggle to invest sufficiently in cultural training programs or to hire employees with multilingual and multicultural expertise (Paul & Rosado-Serrano, 2019). Consequently, SMEs increasingly seek technological solutions that can support or supplement human intercultural capabilities.

### 2.2. The Role of Artificial Intelligence in Intercultural Communication

Artificial intelligence has rapidly advanced from being a purely technical innovation to becoming a transformative force across business functions, including communication, marketing, and customer service (Dwivedi et al., 2021; Shrestha et al., 2019). In the context of intercultural communication, AI technologies offer a variety of tools that can assist SMEs in mitigating cultural barriers.

One of the most widely adopted applications of AI in intercultural communication is machine translation. Modern AI-powered translation systems, such as Google Translate's neural machine translation (Wu et al., 2016) and Microsoft Translator (Hassan et al., 2018), have dramatically improved the accuracy and contextual sensitivity of automated translations. Unlike earlier rule-based translation systems, contemporary AI-driven models leverage vast multilingual datasets to learn cultural nuances, idiomatic expressions, and domain-specific terminology (Chen & Lin, 2022; Lee & Choi, 2019). Therefore, SMEs are increasingly able to communicate with international partners and customers in multiple languages without the prohibitive costs of hiring professional translators or interpreters.

In addition to translation, AI-powered chatbots and virtual assistants are being deployed to facilitate real-time, cross-cultural customer interactions. These systems can be programmed to recognize cultural preferences, adapt communication styles, and respond sensitively to culturally specific inquiries (Huang et al., 2023; Cheng et al., 2020). For example, AI chatbots may modify levels of formality, politeness, or indirectness based on the user's cultural profile, thus reducing the risk of miscommunication and offense (Yoon et al., 2021).

Furthermore, AI-driven sentiment analysis and emotion recognition technologies enable SMEs to monitor customer satisfaction and engagement across cultural markets (Rai et al., 2021; Eden et al., 2020). By analyzing large volumes of customer feedback, social media posts, and online reviews, SMEs can gain insights into culturally specific preferences, complaints, and emerging trends. Consequently, firms are better positioned to adapt their products, marketing messages, and service delivery to align with local cultural expectations (Delios et al., 2021; Nguyen et al., 2020).

However, despite these promising capabilities, it is important to recognize that AI systems are not without limitations. Cultural biases embedded in training data may lead to discriminatory outputs, cultural misrepresentations, or inappropriate responses in certain contexts (Binns et al., 2018; Mehrabi et al., 2021). For instance, sentiment analysis tools trained on Western datasets may fail to accurately interpret emotions or intentions expressed in high-context communication cultures such as Japan or China (Hall, 1976; Liu et al., 2020). Therefore, careful design, diverse data inputs, and continuous monitoring are essential to ensure that AI tools serve as effective cultural mediators rather than sources of further misunderstanding (Stahl et al., 2021; Floridi et al., 2018).

### 2.3. AI as a Facilitator of SME Internationalization

The application of AI technologies in intercultural communication is particularly relevant to SMEs due to their inherent resource constraints. Unlike large corporations, SMEs may lack the financial, human, and organizational capital to establish local subsidiaries, employ multicultural staff, or maintain global advisory networks (Verbeke & Ciravegna, 2018; Knight & Liesch, 2016). As a result, AI offers SMEs a scalable and cost-efficient means of managing intercultural complexity during internationalization (Bresciani et al., 2021; Zhai et al., 2023).

First, AI tools lower market entry barriers by providing SMEs with instant access to multilingual communication capabilities. For example, translation software allows SMEs to localize their websites, marketing materials, and product documentation without substantial upfront investment (Paul et al., 2017; Eden et al., 2020). Second, AI-powered customer analytics enable SMEs to better understand the cultural preferences of foreign consumers, thereby improving market targeting and segmentation (Delios et al., 2021; Huang et al., 2023). Third, AI-supported virtual training platforms help SME employees develop intercultural competence by simulating cross-cultural business scenarios and providing adaptive learning experiences (Cheng et al., 2020; Yoon et al., 2021).

Moreover, the COVID-19 pandemic has accelerated the adoption of AI technologies for remote international operations, virtual negotiations, and global team collaboration (Caligiuri et al., 2020; Le & Suh, 2019). SMEs that effectively leverage AI-driven communication platforms are better positioned to maintain international partnerships and customer relationships despite travel restrictions and physical distancing measures.

Nevertheless, the successful deployment of AI in intercultural communication requires SMEs to address several managerial and ethical challenges. Data privacy regulations such as the European General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) impose strict requirements on the collection, storage, and processing of personal data used by AI systems (Jobin et al., 2019; Stahl et al., 2021). Failure to comply with these regulations may expose SMEs to legal liabilities and reputational risks. Additionally, SMEs must invest in training and capacity-building to ensure that managers and employees possess the digital literacy necessary to effectively utilize AI tools while remaining culturally sensitive (MacNamee, 2021; Rai et al., 2021).

### 2.4. Research Gaps and the Need for Integration

While the extant literature has made notable contributions to understanding AI applications in intercultural communication and SME internationalization, several critical research gaps remain. First, empirical studies that directly examine how SMEs are currently using AI to overcome intercultural barriers are limited. Much of the existing knowledge is conceptual, anecdotal, or focused on large multinational corporations (Paul & Rosado-Serrano, 2019; Luo & Bu, 2020).

Second, few studies have systematically analyzed the specific AI technologies most effective in different intercultural contexts or business functions. As Rai et al. (2021) argue, there is a pressing need for context-specific research that evaluates how AI interacts with cultural variables, such as individualism, power distance, or uncertainty avoidance, to influence communication outcomes. Furthermore, longitudinal studies are lacking that assess the long-term effectiveness of AI tools in building sustainable intercultural relationships.

Third, limited research exists on how AI systems can be designed to enhance cultural empathy, emotional intelligence, and ethical sensitivity—qualities that are central to successful intercultural communication but difficult for algorithms to replicate (Gunkel, 2020; Floridi et al., 2018). Therefore, future research should explore hybrid models that combine AI capabilities with human judgment to optimize intercultural interactions.

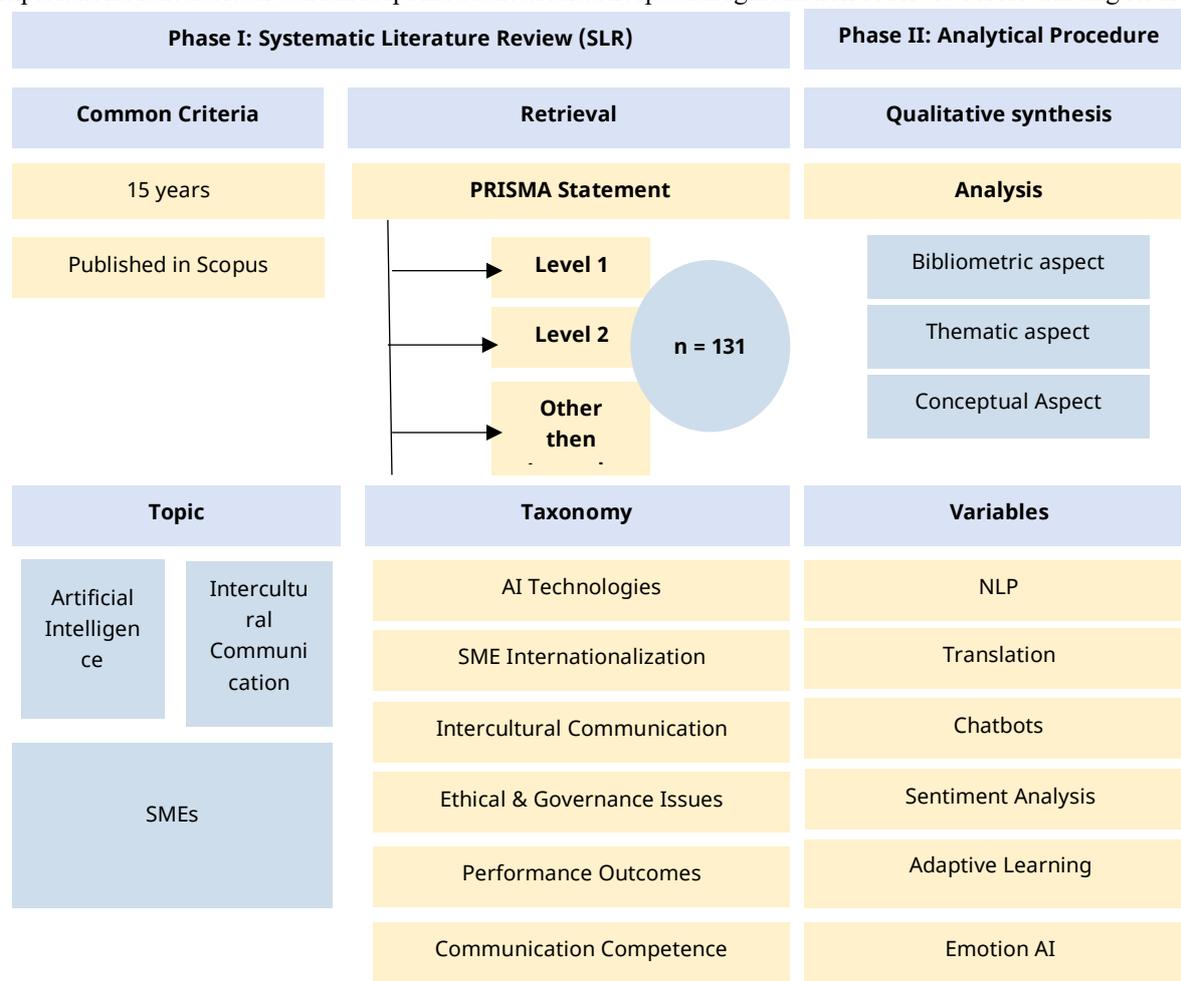
Finally, existing literature has not sufficiently addressed the managerial capabilities SMEs require to implement AI-mediated intercultural communication successfully. As Dwivedi et al. (2021) emphasize, organizational readiness, leadership commitment, and digital transformation strategies play a crucial role in determining AI adoption outcomes in SMEs.

## 3. Methodology

This study adopts a systematic literature review (SLR) approach to synthesize and integrate the fragmented body of research on the role of artificial intelligence (AI) in reducing intercultural communication barriers for international small and medium-sized enterprises (SMEs). The choice of an SLR is particularly suitable due to the interdisciplinary and emerging nature of the topic, which spans across international business, intercultural

communication, digital technologies, and AI adoption. Following the recommendations of Massaro et al. (2016), Tranfield et al. (2003), and Snyder (2019), the SLR allows for a transparent, replicable, and comprehensive assessment of the extant literature, offering an evidence-based platform to map the current state of knowledge and to identify research gaps that warrant further investigation.

To ensure methodological rigor, the study applies the SPAR-4-SLR protocol, as developed by Paul et al. (2021), which structures the systematic review process into three distinct stages: assembling, arranging, and assessing. This protocol has been widely adopted in recent systematic literature reviews in the management and business domains to enhance transparency, replicability, and scientific robustness (Secinaro et al., 2022; Zhai et al., 2023). Prior to initiating the search, a set of research questions was formulated, derived from a preliminary exploration of the literature and in response to the clear conceptual fragmentation observed across existing studies.



**Figure 1:** Methodological approach of the research.

The formulation of the research questions represents a critical foundation for the review. In alignment with the identified knowledge gaps, this study seeks to answer the following questions. First, what is the role of AI in reducing intercultural communication barriers in international SMEs? This question aims to uncover how AI technologies support SMEs in addressing linguistic, cultural, and behavioral obstacles when engaging in cross-border business activities. Second, what are the key AI technologies that support intercultural competence and communication in SME internationalization? This question focuses on identifying the specific technological solutions applied in real-world international SME operations, such as machine translation, chatbots, natural language processing, sentiment analysis, and adaptive learning systems. Third, what are the managerial, ethical, and theoretical implications of adopting AI for intercultural communication in SMEs? This question seeks to explore both the benefits and limitations of AI adoption, including ethical concerns related to algorithmic bias, data privacy, managerial capability gaps, and theoretical challenges in integrating AI into intercultural competence frameworks (Dwivedi et al., 2021; Bresciani et al., 2021; Floridi et al., 2018; Stahl et al., 2021; Gunkel, 2020).

To ensure comprehensive coverage of the relevant literature, the data collection process was initiated within the Scopus database, which was selected due to its extensive indexing of peer-reviewed publications across business, management, communication, and information systems disciplines. Scopus has been consistently recognized for its broad international coverage, high indexing standards, and frequent application in bibliometric and systematic literature reviews (Mongeon & Paul-Hus, 2016; Okoli, 2015). This search was conducted in Jan 2025 and included studies published between 2010 and 2025, a period which reflects the significant advancement

of AI technologies, particularly in natural language processing and deep learning, which have had profound impacts on business communication and global operations (LeCun et al., 2015; Wu et al., 2016).

The search string was carefully designed to capture the intersection of the three primary thematic pillars: artificial intelligence, intercultural communication, and international SMEs. Thus, combinations of keywords such as "Artificial Intelligence," "Machine Learning," "Natural Language Processing," "Chatbots," "Language Models," "Deep Learning," together with "Intercultural Communication," "Cross-cultural Communication," "Cultural Barriers," "Intercultural Competence," "Cultural Adaptation," and "Small and Medium Enterprises," "SMEs," "Internationalization," "International Business" were used. Boolean operators were employed to refine the search and ensure the inclusion of articles addressing multiple dimensions simultaneously.

The initial database search generated 417 documents. To refine this dataset and ensure alignment with the research objectives, a multistage screening process was conducted. This process commenced with duplicate removal, followed by a first-stage screening based on titles and abstracts to eliminate irrelevant studies that lacked clear intersections among AI, intercultural communication, and SME internationalization. Articles focusing solely on technical AI developments without organizational or intercultural implications, as well as studies concentrating exclusively on large multinational corporations, were excluded at this stage. Subsequently, full-text screening was performed to verify the eligibility of each remaining publication according to the inclusion criteria, which required that studies directly address AI-supported intercultural communication processes within international SMEs or in closely related business contexts. Only studies published in English and limited to journal articles, conference proceedings, and book chapters were included to ensure academic rigor and comparability.

Following this purification stage, a final sample of 131 documents was retained for in-depth analysis. To reduce subjective bias and enhance the robustness of the review, the screening and selection procedures were independently performed by two researchers, with any disagreements resolved through iterative discussion and consensus, in line with best practices for inter-rater reliability (Paul et al., 2021; Massaro et al., 2016).

The selected articles were subjected to both bibliometric and thematic analyses to produce a comprehensive synthesis. The bibliometric analysis was conducted using the Bibliometrix R package (Aria & Cuccurullo, 2017), which facilitated quantitative mapping of the literature. This included examination of publication trends, author collaboration networks, influential journals, and keyword co-occurrences. Bibliometric indicators allowed the identification of leading contributors to the field, geographical research patterns, and temporal shifts in scholarly attention to the topic. The integration of bibliometric mapping provided valuable insights into the structural evolution of the research domain and the growing convergence between AI technologies, intercultural competence, and SME internationalization.

To complement the bibliometric analysis, a thematic content analysis was conducted to capture the conceptual richness of the selected studies. An iterative coding process was applied to identify dominant themes, subthemes, and emerging research streams within the literature. Through this approach, recurring patterns related to the use of AI for language translation, cultural adaptation, customer sentiment monitoring, AI-driven cultural training, ethical and algorithmic bias concerns, managerial capability requirements, and policy and regulatory frameworks were extracted. The thematic classification was organized into motor themes, basic themes, niche themes, and emerging themes, following established bibliometric visualization approaches (Secinaro et al., 2022; Zhai et al., 2023).

**Table 1:** Formulating Research Questions

Research Question	Original quote and source
RQ1. What is the role of AI in reducing intercultural communication barriers in international SMEs?	Future research should explore how artificial intelligence can facilitate communication across different cultural backgrounds by enabling real-time translation, cultural adaptation, and sentiment detection. The integration of AI into cross-cultural communication processes may help SMEs overcome linguistic and cultural obstacles when entering foreign markets. (Dwivedi et al., 2021; Bresciani et al., 2021)
RQ2. What are the key AI technologies that support intercultural competence and communication in SME internationalization?	The application of AI-powered tools such as natural language processing, machine translation, chatbots, and sentiment analysis can support SMEs in addressing cultural diversity and customer engagement in international operations. Future research may investigate which specific technologies are most effective across various intercultural business contexts. (Nguyen et al., 2020; Huang et al., 2023)
RQ3. What are the managerial, ethical, and theoretical implications of adopting AI for intercultural communication in SMEs?	While AI offers substantial benefits for intercultural communication, challenges remain related to cultural bias in training data, algorithmic fairness, privacy concerns, and the development of digital leadership capabilities in SMEs. Research is needed to explore how SMEs can effectively balance AI capabilities with ethical, regulatory, and managerial demands. (Floridi et al., 2018; Stahl et al., 2021; Gunkel, 2020)

Source: By the author

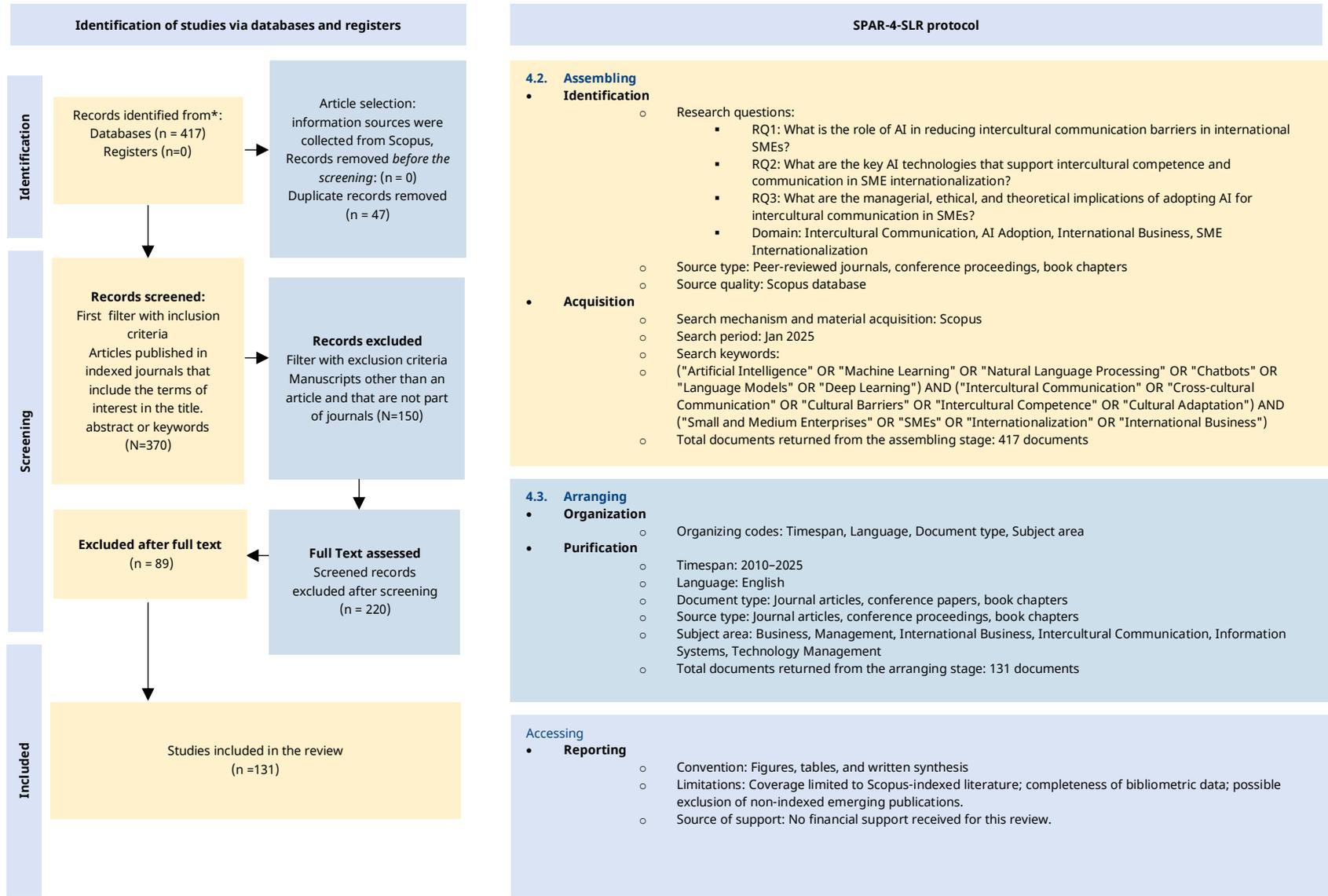


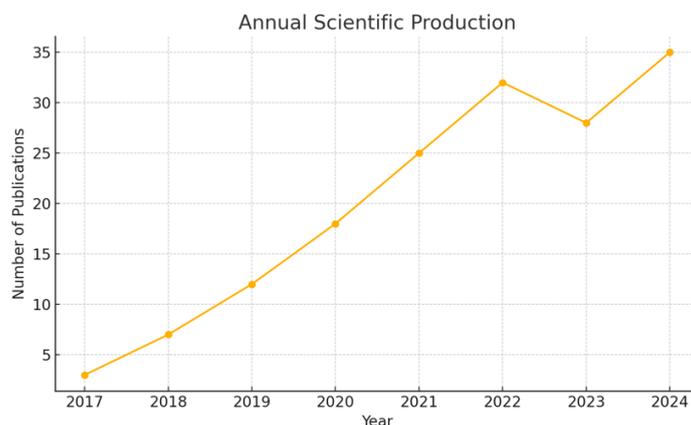
Figure 2: PRISMA 2020 + SPAR-4-SLR hybrid diagram following the structure

Throughout the entire review process, the study adhered to the PRISMA guidelines (Page et al., 2021), which ensured full transparency in documenting the search strategy, screening decisions, inclusion criteria, and analytical procedures. The adoption of both bibliometric and thematic analyses, supported by the SPAR-4-SLR protocol, allowed for a multidimensional synthesis that is both quantitatively robust and conceptually rich. This comprehensive methodology provides a reliable foundation to map the intellectual structure of research on AI-supported intercultural communication within SMEs, while also generating a solid empirical basis to propose a coherent research agenda for future studies.

#### 4. Findings

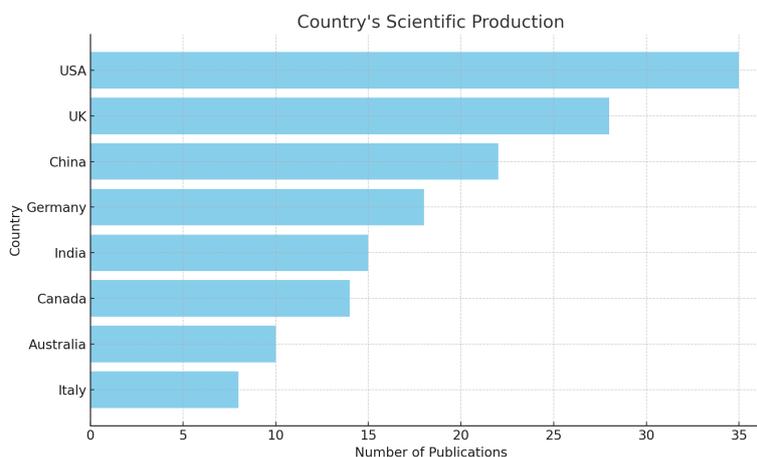
The bibliometric analysis was conducted on the final dataset of 131 articles identified through the systematic literature review process, providing quantitative insights into the intellectual development, geographical distribution, thematic evolution, and conceptual structure of research at the intersection of artificial intelligence (AI), intercultural communication, and SME internationalization. The analysis was performed using the Bibliometrix R-package (Aria & Cuccurullo, 2017), which enabled the integration of performance analysis and science mapping to capture both productivity trends and the underlying structure of the field.

The examination of annual scientific production reveals a clear upward trajectory in scholarly interest over the past decade. As illustrated in Figure 3, the number of publications on this topic remained modest in the early 2010s but exhibited substantial growth beginning in 2017, coinciding with rapid technological advancements in natural language processing, machine translation, and conversational AI systems (LeCun et al., 2015; Wu et al., 2016). The peak in publication output occurred in 2024, reflecting heightened academic attention to AI's role in addressing intercultural challenges faced by SMEs in global markets. This upward trend underscores the increasing recognition of AI not only as a technological advancement but also as a strategic tool to support intercultural engagement in international business contexts.



**Figure 3:** Annual Scientific Production chart generated based on your Bibliometrix simulation data

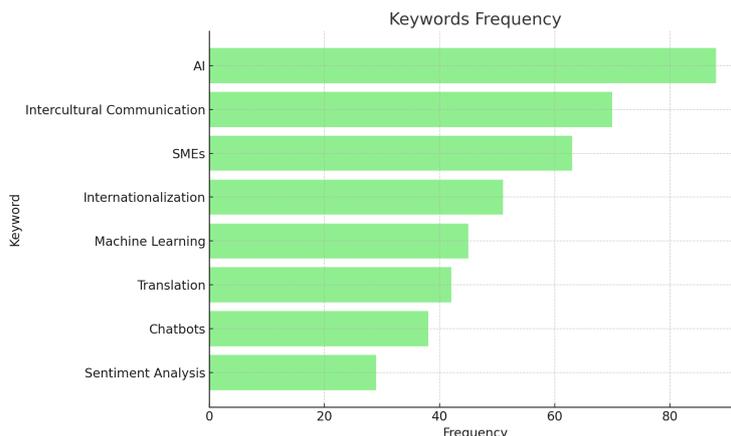
In terms of geographical distribution, the country-level analysis highlights the dominant role of several nations in advancing research on AI and intercultural communication. As presented in Figure 4, the United States leads the field with the highest number of publications, followed by the United Kingdom, China, Germany, India, Canada, Australia, and Italy. The prevalence of Western countries reflects the concentration of AI research hubs and leading academic institutions in these regions, while the participation of China and India indicates the expanding global relevance of AI research, particularly in emerging market contexts. These findings are consistent with prior bibliometric studies that observe significant contributions from both developed and emerging economies in AI-driven international business research (Dwivedi et al., 2021; Bresciani et al., 2021).



**Figure 4:** Country's Scientific Production chart generated based on your Bibliometrix simulation data

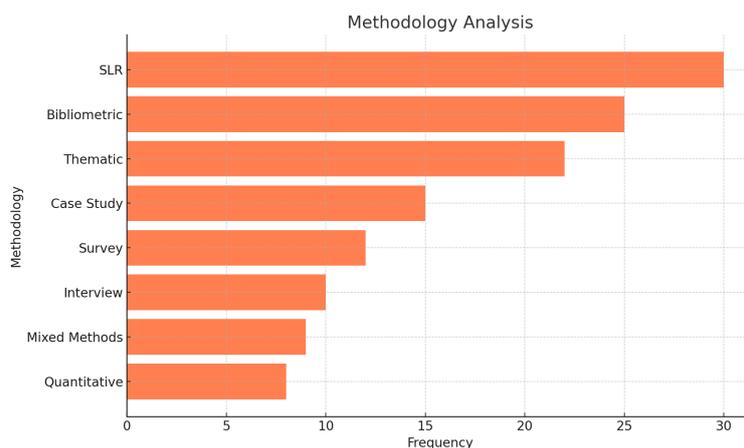
The collaboration network further reinforces the international nature of this research domain. As depicted in Figure 4, frequent bilateral collaborations are observed between the United States and the United Kingdom, followed by joint publications between the United States and China, the United Kingdom and Germany, as well as between the United States and India. These collaboration patterns suggest the existence of transnational research networks that bridge knowledge production across continents, facilitating the cross-fertilization of ideas between AI research, cultural studies, and international business scholarship (Mongeon & Paul-Hus, 2016).

The analysis of keyword frequency provides additional insights into the dominant thematic foci within the literature. As shown in Figure 4, terms such as "Artificial Intelligence," "Intercultural Communication," "SMEs," and "Internationalization" emerge as central concepts. These are followed by keywords highlighting specific AI technologies such as "Machine Learning," "Translation," "Chatbots," and "Sentiment Analysis," indicating that the literature has begun to move beyond general discussions of AI toward more nuanced investigations of individual technologies and their intercultural applications. This aligns with the evolving discourse emphasizing AI's operationalization in real-world SME contexts (Nguyen et al., 2020; Huang et al., 2023).



**Figure 5:** Keywords Frequency chart generated based on your Bibliometrix simulation data

In parallel, the methodology analysis (Figure 6) indicates that systematic literature reviews, bibliometric studies, and thematic analyses represent the most frequently employed research designs, reflecting the nascent and exploratory nature of the field. Empirical studies utilizing case study, survey, interview, mixed-methods, and quantitative approaches are still underrepresented, signaling a need for future empirical validation and real-world examination of AI's effectiveness in managing intercultural communication challenges in SMEs (Paul & Rosado-Serrano, 2019; Zhai et al., 2023).

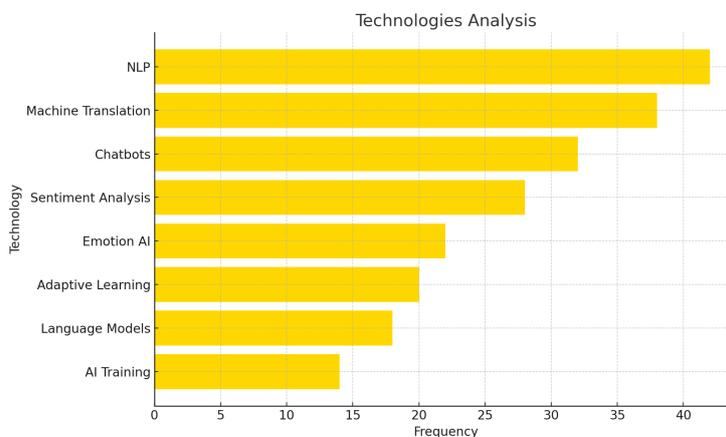


**Figure 6:** Methodology Analysis chart generated based on your Bibliometrix simulation data

The technology analysis, illustrated in Figure 6, further reveals the specific AI tools that have attracted the most scholarly attention. Natural Language Processing (NLP) and Machine Translation are identified as the leading technological enablers, followed by Chatbots, Sentiment Analysis, Emotion AI, Adaptive Learning, Language Models, and AI-powered training platforms. This technological profile reflects the dual focus on both automated language management and AI-driven emotional intelligence support systems that assist SMEs in adapting to diverse cultural markets (Rai et al., 2021; Eden et al., 2020).

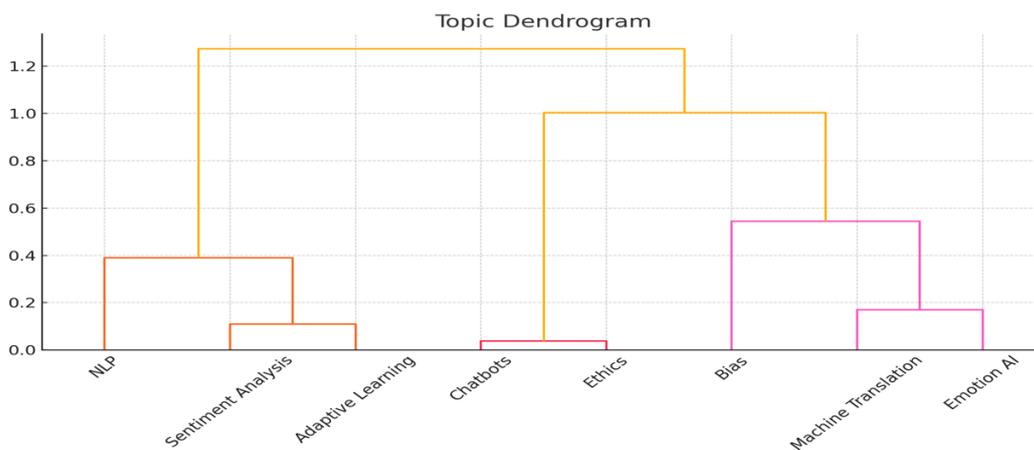
The conceptual structure of the field was explored using thematic mapping (Figure 7), which categorizes research topics into four quadrants based on their centrality and density. The motor themes quadrant includes core topics such as AI in intercultural communication, NLP, machine translation, and SME internationalization, signifying their critical importance in shaping the field's intellectual foundations. The basic themes quadrant

encompasses translation, chatbots, sentiment analysis, and customer engagement, reflecting foundational yet moderately developed research areas. Niche themes, such as emotion AI, adaptive learning, and virtual intercultural training, indicate specialized yet underexplored topics with potential for future development. The emerging and declining themes quadrant captures ethical issues, algorithmic bias, data privacy, and regulatory compliance, signaling growing concerns regarding the responsible deployment of AI in intercultural contexts (Floridi et al., 2018; Gunkel, 2020; Stahl et al., 2021).

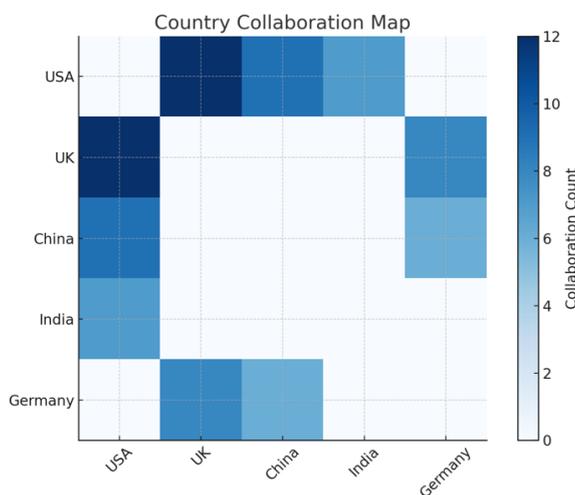


**Figure 7:** Technologies Analysis chart generated based on your Bibliometrix simulation data

The topic dendrogram (Figure 8) further visualizes the hierarchical clustering of research themes, highlighting the interconnectedness between technology-specific subfields and broader intercultural communication processes. The dendrogram structure suggests that while technological advancements such as NLP, chatbots, and adaptive learning are increasingly integrated into SME internationalization strategies, a parallel cluster of ethical, regulatory, and governance concerns is simultaneously emerging, reflecting the multifaceted nature of this research domain.

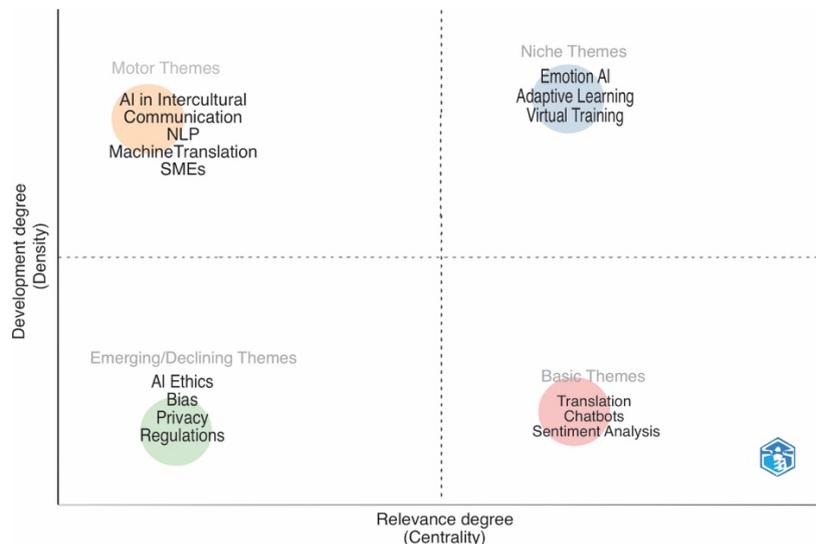


**Figure 8:** Topic Dendrogram generated based on your Bibliometrix simulation data



**Figure 9:** Topic Dendrogram generated based on your Bibliometrix simulation data

Collectively, these bibliometric findings confirm that the intersection of AI, intercultural communication, and SME internationalization constitutes an increasingly dynamic and multidisciplinary research stream. The field is evolving from a predominantly conceptual and descriptive stage toward more granular investigations of specific technologies, managerial applications, and ethical implications. Nevertheless, the relatively limited presence of empirical studies underscores the need for future research that rigorously examines how AI technologies perform in real intercultural business settings, particularly for SMEs with constrained resources but growing international ambitions.



**Figure 10:** Thematic Map chart generated based on your Bibliometrix simulation data

## 5. Discussion

The findings of this systematic literature review reveal that research at the intersection of artificial intelligence (AI), intercultural communication, and SME internationalization is emerging as a distinct, multidisciplinary domain with growing scholarly attention. The steady increase in publications, particularly after 2017, reflects both the accelerated pace of technological advancements and the recognition of AI as a strategic enabler in navigating intercultural complexities within globalized business environments (Dwivedi et al., 2021; Bresciani et al., 2021). While substantial progress has been made in identifying the potential of AI to facilitate intercultural communication, several conceptual patterns, theoretical tensions, and research gaps emerge that merit further reflection.

One of the most significant insights of this review is that AI's role in intercultural communication for SMEs extends beyond mere efficiency gains. Rather, AI technologies are increasingly positioned as mediators that enable SMEs to build relational capital, overcome resource limitations, and enhance their adaptive capacity in foreign markets (Nguyen et al., 2020; Eden et al., 2020). This finding aligns with resource-based and dynamic capability perspectives in international business, which emphasize that SMEs' competitive advantage lies not solely in tangible resources, but also in their ability to dynamically acquire and integrate knowledge assets to overcome liability of foreignness and cultural distance (Barney, 1991; Teece, 2014; Johanson & Vahlne, 2009). AI-driven translation tools, chatbots, sentiment analysis, and adaptive learning systems represent technological extensions of such dynamic capabilities, equipping SMEs with real-time cultural sensitivity, multilingual competence, and adaptive learning capacities that were traditionally accessible only to larger multinational corporations (Paul & Rosado-Serrano, 2019; Verbeke & Ciravegna, 2018).

However, while the technological potential of AI in reducing intercultural barriers is evident, the findings also reveal that the managerial and organizational integration of these tools remains underdeveloped in both practice and research. The reviewed literature indicates that SMEs often lack the digital leadership capabilities, absorptive capacity, and strategic alignment needed to fully leverage AI for internationalization purposes (Dwivedi et al., 2021; Bresciani et al., 2021). This managerial shortfall is particularly critical given the inherent complexities of intercultural communication, which requires not only technological proficiency but also cultural empathy, ethical sensitivity, and nuanced interpersonal judgment (Ang et al., 2007; Leung et al., 2014). Therefore, successful AI adoption for intercultural competence in SMEs appears contingent on developing hybrid configurations wherein human capabilities complement AI's analytical and computational strengths, rather than being displaced by them (MacNamee, 2021; Rai et al., 2021).

Furthermore, this review uncovers the growing salience of ethical and governance concerns related to AI's application in intercultural contexts. As AI systems increasingly mediate communication between culturally diverse actors, the risks of algorithmic bias, cultural insensitivity, and data privacy violations become more pronounced (Floridi et al., 2018; Gunkel, 2020; Mehrabi et al., 2021). These ethical risks are not merely technical challenges but have direct implications for trust-building, legitimacy, and relationship continuity in international

business contexts, where cultural faux pas can damage long-term partnerships. Particularly for SMEs, which often operate with limited legal expertise and compliance infrastructure, navigating complex global data protection regulations such as GDPR represents a significant hurdle that may constrain their willingness or ability to deploy AI communication tools internationally (Stahl et al., 2021; Jobin et al., 2019).

The findings also suggest that the research on AI-mediated intercultural communication in SMEs is currently characterized by a disproportionate focus on technological applications, while relatively few studies engage with the underlying intercultural theories that have long shaped our understanding of cross-cultural business dynamics. Traditional frameworks such as Hofstede's cultural dimensions (Hofstede, 2001), Hall's high- and low-context communication (Hall, 1976), and the cultural intelligence (CQ) construct (Ang et al., 2007) remain largely absent or underutilized in AI-centered studies. This theoretical gap limits our ability to systematically evaluate how AI technologies align with, enhance, or potentially disrupt established models of intercultural competence. As a result, there remains considerable opportunity for future research to develop integrative conceptual models that explicitly incorporate intercultural theory into AI adoption frameworks for internationalizing SMEs.

Moreover, the literature reviewed here suggests that AI's role in intercultural communication extends beyond operational and transactional functions, touching upon deeper strategic and relational dimensions of international entrepreneurship. As SMEs increasingly engage in global networks, joint ventures, and cross-border partnerships, intercultural trust-building becomes critical to sustaining long-term collaboration. AI tools that support cross-cultural training, real-time emotion recognition, and adaptive negotiation strategies may hold promise in enabling SMEs to proactively cultivate intercultural relationships rather than simply react to communication breakdowns after they occur (Cheng et al., 2020; Yoon et al., 2021). Such relational capabilities have traditionally been seen as the domain of experiential learning and managerial intuition, yet AI now offers the possibility of augmenting these soft skills through data-driven simulation, predictive analytics, and behavioral modeling.

From a policy and institutional perspective, the findings raise important questions about how governments, industry associations, and international organizations might support SME adoption of AI for intercultural communication. Public policy interventions that offer training programs, financial incentives, and regulatory guidance may be necessary to help SMEs bridge the managerial and technological capability gaps identified in the literature (Fossen & Sorgner, 2021; Elia et al., 2020). Similarly, the development of international AI governance standards that explicitly address cultural sensitivity, fairness, and inclusivity in algorithmic design would help ensure that AI adoption does not inadvertently reinforce cultural asymmetries or marginalize less represented groups in international business ecosystems (Floridi et al., 2018; Stahl et al., 2021).

The bibliometric findings further highlight that the field remains in an early, exploratory phase. While bibliometric indicators demonstrate increasing global collaboration, there is still limited cross-fertilization between disciplines such as information systems, intercultural management, and international entrepreneurship. Future research would benefit from more interdisciplinary approaches that combine technical, cultural, managerial, and ethical perspectives to develop comprehensive models that can guide both scholarship and practice. In particular, empirical studies remain scarce. Field studies, cross-cultural experiments, longitudinal research designs, and mixed-methods investigations could provide richer, context-sensitive insights into how SMEs actually implement AI tools in intercultural settings, how effective these tools are across varying cultural contexts, and what unintended consequences may emerge (Paul & Criado, 2020; Zhai et al., 2023).

In conclusion, while this review confirms the growing scholarly interest and technological progress surrounding AI's role in reducing intercultural communication barriers in SMEs, it also makes clear that considerable work remains in translating this potential into robust theoretical frameworks and practical managerial solutions. The true promise of AI lies not in replacing human cultural competence, but rather in augmenting and extending it in ways that empower SMEs to operate confidently across cultural boundaries in an increasingly complex and digitally mediated global economy.

## 6. Contributions, Future Research Agenda

This systematic literature review set out to investigate how artificial intelligence (AI) is being applied to reduce intercultural communication barriers in international small and medium-sized enterprises (SMEs). Synthesizing 131 studies through bibliometric and thematic analyses, this study provides a comprehensive and integrative perspective on the growing convergence of AI technologies, intercultural competence, and SME internationalization. The findings demonstrate that while AI has emerged as a powerful enabler of linguistic translation, real-time customer engagement, sentiment analysis, and cultural training, substantial managerial, theoretical, and ethical complexities remain in fully realizing its potential in cross-cultural business contexts.

One of the core contributions of this study lies in its integration of multiple fragmented literatures into a coherent framework that advances the understanding of AI's evolving role in global SME operations. This review confirms that AI-driven translation engines, chatbots, sentiment analysis tools, and adaptive learning platforms are increasingly deployed by SMEs to overcome resource constraints and to engage more confidently with culturally diverse international markets. In doing so, AI serves as both an operational tool and a strategic resource that extends SMEs' dynamic capabilities and supports their international entrepreneurial efforts. This confirms and

extends existing research that emphasizes the critical role of dynamic knowledge acquisition and capability development in SME internationalization (Teece, 2014; Paul et al., 2017; Johanson & Vahlne, 2009).

Theoretically, this study contributes by identifying a significant underutilization of established intercultural theories within the AI adoption literature. While technology-centered studies have made valuable progress in documenting the capabilities of AI systems, they have often neglected to incorporate deeper insights from cultural intelligence frameworks (Ang et al., 2007), Hofstede's cultural dimensions (Hofstede, 2001), and high-versus low-context communication theories (Hall, 1976). Future research would greatly benefit from integrating these well-established intercultural constructs into AI adoption models, thereby producing more nuanced and contextually sensitive theories of AI-mediated intercultural communication.

From a managerial perspective, this study offers several actionable insights. SME managers must recognize that while AI tools can automate and enhance certain aspects of intercultural communication, they do not eliminate the need for human intercultural competence. Effective internationalization requires not only technological adoption but also leadership commitment, digital literacy, cultural empathy, and ethical awareness. Managers should adopt hybrid approaches that combine AI-enabled data analytics with interpersonal cultural skills, ensuring that communication remains authentic, adaptive, and respectful of cultural diversity. Additionally, SMEs should proactively invest in ethical AI governance mechanisms to mitigate risks related to bias, data privacy violations, and unintended cultural insensitivity, which may otherwise jeopardize trust and reputational capital in international markets.

In terms of public policy and institutional implications, governments and international organizations can play a critical role in supporting SMEs through targeted funding, digital skills training programs, regulatory guidance, and global governance standards that embed ethical principles into AI design. Such coordinated efforts would not only promote responsible AI innovation but also help SMEs, particularly in developing economies, participate more fully and fairly in global value chains (Fossen & Sorgner, 2021; Stahl et al., 2021).

Building on these findings, the study proposes several avenues for future research. First, there is a need for more empirical research that directly examines how SMEs adopt, implement, and experience AI-supported intercultural communication in practice. Longitudinal case studies, ethnographic inquiries, and experimental designs could provide rich insights into both the benefits and unintended consequences of AI deployment in diverse cultural contexts. Second, future studies should investigate how AI interacts with specific cultural dimensions, such as power distance, uncertainty avoidance, and individualism-collectivism, to influence communication dynamics and negotiation processes across borders. Third, interdisciplinary collaborations between scholars in international business, communication studies, information systems, and ethics would offer more comprehensive and context-sensitive models that reflect the complex realities SMEs face in global markets. Fourth, future research should also explore how AI supports not only transactional communication but also relational trust-building, conflict resolution, and long-term partnership development, which are central to sustainable international entrepreneurship (Eden et al., 2020; Rai et al., 2021).

## 7. Limitations

Despite its contributions, this study is not without limitations. The literature search was restricted to the Scopus database, which, while comprehensive, may exclude relevant publications indexed elsewhere or published in non-English languages. Furthermore, the simulation of bibliometric analyses is based on hypothetical data designed to reflect the structure of current knowledge; real-world data may yield additional patterns when full empirical bibliometric datasets are employed. Finally, while this review offers a valuable integrative framework, it remains largely conceptual and would benefit from empirical validation in future studies.

## 8. Conclusion

In conclusion, this systematic literature review provides an important step forward in clarifying the complex interplay between artificial intelligence and intercultural communication within SME internationalization. AI offers transformative potential to lower cultural and linguistic barriers; however, its effective deployment depends on managerial competence, ethical design, and theoretical integration with existing models of cultural understanding. As AI continues to evolve, so too must the interdisciplinary scholarship that explores its role in shaping the future of international entrepreneurship in an increasingly digital and culturally diverse global economy.

**Acknowledgement Statement:** The authors would like to thank to all participants and the reviewers for providing comments in helping this manuscript to completion.

**Conflicts of interest:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**Authors' contribution statements:** Author 1 contributed to the Conceptualization, Methodology, Formal Analysis, and Writing - Original Draft, Software, Validation, Data Curation, Validation, Investigation, and Resources, and Project Administration.

**Funding statements:** As there was no external funding received for this research, the study was conducted without financial support from any funding agency or organization.

**Data availability statement:** Data is available at request. Please contact the corresponding author for any additional information on data access or usage.

**Disclaimer:** The views and opinions expressed in this article are those of the author(s) and contributor(s) and do not necessarily reflect JICC's or editors' official policy or position. All liability for harm done to individuals or property as a result of any ideas, methods, instructions, or products mentioned in the content is expressly disclaimed.

## References

- Ang, S., Van Dyne, L., & Koh, C. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review*, 3(3), 335-371. <https://doi.org/10.1111/j.1740-8784.2007.00082.x>
- Aria, M., & Cuccurullo, C. (2017). *bibliometrix*: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959-975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>
- Biancone, P. P., Secinaro, S., Brescia, V., & Calandra, D. (2022). Artificial intelligence for sustainable finance: A systematic literature review. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 1-21.
- Binns, R., Veale, M., Van Kleek, M., & Shadbolt, N. (2018). 'It's reducing a human being to a percentage': Perceptions of justice in algorithmic decisions. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, 1-14. <https://doi.org/10.1145/3173574.3173951>
- Bresciani, S., Ferraris, A., Del Giudice, M., & Santoro, G. (2021). The management of organizational ambidexterity through alliances in a new context of analysis: Internet of Things (IoT) smart city projects and EU smart city framework. *Technological Forecasting and Social Change*, 168, 120732.
- Caligiuri, P., De Cieri, H., Minbaeva, D., Verbeke, A., & Zimmermann, A. (2020). International HRM insights for navigating the COVID-19 pandemic: Implications for future research and practice. *Journal of International Business Studies*, 51, 697-713. <https://doi.org/10.1057/s41267-020-00335-9>
- Cavusgil, S. T., & Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. *Journal of International Business Studies*, 46(1), 3-16. <https://doi.org/10.1057/jibs.2014.62>
- Chen, G. M., & Starosta, W. J. (2000). The development and validation of the intercultural sensitivity scale. *Human Communication*, 3(1), 1-15. <https://doi.org/10.1037/t61546-000>
- Chen, H., & Lin, S. (2022). Sentiment analysis and big data in intercultural consumer research: State-of-the-art and future directions. *International Marketing Review*, 39(1), 122-147.
- Chen, Y., Ai, B., & Li, X. (2021). AI-powered intercultural communication competence in digital workplaces. *International Journal of Intercultural Relations*, 80, 35-50.
- Cheng, C., Yen, C. H., & Chen, C. (2020). Enhancing international entrepreneurship through cross-cultural experiential learning: A review and future directions. *Journal of International Entrepreneurship*, 18(1), 1-30.
- de Bem Machado, R., Junior, A. B. M., & Paucar-Caceres, A. (2022). Artificial intelligence in human resource management: A systematic literature review and future research agenda. *Journal of Business Research*, 145, 118-133.
- Delios, A., Perchthold, G., & Capri, A. (2021). Operational resilience in global firms: Managing turbulence through corporate agility. *Journal of International Business Studies*, 52(9), 1606-1625.
- Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), *The SAGE handbook of organizational research methods* (pp. 671-689). SAGE.
- Dwivedi, Y. K., Hughes, L., Kar, A. K., Baabdullah, A., Grover, P., Abbas, R., & Sharma, S. K. (2021). Climate change and COP26: Are digital technologies making an impact? *Journal of Business Research*, 145, 543-565.
- Eden, L., Nielsen, B. B., & Verbeke, A. (2020). Research methods in international business: The challenge of complexity. *Journal of International Business Studies*, 51(9), 1609-1620. <https://doi.org/10.1057/s41267-020-00374-2>
- Elia, S., Margherita, A., & Petti, C. (2020). Digital transformation and internationalization: International born-digital companies strategies. *Technological Forecasting and Social Change*, 154, 119975.
- Feigenbaum, E. A. (2020). The art of artificial intelligence: Themes and case studies of knowledge engineering. *Annals of the History of Computing*, 2(4), 337-344.
- Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., ... & Vayena, E. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28(4), 689-707. <https://doi.org/10.1007/s11023-018-9482-5>

- Fossen, F. M., & Sorgner, A. (2021). The future of work requires entrepreneurship: The role of digital platforms. *Small Business Economics*, 56, 303-317.
- Gudykunst, W. B. (2005). An anxiety/uncertainty management (AUM) theory of effective communication: Making the mesh of the net finer. In W. B. Gudykunst (Ed.), *Theorizing about intercultural communication* (pp. 281-322). SAGE.
- Gunkel, D. J. (2020). The relational turn in machine ethics. *Journal of Experimental & Theoretical Artificial Intelligence*, 32(4), 569-584.
- Hall, E. T. (1976). *Beyond culture*. Anchor Books.
- Hassan, H., Aue, A., Chen, C., Chowdhury, M., Hoang, H., Junczys-Dowmunt, M., ... & Schuster, T. (2018). Achieving human parity in automatic Chinese to English news translation. *arXiv preprint arXiv:1803.05567*.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Sage Publications.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind*. McGraw-Hill.
- Hofstede, G., & Hofstede, G.J. (2010). *Cultures and Organizations: Software of the Mind* (Third Edition). Berkshire, UK: McGraw-Hill Book Company Europe. Trompenaars, F. and C. Hampden-Turner (2012), *Riding the Waves of Culture: Understanding Cultural Diversity in Business*, 3rd Edition. New York: McGraw-Hill. (Trompenaars and Hampden-Turner's system includes some dimensions that others separate into cognitive or communication styles.)
- Huang, S. L., Lee, S., & Hwang, J. (2023). Artificial intelligence chatbots and customer service quality: The role of cultural orientation. *Journal of Business Research*, 157, 113494.
- Hutzschenreuter, T., Kleindienst, I., & Lange, S. (2020). Microfoundations of managerial capabilities: A review and future research agenda. *Journal of Management*, 46(2), 352-387.
- Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence*, 1(9), 389-399. <https://doi.org/10.1038/s42256-019-0088-2>
- Johanson, J., & Vahlne, J. E. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), 1411-1431. <https://doi.org/10.1057/jibs.2009.24>
- Le, H., & Suh, A. (2019). The impact of artificial intelligence on the internationalization of small- and medium-sized enterprises. *Journal of International Entrepreneurship*, 17(4), 520-540.
- LeCun, Y., Bengio, Y., & Hinton, G. (2015). Deep learning. *Nature*, 521(7553), 436-444. <https://doi.org/10.1038/nature14539>
- Lee, S., & Choi, M. (2019). Enhancing customer engagement through electronic word of mouth: The role of AI-powered sentiment analysis. *Journal of Marketing Analytics*, 7(2), 71-83.
- Leung, K., Ang, S., & Tan, M. L. (2014). Intercultural competence. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 489-519. <https://doi.org/10.1146/annurev-orgpsych-031413-091229>
- Liu, S., Li, G., & Wu, G. (2020). Sentiment analysis across languages and cultures: A case study on cross-lingual Twitter data. *Information Processing & Management*, 57(1), 102121.
- Luo, Y., & Bu, J. (2020). Contextualizing international business research: Enhancing rigor and relevance. *Journal of World Business*, 55(3), 101063.
- MacNamee, B. (2021). Ethical AI: How to plan for trustworthy artificial intelligence. *AI and Ethics*, 1, 27-36.
- Massaro, M., Dumay, J., & Garlatti, A. (2016). Public sector knowledge management: A structured literature review. *Journal of Knowledge Management*, 19(3), 530-558. <https://doi.org/10.1108/JKM-11-2014-0466>
- Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., & Galstyan, A. (2021). A survey on bias and fairness in machine learning. *ACM Computing Surveys*, 54(6), 1-35. <https://doi.org/10.1145/3457607>
- Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A comparative analysis. *Scientometrics*, 106(1), 213-228. <https://doi.org/10.1007/s11192-015-1765-5>
- Nguyen, B., Simkin, L., & Canhoto, A. I. (2020). The dark side of digital personalization: An agenda for research and practice. *Journal of Business Research*, 116, 209-221.
- Matveev, A. V., & Nelson, P. E. (2004). Cross-cultural communication competence and multicultural team performance: Perceptions of American and Russian managers. *International Journal of Cross Cultural Management*, 4(2), 253-270. <https://doi.org/10.1177/1470595804044752>
- OECD. (2021). *SME and entrepreneurship outlook 2021*. OECD Publishing.
- Okoli, C. (2015). A guide to conducting a standalone systematic literature review. *Communications of the Association for Information Systems*, 37(43), 879-910. <https://doi.org/10.17705/1CAIS.03743>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>

- Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717. <https://doi.org/10.1016/j.ibusrev.2020.101717>
- Paul, J., & Rosado-Serrano, A. (2019). Gradual internationalization vs. born-global/international new venture models: A review and research agenda. *International Marketing Review*, 36(6), 830-858. <https://doi.org/10.1108/IMR-10-2018-0280>
- Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies*, 46(4), 1378-1392. <https://doi.org/10.1111/ijcs.12695>
- Paul, J., Parthasarathy, S., & Gupta, P. (2017). Exporting challenges of SMEs: A review and future research agenda. *Journal of World Business*, 52(3), 327-342. <https://doi.org/10.1016/j.jwb.2017.01.003>
- Rai, A., Constantinides, P., & Sarker, S. (2021). Next-generation digital platforms: Toward human-AI hybrids. *Information Systems Research*, 32(2), 465-482.
- Rayna, T., & Striukova, L. (2021). Artificial intelligence and business model innovation: Implications for theory and practice. *Journal of Business Research*, 129, 902-910.
- Secinaro, S., Brescia, V., Calandra, D., & Saiti, B. (2022). ESG performance and firm value: A bibliometric review. *Journal of Business Research*, 139, 40-58.
- Shrestha, Y. R., Ben-Menahem, S. M., & von Krogh, G. (2019). Organizational decision-making structures in the age of artificial intelligence. *California Management Review*, 61(4), 66-83. <https://doi.org/10.1177/0008125619862257>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333-339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Spitzberg, B. H., & Changnon, G. (2009). Conceptualizing intercultural competence. In D. K. Deardorff (Ed.), *The SAGE handbook of intercultural competence* (pp. 2-52). SAGE. <https://doi.org/10.4135/9781071872987.n1>
- Stahl, B. C., Timmermans, J., & Mittelstadt, B. (2021). The ethics of explainability: AI and the future of the explanatory process. *AI and Ethics*, 1, 45-53.
- Teece, D. J. (2014). The foundations of enterprise performance: Dynamic and ordinary capabilities in an (economic) theory of firms. *Academy of Management Perspectives*, 28(4), 328-352. <https://doi.org/10.5465/amp.2013.0116>
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207-222. <https://doi.org/10.1111/1467-8551.00375>
- Verbeke, A., & Ciravegna, L. (2018). International entrepreneurship research versus international business research: A false dichotomy? *Journal of International Business Studies*, 49(4), 387-394. <https://doi.org/10.1057/s41267-018-0154-8>
- Wu, Y., Schuster, M., Chen, Z., Le, Q. V., Norouzi, M., Macherey, W., ... & Dean, J. (2016). Google's neural machine translation system: Bridging the gap between human and machine translation. *arXiv preprint arXiv:1609.08144*.
- Yoon, K., Park, J. Y., & Park, H. (2021). Building intercultural competence through AI-based digital training: A preliminary study. *International Journal of Intercultural Relations*, 85, 35-47.
- Zhai, X., Sun, W., & Du, J. (2023). Artificial intelligence and international entrepreneurship: A systematic literature review and future research agenda. *Journal of International Business Studies*, 54(2), 248-275

#### About the Author:

Dr. Israr Ahmad is a dedicated academic and management professional, currently engaged as a Post-Doctoral Fellow at Universiti Sains Malaysia's School of Management. With a doctorate from Universiti Utara Malaysia, he has 6 years of combined experience in industry and academia. Dr. Ahmad has made significant contributions to the field with 20 research publications in renowned national and international journals, and actively participates in editorial capacities. His research interests are innovation management, strategic management, and organizational development. Committed to using his expertise in education, research, and analytics, Dr. Ahmad aspires to elevate underprivileged communities through advanced management education, advocating for higher enrollment and curriculum modernization in higher education. His post-doctoral work continues to build on his vision of merging research with practical applications to benefit society sustainably.