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Cross-Cultural AI Prompting Competencies for Future Global Managers: An Initial Expert-Reviewed Nominal Group Study

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Abstract: Generative AI (GenAI) can support managerial analysis but using it effectively in global business involves more than knowing how to write prompts. This study presents an initial Cross-Cultural AI Prompting Competency Framework (CAIPCF) for business education. The framework was developed through a sequential nominal group technique (NGT) involving 53 undergraduate business students in six independent panels. Two panels, comprising 18 students, were held at a multicultural private university; the other four, comprising 35 students, were held at a predominantly monocultural public university. Panel-level rankings and qualitative responses were synthesised by one researcher into a preliminary framework. Eight experts representing strategic management, international business, management education, and GenAI-enabled industry practice reviewed its content in a single 30-minute session. The analysis yielded five domains: strategic judgement, cross-cultural competence, AI prompting, critical evaluation, and human–AI collaboration. The 30-minute expert review and student sample bound the claims: the CAIPCF is an educationally oriented framework for further testing, rather than a definitive or psychometrically validated specification of global-manager requirements. It connects technical prompting with strategic, cultural, evaluative, and ethical capabilities and identifies a basis for subsequent multi-stakeholder validation.

Keywords: *Cross-cultural competence, Generative artificial intelligence, AI prompting, Global managers, Nominal group technique*

1. Introduction and Background

Generative AI is increasingly being applied to business and financial analysis, knowledge management, and organisational decision-making (Chen et al., 2023; Kaczorowska-Spychalska et al., 2024; Leoni et al., 2024). The growing use of GenAI is changing how managers gather information, consider alternatives, and develop recommendations. Yet a fluent AI response does not, on its own, ensure a sound decision. Managers must first define the problem clearly, provide relevant context and consider cultural perspectives and possible bias. They also remain accountable for the final judgement. Even a well-structured prompt may produce advice that is strategically unsound or culturally inappropriate if it leaves important assumptions about hierarchy, communication, risk, time, identity, or stakeholder expectations unstated. GenAI can support managerial decision-making and knowledge management, but its value depends on how managers interpret and apply its outputs (Korzynski, Mazurek, Altmann, et al., 2023).

This has clear implications for business education. Undergraduate students are using GenAI as they develop the judgement needed to interpret information, work across cultural differences and make responsible decisions. The technology can support learning by offering explanations, examples, feedback and alternative viewpoints. However, students may also rely on its responses too readily or accept inaccurate information without checking. Educators therefore need to help students assess AI-generated content, verify claims, recognise the technology's limitations and take responsibility for their academic and professional decisions (Farrokhnia et al., 2024).

Students preparing for global business careers also need intercultural competence. They must be able to communicate and work effectively with people whose cultural assumptions, values and expectations may differ

from their own. Simply encountering different cultures is not enough to develop this competence. Students need opportunities to reflect on cultural differences, consider other perspectives and adapt their behaviour during intercultural interactions. Recent research in higher education shows that intercultural competence supports collaboration across different social and cultural contexts and contributes to students' preparation for internationally connected workplaces (Guillén-Yparrea & Ramírez-Montoya, 2023).

The need to combine intercultural competence with AI capability becomes more apparent when GenAI is used for international markets, multicultural teams, negotiations, stakeholder communication, or cross-border decision-making. In these situations, users must do more than ask clear questions. They need to recognise whose perspectives are represented, identify what cultural and organisational information is missing, verify the accuracy of the response, and determine whether the proposed action is appropriate for the people and institutions involved. They must also revise their prompts when an initial response contains weak assumptions, overlooks relevant stakeholders, or reflects a narrow cultural viewpoint. This reflects the wider understanding of GenAI as part of a human and technological system in which the quality of the result depends on both the capability of the technology and the judgement of the person using it (Feuerriegel et al., 2024).

Essentially, the human role is central to cross-cultural AI prompting competence. It involves writing and revising prompts, checking GenAI's responses, and judging whether they are sound, ethical, and appropriate for the cultural setting. The competence encompasses five connected areas: strategic judgement, cross-cultural competence, AI prompting, critical evaluation and human–AI collaboration. Together, these areas describe capabilities that future managers may need when using GenAI in culturally diverse settings. This view also reflects research that understands intercultural competence as involving awareness, interpretation, reflection, communication and appropriate action, rather than simply knowing about cultural differences (Mitchell, 2023). Recent reviews of AI literacy in higher education describe a field with several useful perspectives, but limited agreement on how to translate them into teaching (Hackl et al., 2026). Research has also tended to develop in separate areas. AI-literacy education has often focused on computer-science settings, with less attention to applying AI to everyday problems (Kong et al., 2024). Prompt engineering has been described as a digital competence in its own right (Korzynski, Mazurek, Krzypkowska, & Kurasinski, 2023), while intercultural competence is commonly understood as a developmental process (Huang, 2023). Management research has examined GenAI's role in organisational knowledge management and change (Kaczorowska-Spychalska et al., 2024). Using the Delphi method, Dai and Feng (2025) re-examined the definition, core components, and evaluation criteria of intercultural competence.

To address this gap, the study develops an initial Cross-Cultural AI Prompting Competency Framework (CAIPCF) for business education and the preparation of future global managers. It has three aims: to identify competencies that undergraduate business students consider important; to organise and prioritise their ideas through student NGT panels, followed by a content review by multidisciplinary experts; and to present a framework that can guide curriculum development and future research. Students provide insight into learning needs, but their views do not replace the experience of practising global managers. The expert review adds academic and professional perspectives. The framework should therefore be considered preliminary until it is assessed with a wider range of participants.

With this in mind, the study poses the following research question:
What competencies do future global managers actually need to craft, contextualise, assess, and refine GenAI prompts in a way that is both effective and responsible, particularly when working across culturally diverse managerial settings?

The study makes a few contributions to the literature. First, it brings AI prompting into conversation with strategic judgement, cross-cultural competence, critical evaluation, and responsible human-AI collaboration. This gives a wider lens than work that mostly concentrates on how prompts are worded or structured. Second, the study uses a structured consensus-building process with six student NGT panels, which is then validated by experts from strategic management, international business, management education, and industry practice. Third, the resulting CAIPCF provides practical guidance for embedding these competencies into courses on strategic management, global business strategy, international business, and cross-cultural management. This kind of integration matters because GenAI is increasingly shaping managerial decision-making, while

intercultural competence continues to be essential for collaborating effectively across diverse business environments (Albashrawi, 2025; Guillén-Yparrea & Ramírez-Montoya, 2023).

2. Literature Review

Intercultural Competence in Global Management

The ability to interact with individuals from diverse cultural backgrounds suitably and successfully is known as intercultural competence. It involves more than just picking up cultural traditions and observing obvious distinctions. People also need to have openness, curiosity, cultural self-awareness, empathy, and the capacity to perceive things from other people's viewpoints. Deardorff's (2006) process model views intercultural competence as a continuous developmental process where attitudes influence the acquisition of cultural information and interpersonal skills, which in turn affect internal comprehension and external behavior. This perspective is supported by more recent research, which contends that meaningful contact, reflection, and engagement, rather than cultural exposure alone are the ways in which intercultural competency in higher education develops (Mitchell, 2023).

This insight is especially crucial to global management. Managers frequently collaborate with employees, customers, suppliers, regulators, and business partners who have varying expectations around authority, trust, time, disagreement, risk, and relationship-building. A culturally informed response requires the manager to listen carefully, evaluate the context, consider alternate interpretations, and adapt communication as needed. Effective managers must therefore detect when cultural differences are influencing a situation and determine how to respond without making naive assumptions. Research in higher education indicates that intercultural competency enhances communication, teamwork, problem-solving, and collaboration across cultural and institutional boundaries (Guillén-Yparrea & Ramírez-Montoya, 2023).

Cultural competence must not be viewed as a list of national traits. National culture frameworks might assist managers in recognizing potential differences, yet they cannot completely account for the actions of an individual, team, or organisation. Cultural identities are formed by various factors, such as nationality, ethnicity, language, religion, occupation, generation, education, and work experience. Managers should utilize cultural understanding as a foundation for investigation instead of as a means for forecasting. Research on intercultural learning facilitated by technology shows that cultural comprehension improves more efficiently when learners engage in active exploration of cultural contexts, consider diverse perspectives, and are given chances to modify their interpretations (Liu et al., 2023).

When managers employ GenAI for international business tasks, these skills become more crucial. For instance, a manager might request that GenAI draft a message for a foreign stakeholder, offer strategies for international negotiation, assess a market-entry possibility, or offer guidance on conflict within a multicultural team. If the query does not give sufficient organisational, situational, and cultural context, the response may be grammatically correct but nevertheless inappropriate. The user can choose what information should be included in the prompt and whether the final response is suitable for the target audience with the aid of intercultural competence. Thus, it provides a crucial basis for AI prompting and decision-making that is sensitive to cultural differences (Guillén-Yparrea & Ramírez-Montoya, 2023; Mitchell, 2023).

Global leadership research provides a more specific basis for identifying the cultural demands of international managerial work. Bird et al. (2010) describe intercultural competence for global leaders as a broad content domain involving the capacities to perceive, interpret, and act effectively across cultural contexts. Cultural intelligence research similarly links metacognitive and cognitive capabilities with cultural judgement and decision-making, and motivational and behavioural capabilities with adaptation (Ang et al., 2007; Saihani et al., 2018). These perspectives support the CAIPCF's distinction between understanding context, adapting behaviour, communicating, and applying judgement; they also caution against reducing intercultural competence to factual knowledge of national cultures. Deardorff's (2006) consensus-based model is especially relevant to the present educational setting because it identifies intercultural competence as a student learning outcome and emphasises attitudes, knowledge, skills, internal shifts and appropriate external behavior.

AI Prompting, Critical Evaluation and Human Accountability

GenAI allows users to produce text, organise information, generate alternatives, and explore possible solutions through natural-language instructions. In a managerial setting, prompting involves explaining the task, providing relevant context, identifying the intended audience, stating constraints, and specifying the expected output. A useful prompt should help the AI system understand not only what the user wants but also why the task matters and how the response will be used. Research on GenAI in organisations shows that the technology can assist with decision-making, knowledge management, customer service, human resource management, and administrative work when it is applied with a clear understanding of the organisational purpose (Korzynski, Mazurek, Altmann, et al., 2023). Prompting is not complete when the first response is produced. Users need to assess the response and judge whether it actually solves the problem. If it doesn't, they might supply additional information, clarify the cultural context, reassign the role given to the AI system, or ask for alternative scenarios. They might also request the system to clarify the reasoning behind its suggestion. These actions are significant since GenAI is applied in social and organisational contexts, and the value of its results relies partially on the details and context supplied by the user (Feuerriegel et al., 2024).

A critical assessment is essential since a seemingly assured answer may still be inadequate, incorrect, biased, or inappropriate for the context. Students and managers ought to verify factual statements with trustworthy sources and assess if the answer is based on untested assumptions. In cross-cultural efforts, this involves questioning if the answer reflects a single cultural viewpoint as universal or perpetuates stereotypes concerning a community or group. Studies in higher education have found that misinformation, bias, lack of transparency, and excessive dependence are among the dangers linked to GenAI usage (Farrokhnia et al., 2024). Thus, human supervision must persist during engagement with GenAI. Managers must continue to be accountable for identifying the issue, selecting which information to communicate, assessing the feedback, and deciding if it should influence their actions. GenAI may enable organizing evidence and proposing alternatives, yet the accountability for a managerial decision lies with the decision-maker. Studies on GenAI-aided decision-making also emphasize that the technology must enhance human judgment rather than replace contextual knowledge, ethical considerations, or accountability (Albashrawi, 2025).

Closely related to this is the notion of AI literacy, which provides a broader foundation for such judgment. Long and Magerko (2020) explain AI literacy as the ability to critically evaluate AI, communicate and collaborate with it, and use it effectively. Ng et al. (2021) organize AI literacy into knowing and understanding, using and applying, evaluating and creating, and ethical issues. UNESCO's AI competency framework for students likewise focuses on a human-centred mindset, ethics, AI techniques and applications, and system design (Miao et al., 2024). These frameworks indicate that prompting is only one part of competent AI use. The CAIPCF extends this educational conversation by locating AI literacy in culturally situated managerial tasks, where users must frame a strategic problem, supply context, test outputs, and remain accountable for decisions.

Integrating Strategic, Cultural and AI Capabilities

Managerial issues are seldom independent. A choice concerning a new market, vendor, worker, or an international partner can impact various stakeholders and lead to effects throughout multiple areas of an organisation (Eisenhardt, 1989; Mintzberg et al., 1976). Systems thinking aids managers in grasping these relationships and identifying how a single choice could affect different activities. Scenario assessment enables them to evaluate potential actions and reflect uncertainty, whereas prioritizing decisions assists them in identifying which matters need urgent focus. What follows from this is that GenAI can help organize data and generate options, yet the manager still decides what needs to be asked and how the resulting information connects to the wider strategic problem (Albashrawi, 2025; Korzynski, Mazurek, Altmann, et al., 2023). Such decisions, though, are shaped well before the prompt is written. Strategic judgement helps the user define the managerial problem, identify relevant stakeholders, and clarify the purpose of the analysis. Cross-cultural competence, meanwhile, helps the user recognize the cultural and institutional context that the AI system needs to consider. Together, these competencies shape how the problem is framed and what the AI system is asked to do. Prompting then translates this understanding into instructions that specify the task, audience, constraints, and expected output.

This connection reflects the view that GenAI should be understood as part of a broader organisational system in which human knowledge and technological capability work together (Feuerriegel et al., 2024). Human-AI

collaboration is thus a cyclical process where technology offers data or potential solutions, and the user supplies context, evaluation, and responsibility. This type of collaboration can support managerial decision-making, though its value depends on whether the human user can recognize both the strengths and limitations of the technology (Albashrawi, 2025). It is important to note, however, that the study does not claim the framework represents a definitive occupational norm, nor that the student sample is representative of managers in practice. Recent studies on business graduates, which examine intercultural abilities from the perspectives of both employers and students, highlight the value of treating these as complementary sources (Prouska et al., 2026).

The literature therefore supports five connected competency domains. Strategic judgement concerns the ability to define problems, examine systems, evaluate scenarios, and establish priorities. Cross-cultural competence supports cultural adaptability, intercultural communication, and sensitivity to context. AI prompting concerns the formulation, contextualisation, and refinement of instructions. Critical evaluation involves fact verification, bias recognition, and reflective judgement. Human-AI collaboration covers collaborative problem-solving, ethical oversight, and responsible AI use. Although these areas have been discussed separately in previous studies, the literature provides limited guidance on how they can be combined into a single competency framework for future global managers. This gap provides the basis for developing and validating the Cross-Cultural AI Prompting Competency Framework through student NGT panels and subsequent expert review (Farrokhnia et al., 2024; Guillén-Yparrea & Ramírez-Montoya, 2023).

Student Perspectives and the Scope of the Framework

Undergraduate business students are appropriate informants for an educationally oriented framework because they are the intended learners whose current and anticipated learning needs are at issue. Higher education research treats intercultural competence as a student outcome that can be developed and assessed (Deardorff, 2006), while emerging AI literacy frameworks explicitly address students' capacity to understand, use, evaluate, and engage ethically with AI (Long & Magerko, 2020; Miao et al., 2024; Ng et al., 2021). Student panels can therefore identify how these capabilities are understood and prioritised in the learning context. They cannot, by themselves, establish the complete competency requirements of experienced global managers. The present study addresses that boundary by including a multidisciplinary expert review and by positioning the CAIPCF as an initial curriculum framework. It does not claim that the student sample represents practising managers or that the framework is a final occupational standard. Recent research on business graduates also examines intercultural competencies through both student and employer perspectives, underscoring the value of treating these as complementary sources (Prouska et al., 2026).

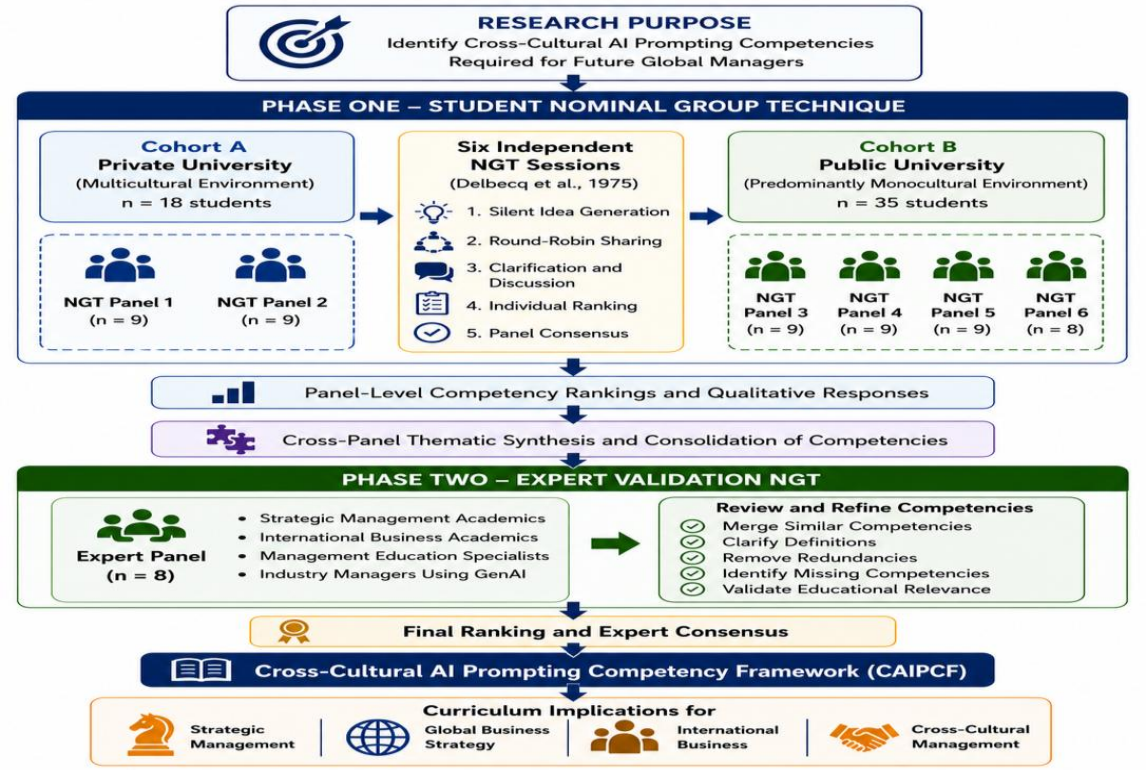
3. Research Methodology

Research Design

This research used a sequential, two-stage nominal group technique (NGT) approach to create and confirm the Cross-Cultural AI Prompting Skills Framework (CAIPSF). NGT was chosen as it offers a systematic method for participants to independently create ideas, articulate their perspectives, debate similarities or differences, and set shared priorities (Delbecq et al., 1975). The approach is especially beneficial when research aims to create a competency framework based on the insights and experiences of multiple groups, making sure that quieter participants can also provide input (Mullen et al., 2021). The study was carried out in two stages. Phase One concentrated on pinpointing the cross-cultural AI prompting skills that undergraduate business students deemed essential for upcoming global managers. The concepts and rankings produced by the student panels were then merged and structured into an initial competency framework. Phase Two included expert confirmation of the initial framework. The specialists examined the suggested domains and competencies, clarified their definitions, evaluated any overlaps or omissions, and determined their significance for management education and professional practice. This pattern aligns with recent uses of NGT where participant knowledge is collected methodically and subsequently enhanced through organized consensus-building (Black et al., 2025).

Figure 1, presented on the following page, provides an overview of the research process. It begins with the research purpose and the student NGT panels, then moves through to expert validation, the final CAIPCF, and finally the implications for curriculum design.

Figure 1: Research Process for Developing the Cross-Cultural AI Prompting Competency Framework



Note. The figure presents the study's two-phase research design, showing the participant groups, the NGT procedures, the cross-panel synthesis, the expert validation stage, and how the final CAIPCF was developed.

Participants and Panel Composition

Phase One included 53 undergraduate business students divided into six separate NGT panels. Cohort A consisted of 18 students from a private university featuring a diverse educational setting. These students were split into two groups, each consisting of nine participants. Cohort B consisted of 35 students from a public university featuring a mostly monocultural educational setting. They were split into three groups of nine individuals and a panel consisting of eight individuals. Splitting the students into smaller groups enabled each participant to engage during the brainstorming and dialogue phases while maintaining the sessions controllable. Smaller groups are typically appropriate for NGT since the approach relies on organized involvement and fair chances for individuals to share their thoughts (Mullen et al., 2021).

The purpose of including the two cohorts was to gather viewpoints from various educational settings. Students from a largely monocultural background may learn more about local institutional and cultural experience, whereas those in a multicultural university setting tend to engage more often with international peers. The study did not assume that one environment produced stronger competencies than the other. Instead, the two settings provided different perspectives that could contribute to developing a framework relevant to a wider range of business students. The institutional descriptions refer only to the learning environments represented in this study and should not be treated as general descriptions of all private or public universities.

Total population sampling was used in Phase One. All students enrolled in the Intercultural Management or Global Management course during the study period were invited to participate, as the entire accessible student population was considered relevant to the study's purpose. Their enrolment in the course provided a shared academic foundation in intercultural concepts and global managerial issues. Participation in the research was voluntary, and students' decisions to participate or decline did not affect their course grades, assessment results, or relationship with the lecturer.

The student sample was selected because the immediate application of the framework is the preparation of

business students for future global management work. Their course enrolment provided relevant academic exposure to intercultural and global-management concepts, and the panels were designed to elicit perceived learning needs and prioritise competencies, not to certify occupational competence. Students' lack of extensive international management experience is therefore a boundary on the inference: their contributions supply an educational and anticipatory perspective. The expert panel was included to assess relevance beyond the classroom. Accordingly, the sample supports an initial educational framework but does not warrant claims that the competencies have been comprehensively established for practising global managers.

Eight specialists from four fields such as strategic management, international business, management education, and industrial practice utilizing GenAI participated in Phase Two. The panel's diverse makeup was meant to guarantee that the framework applied to both managerial practice and management education. Three qualifying requirements were utilized to choose experts: having at least a master's degree, having taught internationally focused courses or worked in an international industry for at least two years, and having hands-on expertise with GenAI products. Given that suggested abilities can be examined from a range of professional viewpoints, the inclusion of participants with different areas of expertise strengthens the development of NGT-based frameworks (Black et al., 2025).

Table 1: Participant Structure and Analytical Role

Phase	Participant group	Panels and sample size	Role in the research
Phase One	Cohort A: Private university with a multicultural learning environment	2 panels; n = 18	Generate, discuss, clarify, and rank competencies before reaching panel-level consensus
Phase One	Cohort B: Public university with a predominantly monocultural learning environment	4 panels; n = 35	Generate, discuss, clarify, and rank competencies before reaching panel-level consensus
Phase Two	Expert panel: academics, education specialists, and GenAI-using managers	1 panel; n = 8	Merge, clarify, remove redundancy, identify gaps, and validate relevance.

Student Nominal Group Procedure

During Phase One, six NGT sessions were carried out separately. "*What competencies do future global managers need to use GenAI effectively, ethically, and properly across culturally varied corporate settings?*" served as the guiding question for each session. While allowing each group to produce and rank its own ideas, uniformity was preserved by using the same guiding question and process for all six panels. Five steps were used in every student session: individual rating, panel consensus, round-robin sharing, clarification and discussion, and silent idea production. The established NGT process is reflected in this sequence, which aids in striking a balance between structured group debate and autonomous thought (Mullen et al., 2021).

Participants independently recorded their ideas during silent idea generation without consulting other participants. This phase decreased the possibility that the initial speaker would direct the conversation and allowed participants to consider the question. Each participant submitted one idea at a time during round-robin sharing until every concept was recorded. Throughout the discussion, participants could examine a shared online document that the facilitator used to record the ideas in real time. At this point, participants were not asked to defend or assess their recommendations. Participants were able to ask questions, clarify the meaning of their ideas, and point out similarities and differences throughout the explanation and discussion stage. Instead of arguing with the person who presented each competency, the facilitator urged participants to concentrate on understanding each competency.

Although similar concepts were clarified during the debate, it was not until the later phases of analysis that competencies were explicitly integrated across panels. Before participants award their individual ranks, this structured conversation is crucial because it establishes a common understanding (Black et al., 2025). Using a five-point importance scale (1 = Not Important, 2 = Somewhat Important, 3 = Important, 4 = Very Important,

and 5 = Critical), participants independently evaluated each competency produced by their panel. The separate ratings were combined to determine a comprehensive importance score for every competency, and the competencies were ordered from the highest to the lowest score. When two competencies achieved the same overall score, the one with more critical ratings was ranked above the other, then followed by the count of very important ratings if needed. The final rankings were shown to the panel for validation and dialogue to guarantee that they accurately reflected the group's overall assessment. The time needed to complete a nominal group varies with group size, the number of questions asked, and the type of participants involved, and adapting stage timings to the time participants have available or to the level of clarification and consensus required is explicitly recognized as a legitimate variation of the method (McMillan et al., 2016). In an extended scoping review of virtual NGT studies, 80% of responding authors considered the virtual format comparable or superior to face-to-face delivery (Lee et al., 2024). Accordingly, every NGT session in this study took around 30 minutes and was held virtually, a duration that reflected the availability of participants and the scope of the questions posed.

Expert Validation Procedure

In Phase Two, the eight-person expert panel reviewed the initial framework created by the student panels. The five suggested domains and the competencies that go along with them were examined by the experts. It was their responsibility to ascertain whether the competencies were distinct, well-defined, pertinent to future global managers, and appropriate for inclusion in business and management education. Five activities were the main emphasis of the expert validation procedure. The experts considered whether closely related competencies should be combined, whether definitions needed to be clarified, whether any items were redundant, whether crucial competencies were absent, and whether the framework was useful from an educational and professional standpoint. Before the experts made their final decision, each suggested modification was examined.

This methodical assessment assisted in ensuring that the final competencies were relevant to both academic and professional users and that the framework was not exclusively reliant on student perspectives. Similarly, recent NGT research shows how professional learning demands can be agreed upon and concepts clarified through expert debate and rating (Black et al., 2025). Expert agreement was achieved when at least 75% of the panel members, equivalent to six of the eight experts, rated competency as either Very Important or Critical. Where this threshold was not met, the panel discussed the competency's wording, meaning, relevance, and placement within the framework. The competency was then revised based on discussion and independently rated again using the same consensus threshold. Competencies that still did not meet the threshold after the second rating were either removed or returned for further revision, depending on the panel's documented decision. The expert validation session lasted approximately 30 minutes and was conducted online.

The 30-minute meeting should be interpreted as a bounded content-review session, not as an extended Delphi exercise or a substitute for a multi-round validation study. The five domains provided the organising structure for review of the 15 associated competency statements. The panel's remit was to consider clarity, distinctiveness, relevance, overlap, omissions, and educational/professional fit, with a consensus threshold of six of eight ratings at "Very Important" or "Critical" as stated above. All 15 competencies were retained in the reported framework. No competency-specific rejection or significant modification example is claimed because the study records supplied for this paper do not offer an auditable item-by-item log of suggested phrasing changes, rejected items, or the order of individual expert comments. The session provides only a preliminary expert content assessment, but more item-level discussion and repeatable change monitoring are still required in subsequent work, which may limit the validity of the validation claim. Session length must be understood in conjunction with the exercise's goal and record because NGT research acknowledges that the amount of time needed changes with the number and complexity of items (Mullen et al., 2021).

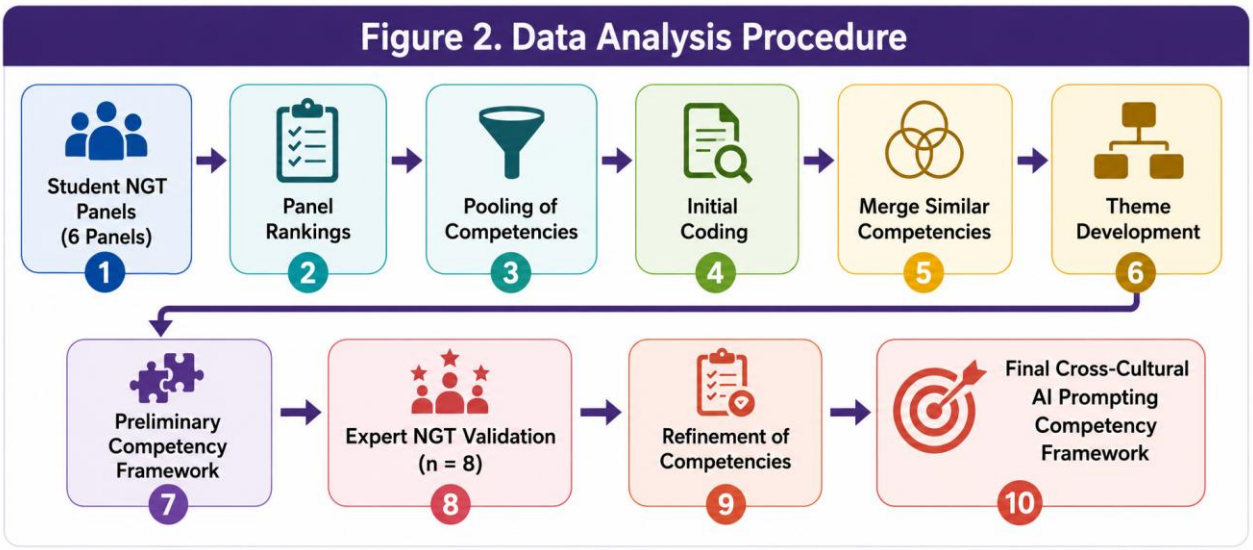
Data Analysis

The ten-step process shown in Figure 2 was used for data analysis. In order to preserve the thoughts and rankings of each panel prior to cross-panel consolidation, the first two phases kept the outputs of the six student panels independently. This was crucial because competencies that were highly relevant to one educational context but less commonly articulated in another could have been hidden by quick aggregation. The skills produced by the six panelists were integrated into a single dataset at Stage 3. In Stage 4, the

researcher went over the qualitative replies and awarded preliminary codes based on each idea's managerial capacity and meaning. Each code was compared with comparable responses from the six NGT panels and verified against the initial student-generated response. Before selecting the best classification for a response that might logically be allocated to multiple codes or domains, the researcher considered the response's significance, managerial goal, and relationship to the other competences.

The initial codes, related competencies that were later consolidated, thematic domains, and changes made during the study were all recorded in an audit trail. Later, during the validation process, the expert panel examined the initial competency framework and coding structure. This documentation made it possible to link the final framework to the ideas that the participants had first come up with (Mullen et al., 2021). During Stage 5, competencies that had related meanings were evaluated and combined when suitable. Efforts were made to avoid merging concepts simply due to the use of comparable terminology. The investigator contemplated whether the competencies reflected the same ability, fulfilled the same managerial function, and could be articulated through a common definition. At Stage 6, the combined skills were grouped into wider themes. This method generated five areas: strategic decision-making, cultural sensitivity, AI interaction, analytical assessment, and human-AI teamwork. At Stage 7, the five domains along with their respective competencies were arranged into an initial CAIPCF. In Stage 8, the initial framework was presented to the panel of eight experts. The modifications suggested during the expert review were analysed in Stage 9, and the competencies were enhanced for better clarity, uniqueness, and educational significance. Stage 10 resulted in the completion of the final CAIPCF. Figure 2 illustrates the connection among student panel outputs, rankings at the panel level, coding, consolidation of competencies, theme creation, validation by experts, and the ultimate framework.

Figure 2: Data Analysis Procedure



Note. The ten stages show how the outputs from the six student NGT panels were transformed into a preliminary framework, reviewed by the expert panel, and refined into the final CAIPCF.

Table 2: Alignment Between the Data Analysis Stages and Research Outputs

Stage	Analytical activity	Resulting output
1–2	Conduct six student NGT panels and retain panel-level rankings	Six sets of student-generated competencies and panel rankings
3–4	Pool the competencies and conduct initial coding	Combined and coded set of student-generated competencies
5–6	Compare related competencies, merge overlapping items, and develop themes	Consolidated competencies organised into five domains
7	Construct the preliminary framework	Preliminary CAIPCF
8–9	Conduct expert NGT validation and refine the competencies	Expert-reviewed domains, definitions, and competencies
10	Finalise the framework	Final five-domain CAIPCF

Trustworthiness and Analytical Rigour

Several steps were used to strengthen the trustworthiness of the study. First, silent idea generation allowed participants to record their views before hearing from others. Second, round-robin sharing ensured that every participant had an opportunity to contribute. Third, individual ranking reduced pressure to follow the most dominant view in the group. Fourth, the six panels operated separately prior to their results being combined. Ultimately, expert validation offered an independent assessment of the framework's clarity, thoroughness, and educational significance. These methods enhanced the study's reliability by integrating independent assessment, organized dialogue, clear prioritisation, participant validation, and expert review from multiple disciplines (Black et al., 2025; Mullen et al., 2021).

A record of the analysis was kept tracking the development from the original student ideas to the first codes, combined competencies, five domains, initial framework, expert suggestions, and the final CAIPCF. The documentation comprised the collective online files utilised in the NGT sessions, competency listings and rankings at the panel level, coding and consolidation logs, along with amendments made after expert validation. Confirmation from participants was secured when the rankings at the panel level were shown to the students for their review and approval following each NGT session. The expert panel from various disciplines later assessed the initial framework, definitions of competencies, domain positioning, and educational significance. These processes assisted in minimizing the chances that the ultimate framework represented the researcher's perspective solely.

One researcher carried out the synthesis. That researcher's interpretive choices were documented in the audit trail and checked against the original statements, panel-level outputs, the rankings confirmed by participants, and the expert-reviewed framework. Statements generated through the NGT were then compiled systematically into competencies and domains. These steps support traceability and leave room for challenge, though they do not amount to independent coding consensus. Cohen's kappa is not required for every qualitative analytic approach; whether it fits depends on the analytic goals and epistemological commitments at stake. Reflexive thematic analysis, in particular, cautions against treating interpretive coding as a stable and objectively replicable act of classification (Braun & Clarke, 2023; Byrne, 2022). The difficulty here is that a single-researcher synthesis cannot be retrospectively validated through a reliability coefficient, and this study does not claim to be a reflexive thematic analysis. Future replications might retain the NGT design while adding a collaborative sense-check or an independent analytical assessment.

Ethical Considerations

Participants were informed about the aims of the study, the voluntary nature of participation, the anticipated activities, and the planned use of the results. They were also told that they could skip any question they preferred not to answer. Informed consent was obtained either in writing or through recorded verbal consent before the NGT sessions began. Participants' identities, email addresses, and other direct identifiers were removed from the analytical files. Panel numbers and cohort identifiers were used instead when organising and presenting the results.

4. Results

Stages 1-2: Independent student NGT panels and panel rankings

A set of panel-level competency rankings and qualitative answers from six separate groups constituted the initial analytical result. The two institutional contexts' contributions were kept separate prior to any aggregation, which made the panel separation methodologically significant. While Cohort B represented a largely monocultural public university setting, Cohort A represented a multicultural private university setting. Therefore, the design allowed for contextual breadth without utilizing institutional type as a deterministic proxy for individual intercultural competency or considering either cohort as a statistical population. Priority was now set within each panel by the NGT procedure rather than among all 53 students. The panel output was therefore the proper unit of synthesis. No supporting panel score or assertion of a statistically significant cohort difference is presented because the uploaded materials do not include the six raw ranking matrices.

Stages 3-4: Pooling and initial coding

Panel results were consolidated after the independent sessions concluded. The first coding centered on the

activity suggested by each competency statement: comprehending a managerial framework, contrasting situations, prioritizing choices, adjusting to cultural variances, interacting across cultures, setting context for AI, verifying information, identifying bias, practicing reflective thinking, partnering with AI, and upholding ethical accountability. Coding at the level of managerial action assisted in making broad values like "awareness" or "responsibility" more concrete for curriculum design. The coding indicated that the developing competencies functioned at various stages within an AI-assisted decision-making process. Certain competencies define the issue before prompting; some affect how the request is conveyed to the AI system; others assess the answer; and still others regulate the human-AI interaction. This temporal logic served as the link between a collection of concepts and a cohesive structure.

Stages 5-6: Merging competencies and developing themes

Items that overlapped conceptually were combined into 15 competencies. These were arranged according to five themes such as critical evaluation, AI prompting, cross-cultural competency, strategic judgment, and human-AI cooperation. Three competencies are included in each theme, creating a well-balanced framework that is nonetheless sufficiently specialized for instruction and evaluation.

Table 3: The Five CAIPCF Domains and 15 Consolidated Competencies

Domain	Competencies	Function in AI-assisted global management
Strategic Judgement	Systems thinking, scenario evaluation, decision prioritization	Defines the managerial problem, alternatives, interdependencies and priorities.
Cross-Cultural Competence	Cultural adaptability, contextual sensitivity, intercultural communication	Ensures that stakeholders and interaction norms are reflected in prompts and outputs.
AI Prompting	Prompt formulation, contextual framing, iterative refinement	Translates managerial intent into clear instructions and improves outputs through iteration.
Critical Evaluation	Fact verification, bias recognition, reflective judgement	Tests accuracy, assumptions, fairness, and managerial fitness before action.
Human-AI Collaboration	Collaborative problem-solving, ethical oversight, responsible AI use	Upholds responsible use boundaries, responsibility and accountability

Stage 7: Preliminary competency framework

The initial framework presented the five themes as part of a single managerial process rather than as disconnected features. Strategic judgement determines which decisions need support. Cultural awareness and sensitivity determine whose context and viewpoint should be reflected. AI prompting conveys the task and its constraints. Critical assessment questions the response that has been produced. Human-AI collaboration oversees iteration, escalation, responsibility, and use. The sequence is recursive: assessment may reveal a missing cultural assumption, which calls for rephrasing and a further prompt, while ethical oversight may require the user to stop using AI for a particular task or to seek additional human input.

Stages 8-9: Expert validation and refinement

The eight-member expert group assessed the initial framework for coherence, distinctiveness, and redundancy, as well as for oversights and its educational and career relevance. All five areas remained in the final structure, and all 15 competencies were retained. The assessment offers a professional evaluation of the framework's overall content and structure, though the study record does not specify which competencies were dismissed or substantially revised. The results are therefore presented at the framework level rather than attributing unrecorded item-specific changes to individual expert discussions. This distinction matters because retention after review supports preliminary content relevance, but it should not be read as evidence of exhaustive consensus or as proof that every competency was debated in depth.

Stage 10: Final Cross-Cultural AI Prompting Competency Framework

Following the expert content review, five domains and fifteen competencies made up the reported Cross-Cultural AI Prompting Competency Framework. Strategic judgment, cross-cultural competency, AI prompting, critical evaluation, and human-AI collaboration were the five domains. The expert panel applied the consensus rule described in Section 3.4 to assess importance. All 15 competencies were retained in the reported framework. Because item-level revision records were not available for reporting, the results do not specify particular rejected or heavily modified items. The framework should consequently be read as a preliminary, expert-reviewed synthesis rather than a final occupational competency standard.

Table 4: Final Cross-Cultural AI Prompting Competency Framework

Domain	Competency	Operational meaning
Strategic Judgement	Systems thinking	Recognising how a managerial issue is connected to wider organisational, stakeholder, cultural, and societal systems.
Strategic Judgement	Scenario evaluation	Comparing alternative actions and considering their possible consequences under different cultural and business conditions.
Strategic Judgement	Decision prioritisation	Determining which issues, stakeholders, risks, and actions require the greatest managerial attention.
Cross-Cultural Competence	Cultural adaptability	Adjusting communication, behaviour, and managerial approaches when working across different cultural settings.
Cross-Cultural Competence	Intercultural communication	Communicating clearly and respectfully with people whose cultural assumptions, languages, or communication practices may differ.
Cross-Cultural Competence	Contextual sensitivity	Recognising how cultural, organisational, institutional, and situational factors may influence the meaning and suitability of a response.
AI Prompting	Prompt formulation	Expressing a managerial task clearly by specifying the purpose, audience, requirements, constraints, and expected output.
AI Prompting	Contextual framing	Providing GenAI with the cultural, organisational, stakeholder, and situational information needed to generate a relevant response.
AI Prompting	Iterative refinement	Reviewing an initial response and revising the prompt to address missing information, weak assumptions, or unsuitable recommendations.
Critical Evaluation	Fact verification	Checking AI-generated claims against credible and relevant sources before using them in managerial analysis or decision-making.
Critical Evaluation	Bias recognition	Identifying stereotypes, cultural assumptions, unequal representations, or other forms of bias in AI-generated content.
Critical Evaluation	Reflective judgement	Considering the quality, relevance, limitations, and possible consequences of an AI-generated response before deciding whether to use it.
Human-AI Collaboration	Collaborative problem-solving	Using GenAI to explore ideas and alternatives while retaining meaningful human involvement in interpreting and resolving the problem.
Human-AI Collaboration	Ethical oversight	Examining whether the use of GenAI and its output is consistent with ethical principles, confidentiality requirements, fairness, and stakeholder interests.
Human-AI Collaboration	Responsible AI use	Maintaining human accountability, disclosing the use of GenAI where required, and applying appropriate limits to its role in managerial decisions.

The five domains are connected rather than independent. Strategic Judgement helps the manager define the

problem and determine what requires attention. Cross-Cultural Competence helps the manager identify the cultural and institutional context that should be considered. AI Prompting translates this understanding into clear and relevant instructions. Critical Evaluation allows the manager to assess the accuracy, bias, relevance, and limitations of the response. Collaboration between humans and AI guarantees that GenAI enhances management thinking without taking the place of human accountability. Additionally, the relationships between the domains are iterative. Critical analysis, for instance, can show that an AI-generated response ignores a significant stakeholder or depends on an unsuitable cultural presumption. After that, the manager might need to reevaluate the issue, provide pertinent context, and improve the prompt. The manager may also need to reject output, look for more proof, speak with someone else, or refrain from utilizing GenAI for a certain activity due to ethical issues.

The final CAIPCF should not be viewed as a hierarchy where one domain holds greater significance than another. Every domain tackles a distinct need for the responsible application of AI in worldwide management. A deficit in any single area might diminish the overall quality of the decision. A well-crafted prompt cannot make up for flawed strategic decisions, absent cultural context, insufficient verification, or the absence of human responsibility. The framework offers an organized foundation for cultivating cross-cultural AI prompting skills in business education. It can be utilised in learning tasks related to international market analysis, management of multicultural teams, negotiation across borders, communication with stakeholders, and strategic decision-making on a global scale. Its educational benefit lies in assisting students in grasping that responsible GenAI utilization necessitates technical skills combined with cultural awareness, critical thinking, ethical reasoning, and managerial responsibility.

Discussion

The study sets out to gather, organize, and obtain a preliminary expert review of the competencies that business students considered relevant to cross-cultural AI prompting for future work in global management. The student NGT panels, cross-panel synthesis, and a limited expert content review produced a framework with five interconnected domains: Strategic Judgement, Cross-Cultural Competence, AI Prompting, Critical Evaluation, and Human-AI Collaboration. While the framework retains an explicitly instructional and preliminary scope, the discussion interprets it in relation to AI literacy, intercultural competence, and strategic decision-making.

From Prompt Technique to Managerial Competence

The AI prompting is presented by the CAIPCF as a component of a larger system of managerial competence. Templates, role assignment, formatting guidelines, and frequent phrase changes are the main components of many useful prompting strategies. Although these methods can make a request more understandable, they do not ensure that the user has recognized the correct managerial issue, considered the pertinent cultural context, verified the facts, or taken ownership of the choice. Effective prompting starts before an instruction is entered and continues after an output is delivered, as demonstrated by the five-domain structure. This perspective aligns with research that characterizes GenAI as a component of a broader organisational system influenced by human knowledge, judgment, and usage patterns (Feuerriegel et al., 2024).

By integrating GenAI interaction into an applied managerial decision-making process, the framework also expands AI literacy. In addition to creating prompts, future managers must comprehend organisational structures, look at different scenarios, spot cultural presumptions, confirm claims, uncover prejudice, and determine whether AI-generated advice is appropriate for use. The manager is still in charge of analyzing the results and reaching a decision, even though GenAI may organize data or recommend potential courses of action. According to a recent management study, users' ability to connect GenAI's capabilities with organisational needs and managerial thinking determines how valuable the technology is (Korzynski, Mazurek, Altmann, et al., 2023).

This procedure begins with the Strategic Judgment domain. The manager can better grasp how a problem relates to other organisational activities and stakeholders by using systems thinking. Comparing potential courses of action under various circumstances is supported by scenario evaluation. The manager can determine which problems, risks, and stakeholders need the most attention by using decision prioritization. These skills affect the manager's requests to GenAI and the appropriate use of the information that is produced. The quality

of human problem formulation and interpretation determines how much GenAI can contribute to managerial decision-making, according to recent data (Albashrawi, 2025).

Cross-Cultural Competence as a Quality-Control Mechanism

The inclusion of Cross-Cultural Competence as a distinct CAIPCF domain shows that cultural considerations should be addressed throughout the prompting process. Cultural Adaptability helps managers adjust their communication and behaviour when stakeholder expectations differ. Contextual Sensitivity helps them identify the cultural, organisational, and institutional information that should be included in a prompt. Intercultural Communication helps them assess whether an AI-generated message is respectful, understandable, and appropriate for its intended audience. Research in higher education similarly shows that intercultural competence supports communication and collaboration across different social, cultural, and institutional settings (Guillén-Yparrea & Ramírez-Montoya, 2023).

Cross-cultural competence therefore acts as a form of quality control rather than an additional interpersonal skill applied after an AI response has been generated. A grammatically correct message may still be inappropriate if it assumes that all stakeholders understand authority, disagreement, trust, time, or relationship-building in the same way. A manager who is culturally competent should be aware of these presumptions, look for additional information as necessary, and adjust the prompt or output appropriately. Cultural competency is developed through introspection, interpretation, and active interaction with diverse viewpoints, according to recent research on intercultural learning (Liu et al., 2023; Mitchell, 2023).

The framework also cautions against treating national cultural traits as fixed rules for prompting. National culture models can help users identify topics worth exploring, but they should not be used to predict the behaviour of every individual or organisation. Managers need to consider the many layers of context at play, including national, ethnic, linguistic, professional, organisational, generational, and personal influences. This approach aligns with current intercultural research, which treats competence as a context-sensitive process rather than a collection of facts about national groups (Mitchell, 2023).

Reflective Judgement and Responsible Human-AI Collaboration

AI-generated data and managerial action are linked by the Critical Evaluation domain. Before utilizing assertions, users must verify them with reliable sources. Users can see preconceptions, unequal representation, or presumptions that support a certain institutional or cultural viewpoint with the aid of bias recognition. When making a decision about whether to approve, amend, or reject an output, the management must take into account its applicability, constraints, and implications. These skills are crucial because, according to Farrokhnia et al. (2024), GenAI may generate information that seems persuasive even if it is erroneous, incomplete, or inappropriate for the circumstance.

To exercise reflective judgment, managers must also think about the potential consequences of implementing AI-generated advice. While ignoring sensitive stakeholders, confidentiality needs, cultural sensitivities, or longer-term organisational effects, a reaction may seem effective. Therefore, before acting, management must check the result with the evidence that is now accessible and professional experience. This supports the idea that GenAI should assist human decision-making rather than take the place of the decision-maker's ethical and contextual judgment (Albashrawi, 2025).

The approach is made more accountable by the Human-AI Collaboration domain. Collaborative Problem-Solving acknowledges that GenAI can assist users in investigating concepts, contrasting options, and questioning preconceived notions. Users must take stakeholder interests, fairness, confidentiality, and transparency into account to comply with ethical oversight. Managers must uphold accountability, identify when a task should remain under direct human management, and disclose AI involvement when appropriate to practice responsible AI use. Research on GenAI in education and management has raised similar concerns about overreliance, transparency, accountability, and the need for clear boundaries around appropriate use (Farrokhnia et al., 2024; Feuerriegel et al., 2024).

AI Prompting, Critical Evaluation, and Human-AI Collaboration have an iterative relationship. The manager may need to amend the prompt and evaluate the revised response if evaluation indicates prejudice, lacking

evidence, or poor contextual understanding. In certain circumstances, it could be better to speak with someone else, get more information, or refrain from utilizing GenAI for the task. Consistent with the emphasis on human judgement in GenAI-supported decision-making (Albashrawi, 2025), the CAIPCF treats human-AI collaboration as a regulated process in which technology offers possible insights and solutions while the human user retains judgement and accountability.

Contextual Contribution of the Multi-Panel Design

The CAIPCF's contribution and boundaries are also determined by the student-based development process. Students are in a good position to recognize the skills they need to acquire and to think about how the use of AI relates to their developing knowledge of global management. They are not stand-ins for managers in action. Although a diverse expert panel and the literature provide conceptual support for the framework's occupational relevance, neither a large employer sample nor observable workplace performance has been used to evaluate it. This distinction aligns with competency-development research, which views global leadership skills as context-dependent and developmental (Bird et al., 2010; Mendenhall et al., 2017). Therefore, rather than acting as a hiring guide or a final benchmark for managerial success, the framework should direct curricular development and additional research.

The multi-panel design lets the framework draw on perspectives from two different educational environments. The private-university cohort came from a multicultural learning setting, while the public-university cohort studied in a predominantly monocultural one. Neither environment was assumed to produce stronger competencies than the other. Running the panels separately meant each group could generate and rank its own ideas before these were brought together during cross-panel synthesis. This supported broader participation and made it less likely that one institutional setting would shape the framework on its own (Black et al., 2025). Including both settings also strengthens the educational relevance of the CAIPCF.

Students who mix regularly with international peers can draw on direct multicultural experience. Those in less internationally diverse settings may lean more on local cultural diversity, classroom cases, digital collaboration, or structured learning activities. Both kinds of experience matter for future global managers. Work on intercultural collaboration makes a similar point: competence can develop through many forms of interaction, reflection, and collaborative learning, not through international exposure alone (Guillén-Yparrea & Ramírez-Montoya, 2023). That said, the multi-panel design should not be read as evidence of causal differences between private- and public-university students, since the study did not test whether institutional type caused any such differences. Its purpose was to bring perspectives from different learning environments into the development of the CAIPCF. Future studies could examine whether students from different institutions, countries, or levels of international exposure interpret and apply the framework differently.

5. Implications for Business Education

The four curricular topics shown in Figure 1, such as Strategic Management, Global Business Strategy, International Business, and Cross-Cultural Management, can all incorporate the CAIPCF. Creating a single class that is solely focused on prompt creation is not the goal. Rather, genuine managerial activities that involve students in defining problems, taking cultural context into account, communicating with GenAI, verifying facts, and defending their conclusions should be used to practice the competencies. Instead of concentrating solely on technological access or efficiency, this method addresses current requests for GenAI education to foster critical and responsible use (Farrokhnia et al., 2024).

Table 6: Curriculum Applications of the CAIPCF

Course area	Illustrative learning task	Competencies emphasised	Assessment evidence
Strategic Management	Use GenAI to compare strategic options under competing stakeholder and resource constraints.	Systems thinking, scenario evaluation, decision prioritisation, fact verification	A decision memorandum containing the prompt sequence, evidence checks, comparison of alternatives, and reasoned final decision
Global	Develop and evaluate	Contextual framing, cultural	A scenario portfolio

Business Strategy	market-entry scenarios for culturally different markets.	adaptability, contextual sensitivity, bias recognition	identifying cultural assumptions, local evidence, risks, and revisions made to the AI-generated analysis
International Business	Prepare stakeholder communications and negotiation options for different institutional and cultural contexts.	Intercultural communication, prompt formulation, contextual sensitivity, reflective judgement	Adapted stakeholder communications accompanied by an explanation of the cultural, strategic, and ethical choices made
Cross-Cultural Management	Diagnose a multicultural team problem and revise AI-generated advice following peer feedback.	Collaborative problem-solving, iterative refinement, ethical oversight, responsible AI use	A team debrief, prompt iterations, evaluation of the AI response, accountability statement, and individual reflection

Assessment should take into account both the students' process and the quality of the final product. A polished AI-generated response should not receive a high grade unless the student shows clear problem framing, suitable cultural reasoning, credible verification, careful revision, and personal accountability. Prompt records can make the development process visible, while reflective notes may explain why a student accepted, changed, or rejected particular AI-generated suggestions. This approach reduces the risk that students are rewarded for producing fluent work without demonstrating understanding or judgement (Farrokhnia et al., 2024). The framework also supports more authentic forms of assessment. Students might be asked to compare AI-generated recommendations, identify missing cultural knowledge, check the evidence, revise prompts, and justify a managerial decision. These tasks allow instructors to assess students' reasoning rather than only the quality of the text GenAI produces. They also connect the use of AI to the ethical, intercultural, and strategic responsibilities students are likely to face at work (Korzynski, Mazurek, Altmann, et al., 2023).

Development of faculty members is equally crucial. In addition to having the intercultural facilitation skills necessary to handle conflict, stereotypes, and various communication styles, educators must possess adequate GenAI literacy to assess prompts and outputs. Additionally, they require precise guidelines about appropriate AI support, disclosure, privacy, academic integrity, and assessment design. According to recent research, responsible GenAI education calls on teachers to assist students in assessing the advantages and disadvantages of the technology, while culturally responsive learning necessitates intentional facilitation and reflection (Farrokhnia et al., 2024; Mitchell, 2023). It is possible to modify the NGT's structured participation principles for use in educational activities. Before a conversation, students can have time to formulate their opinions through silent idea generation. Round-robin sharing can guarantee that every member of the group participates. While group confirmation might motivate students to justify and explain their decisions, independent rating can lessen the immediate temptation to conform. When students assess AI-generated suggestions for intricate or culturally sensitive business issues, these techniques might be helpful (Black et al., 2025).

Limitations and Future Research

Several constraints should be kept in mind when interpreting the results. The student participants came from two organisational settings and were enrolled in either Intercultural Management or Global Management. Total population sampling ensured full coverage of the reachable course groups, but the findings may not extend to students from other fields, institutions, countries, or stages of study. More fundamentally, these participants were not practising global managers and did not bring substantial international managerial experience. Their perspectives are well suited to identifying competencies that matter in education and those that employers expect. They cannot, on their own, determine the full range of competency requirements for the profession. The expert panel adds a practical and scholarly viewpoint, yet it does not remove this limitation. Future studies should involve practising managers, employers, global business experts, and students drawn from a wider range of programmes and settings.

A second constraint concerns the depth of insight that NGT can produce. Rather than generating the in-depth

personal stories typically gathered through individual interviews, NGT was chosen to develop, clarify, and prioritise competencies. Panelists were able to complete the planned NGT phases within each roughly 30-minute online session, but there was little room for extended discussion. The study therefore offers a framework-level account of the required competencies rather than a detailed picture of how students actually experience each one. Future research could explore how students understand and apply the CAIPCF in specific learning contexts, using focus groups, interviews, classroom observations, or reflective diaries.

A third constraint relates to the analytical process. The initial coding, competency consolidation, and thematic development were carried out by a single researcher. Transparency and traceability were strengthened through the audit trail, comparison with the original panel statements, participant confirmation of panel rankings, cross-panel synthesis, and expert content review. These safeguards do not, however, provide independent recoding, and they cannot remove interpretive influence. No intercoder reliability statistic was calculated. The analysis should therefore be read as a transparent single-researcher synthesis rather than as independently replicated coding. Future studies could involve a second analyst to review the coding map and discuss alternative interpretations, with the analytic purpose made explicit. Where it suits the chosen coding approach, agreement statistics may also be considered.

A fourth constraint concerns the scope of expert validation. The expert panel comprised eight members who reviewed the preliminary framework in a single 30-minute online session. The session offered a bounded content review of the five domains and 15 competencies, not prolonged item-by-item deliberation or a multi-round consensus process. All 15 competencies were retained, and the available records do not allow competency-specific examples of rejection or substantial modification to be reported. This limits the strength and auditability of the validation claim. Future validation should retain item-level decision logs and expert comments. It could also use a longer workshop or a multi-round Delphi process with a more internationally diverse panel.

A fifth point concerns how the CAIPCF should be understood. The framework developed in this study is a competency framework, not a measurement tool with psychometric validation. The NGT and expert-validation procedures did not test construct validity, dependability, or predictive validity, though they did demonstrate the relevance, clarity, and conceptual organisation of the competencies. Future work should develop measurable indicators and questionnaire items for each competency. The framework's dimensionality, internal consistency, convergent validity, discriminant validity, and predictive value could then be examined using a larger multi-institutional sample.

A further limitation lies in the comparison between the two settings. The contrast between the multicultural private-university environment and the predominantly monocultural public-university one was contextual rather than causal. The study did not examine whether differences in competency development were caused by institutional type or by the level of exposure to other countries. Future research could compare students from different universities and examine the influence of cultural diversity, academic discipline, language background, international exposure, and prior experience with GenAI.

Finally, there is scope for longer-term and more comparative work. Longitudinal studies could follow students across several semesters to see how their competencies develop with repeated practice. Experimental studies could compare conventional prompt instruction with instruction based on the CAIPCF. Student work could be assessed using indicators of strategic quality, cultural appropriateness, factual reliability, bias recognition, ethical reasoning, and human accountability. To support methodological transparency and allow other researchers to examine how the competencies were formed, future studies should also retain de-identified panel rankings, coding data, and records of framework changes.

Conclusion

This study used six student NGT panels, a cross-panel synthesis, and an eight-person multidisciplinary expert panel to develop the Cross-Cultural AI Prompting Competency Framework. In Phase One, fifty-three undergraduate business students from two institutional settings took part. Their ideas, discussions, and rankings were combined to produce a draft framework. In Phase Two, experts in strategic management, international business, management education, international industry, and GenAI assessed the competencies,

defined them, identified overlap or omissions, and confirmed their educational value. The final CAIPCF consists of five interconnected domains and fifteen competencies. Strategic judgement brings together systems thinking, scenario analysis, and decision prioritization. Cross-cultural competence covers cultural adaptability, intercultural communication, and contextual sensitivity. AI prompting includes contextual framing, iterative refinement, and prompt formulation. Critical evaluation involves fact verification, bias recognition, and reflective judgement. Human-AI collaboration draws on collaborative problem-solving, ethical oversight, and responsible AI use.

The approach shows that effective AI prompting for global management requires more than writing clear instructions for an AI system. Future global managers must describe the managerial problem, understand the wider system, recognise cultural and institutional context, and communicate that context through the prompt. They must also assess whether the response is accurate and acceptable and remain accountable for the final decision. The five domains should therefore be seen as interconnected parts of a continuous process, not as a hierarchy in which one domain matters more than the others.

The CAIPCF offers a formal framework for incorporating GenAI into Strategic Management, Global Business Strategy, International Business, and Cross-Cultural Management. Business programmes should introduce the five domains gradually across relevant courses, rather than limiting GenAI development to a single workshop or technical session. Students need repeated opportunities to apply GenAI to real managerial problems involving global markets, multicultural teams, stakeholder communication, negotiation, and strategic decision-making.

Assessment should examine both the student's process and the final product. Students should document their prompts, describe the cultural and managerial background, verify key claims, identify potential bias, reflect on revisions, and explain how they retained responsibility for the final decision. This allows instructors to assess strategic, cultural, and ethical judgement rather than rewarding polished AI-generated text.

Cross-cultural learning should not reduce culture to national scores or fixed traits. Instead, students should weigh national, organisational, professional, linguistic, generational, and individual factors together. Institutions can support curriculum development by providing faculty expertise and clear procedures for ethical oversight, privacy, disclosure, academic integrity, and responsible AI use.

The CAIPCF offers an initial educational framework for preparing business students to work responsibly with GenAI in culturally varied managerial settings. It is not yet intended as an occupational standard. Further empirical validation is needed with practising managers, companies, and larger, more diverse student populations. Even so, the framework provides a systematic foundation for linking technical prompting skills to strategic judgement, cultural awareness, critical appraisal, ethical reasoning, and human accountability.

Declaration of Generative AI Assistance: Generative AI was utilized to assist with language editing, structural revision, descriptive data calculation, and document formatting. The writers are still responsible for validating the analysis, citations, interpretation, originality, and final submitted paper. Generative AI is not identified as an author or cited as a source.

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