

Boosting Teaching Quality: The Influence of Cultural Intelligence and Sharing Intentions on Knowledge Sharing by International Faculty

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Abstract	Article Info
In the current era of global competition and interconnectedness, the global education system has become increasingly competitive, prompting universities worldwide to strive for improved rankings and reputations. However, Heilongjiang University, China, faces significant challenges, including the scarcity of "Double First-class" universities and a minimal presence in the top 1000 of the QS World University Rankings. Although international faculty members are recognized as having the potential to enrich research capacities and modernize teaching methodologies through knowledge sharing, more attention should be paid to the specific factors that affect the knowledge-sharing behavior and its contributions on local teaching quality. Therefore, the research investigates how cultural intelligence and the intention to share knowledge among international faculty influence their knowledge-sharing behaviours and how these behaviours, in turn, affect local faculty's teaching quality. Quantitative data will be gathered via surveys conducted with local faculty members at various universities in Heilongjiang. Statistical analysis will be performed using AMOS structural equation modeling to explore the relationships between these variables. The research indicates that individuals with higher cultural intelligence tend to engage more in knowledge-sharing activities. Additionally, there is a strong link between international faculty members' intention to share knowledge and their actual knowledge-sharing behaviors. Crucially, the knowledge shared by international faculty members has a positive effect on the quality of teaching among local faculty. Findings from this research offer practical insights for university administrators and policymakers to develop strategies that encourage knowledge sharing and enhance teaching quality overall.	Keywords: Cultural Intelligence; Intention ; Knowledge Sharing; Teaching quality; International Faculty Members.

INTRODUCTION

In educational globalization, global university rankings have emerged as significant benchmarks for assessing the quality of higher education institutions. These rankings, which are highly regarded by educational entities worldwide, measure institutional prowess (Hazelkorn, 2011; Uslu, 2020). The internationalization of universities, recruiting international faculty and students, along with promoting international collaborations, is crucial for improving the institution's reputation and expanding its research capabilities (Uslu, 2020). The presence of international faculty is particularly influential in elevating higher education institutions' global standing and strengthening their local research capabilities (Djikhy & Moustaghfir, 2019). Kuzhabekova and Lee (2018) highlighted the substantial role that international faculty play in advancing research capabilities by enriching the local knowledge base, enhancing the relevance and reach of research outputs, and integrating the institution into global research networks. These international faculty members have a pronounced impact on universities and colleges in China, introducing a variety of academic traditions and global perspectives to the Chinese academic environment. This diversity significantly boosts the quality of education and research within Chinese HEIs (Gao & Wu, 2019). Further research is necessary to examine the impact of international faculty members' knowledge-sharing activities on the teaching quality of local faculty members in Chinese universities. Thus, this study's main goal is to close this research gap by determining the variables that affect international faculty members' knowledge sharing and evaluating the effect that this has on local faculty members' instructional quality.

LITERATURE REVIEW

2.1 Overview of International Faculty

International faculty members can be categorized into four main groups: those holding positions at top-tier research universities in countries such as Australia, Canada, and the United States; those employed by mid-tier or upper-tier universities in specific countries including Switzerland, Hong Kong, and Singapore; those serving in countries experiencing a shortage of local faculty, such as Saudi Arabia and other Gulf nations; and those who have migrated and obtained citizenship in a new country. Additionally, a group of academics pursued their doctoral studies abroad and continued their academic careers in those countries. International faculty exist in virtually every country worldwide (Yudkevich, 2016).

The increasing movement of international faculty members in recent years underscores the continuing globalization and internationalization within universities worldwide. Since the medieval era, scholars have travelled across borders extensively to engage in academic pursuits. This trend has significantly intensified in the modern, interconnected world, driven by factors like knowledge exchange, collaborative research projects, and the incorporation of diverse perspectives within academic settings (Altbach et al., 2010).

The inclusion of international faculty not only boosts the global stature and competitiveness of universities but also serves as a catalyst for transformative academic innovation. Their presence draws elite talent, enhances research output, and fosters academic excellence. It paves the way for pioneering discoveries and advancements across multiple disciplines through the exchange of ideas and interdisciplinary collaboration. The increased mobility of international faculty mirrors the changing dynamics of higher education in a globally connected world, where collaboration, diversity, and cross-cultural exchange are key to driving academic innovation and progress (Selmer et al., 2017).

While significant attention has been given to studying international faculty, with some notable successes, there has been a glaring oversight in not fully leveraging this group as a vital human resource pool. In reality, international faculty are not just enhancing the capabilities of local staff, but they also hold the potential to revolutionize academic environments. As a result, there is a growing demand for additional research on the exchange of information between local teachers and international academics (Aldaheri et al., 2022).

2.2 Knowledge sharing between academic institutions

Institutions of higher learning are essential for producing new information via research, transferring knowledge through consulting, and spreading knowledge through teaching and learning. Additionally, they help to

popularise science, foster cooperation between industry and research, effectively convey research findings, and support the creation of jobs through entrepreneurial endeavours (Fullwood et al., 2013; Alexandropoulou et al., 2009; Veer et al., 2017).

Employee knowledge sharing within an organisation can enhance the application of current information and promote the creation of new knowledge (Choi et al., 2008). Engaging in knowledge-sharing activities helps apply knowledge practically, drives innovation, and gives the organization a sustainable competitive advantage (Goswami & Agrawal, 2018). Additionally, it provides several organizational benefits, such as enhanced organizational learning, increased creativity and innovation, improved performance at both individual and organizational levels, and stronger problem-solving skills (Muqadas et al., 2017).

Al-Kurdi et al. (2018) have significantly advanced the area by offering an extensive analysis of the literature on knowledge sharing in higher education institutions. Their research indicates areas for future study, including organisational, cultural, technological and behavioural elements, and shows how behind the industry is in comparison to others. This systematic review also identifies key obstacles like time constraints and lack of trust culture that hinder effective knowledge sharing, setting the stage for further exploration in this area.

Subsequent research has focused on four knowledge-sharing perspectives: technological, organizational, individual, and cultural. Technologically, studies such as that by Chatterjee et al. (2022) have explored how tools like social media facilitate knowledge sharing, emphasizing the need for further research into how different platforms and cultural contexts influence knowledge exchange behaviours.

The significance of organisational culture in shaping knowledge-sharing practices and intellectual capital is highlighted by research conducted by Islamy et al. (2020). Their findings suggest that a supportive culture enhances the knowledge-sharing environment and positively impacts organizational performance. This highlights the importance of fostering a culture that encourages and supports knowledge sharing within HEIs. The study by Chedid et al. (2022) delves into the personal factors that influence knowledge sharing within HEIs. Their research investigates factors such as motivation and network-building, indicating that internal drive and relationships are key to promoting a positive disposition towards sharing knowledge. This highlights the significance of personal attitudes and actions in the process of sharing knowledge.

Culturally, research such as Al Qatamin and Al Hawamdeh and (2021) has assessed the role of cultural dimensions in shaping knowledge-sharing intentions in Jordanian HEIs, finding that cultural values significantly influence knowledge-sharing behaviors. This study emphasizes how crucial it is to comprehend and take into account cultural variables when creating knowledge-sharing plans for various situations.

Overall, while progress has been made in understanding knowledge-sharing dynamics in HEIs, these studies collectively indicate ongoing challenges and diverse opportunities for enhancing the effectiveness of knowledge-sharing strategies across different dimensions within the educational sector.

3. Theoretical Framework and Hypotheses

3.1 Theoretical Underpinnings

The theoretical basis of this study is based on two important theories: the Theory of Planned Behaviour (TPB) and Cultural Intelligence (CQ). According to Earley and Ang's (2003) conceptualization, cultural intelligence is essential to comprehending a person's capacity to work well across national, ethnic, and organisational cultures. This capacity includes a range of abilities that allow a person to comprehend strange behaviours and fit in with various cultural contexts.

According to Ajzen's (1991) Theory of Planned Behaviour, an individual's behaviour is shaped by their behavioural intention, which is based on their attitudes, perceived behavioural control, and subjective norms. 'Sharing Intentions' is defined in this study as the behavioural intentions inside TPB, with particular emphasis on the intention to participate in information sharing.

This integration of CQ and TPB provides a comprehensive framework for understanding how cultural adaptability and behavioural intentions contribute to effective knowledge sharing in academic settings, particularly between international and local faculty members in higher education institutions.

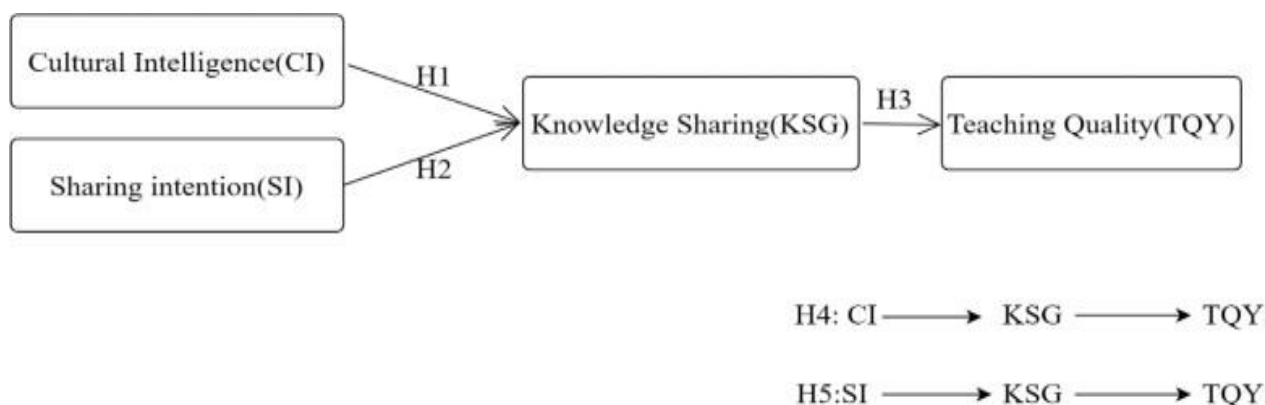


Figure 1: Conceptual Framework

3.2 Hypotheses Development

The study has formulated five hypotheses from the proposed conceptual framework to accomplish its research objectives. These hypotheses seek to investigate the direct impacts of intention and Cultural Intelligence (CUL) on foreign faculty members' knowledge exchange. The study also looks at how local teaching quality is affected by foreign faculty members sharing their knowledge. The following hypotheses have been developed based on the theoretical fusion of the Theory of Planned Behaviour and Cultural Intelligence:

3.2.1 The Linkage between cultural intelligence and knowledge sharing

According to research conducted in 2017 by Collins and colleagues, cultural intelligence can improve the exchange of knowledge between individuals or groups. It can be hypothesised that there is a positive association between cultural intelligence and information sharing based on previous research and the theory of cultural intelligence. The first hypothesis is formulated in order to investigate this link. H1: Cultural Intelligence positively influences Knowledge Sharing.

3.2.2 The Linkage between sharing intention and knowledge sharing

Ajzen (1991a) emphasises that behavioural intention is crucial in analysing actual behaviour in accordance with the Theory of Planned Behaviour (TPB). It is well-established that knowledge-sharing behaviour is greatly influenced by intention. According to Ajzen, the likelihood that someone will carry out a particular behaviour is directly impacted by how strongly they intend to do so. This hypothesis states that foreign faculty members are more likely to engage in sharing behaviours if they have a stronger intention to share their knowledge, which is consistent with the Theory of Planned Behaviour.

H2: International faculty members' knowledge sharing is positively impacted by intention.

3.2.3 The Linkage between knowledge sharing and the teaching quality of local faculty members.

A study by Asbari et al. (2019) found that teachers' ability to innovate is much increased when they share explicit and tacit information. Additionally, a number of studies have demonstrated that knowledge sharing enhances performance and innovation at all levels—individual, team and organisations. Therefore, the purpose of this study is to ascertain how information sharing and instructional quality relate to each other in higher education. The following hypothesis is put forth:

H3: Knowledge sharing of international faculty positively affects the teaching quality of local faculty members.

3.2.4 Mediating effect of knowledge sharing

Many research have examined the mediating effect of knowledge sharing. Akram et al. (2020), for example, discovered that in the Chinese telecommunications sector, knowledge sharing plays a critical role as a mediator between employees' innovative work behaviour and organisational fairness. The findings demonstrate how important knowledge-sharing methods are in figuring out how organisational justice influences workers' creativity in this industry. The current study makes the assumption that knowledge sharing mediates the linkages between cultural intelligence, intention, and local faculty members' quality of teaching based on a wealth of literature. Thus, this study proposes the following two hypotheses based on this reasoning:

H4: The relationship between cultural intelligence and the teaching quality of local faculty members is mediated by knowledge sharing.

H5: The relationship between local faculty members' Intention and teaching quality is mediated by knowledge sharing.

4. Methodology

4.1 Research design

The impact of international faculty members' knowledge sharing on local faculty members' teaching quality is investigated in detail using a quantitative research technique. In order to carefully measure and analyse the correlations among different factors and provide a thorough understanding of how these variables interact, the

quantitative approach is adopted. Data were gathered using a survey questionnaire, with scales adapted from Ang (2007) and Bock (2005).

The study focuses on local faculty members who interact with international faculty members at universities in Heilongjiang Province, China. The purpose of the questionnaire is to get information from these local faculty members regarding cultural intelligence, sharing intentions, and knowledge sharing. A five-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree), is used to record responses. This makes it easier to quantify data and improves the accuracy of the analysis.

For this study, a sample size of 250 local faculty members was carefully chosen because it was thought that this number would adequately represent the opinions and characteristics of the target population. The survey was carefully distributed to these faculty members in the area using a purposive sample technique, which allowed for the collection of their opinions and feedback.

4.2 Data collection and analysis techniques

This study employs self-administered questionnaires distributed through the widely-used China Wenjuanxing platform, leveraging electronic dissemination to ensure an efficient collection process and enable quick, extensive input from the targeted local teachers. This study uses structural equation modelling (SEM) and AMOS (processing of Moment Structures) software for data processing. SEM is an advanced multivariate analytic method that is ideal for more complex research since it concurrently looks at the correlations between latent and observable variables. This approach is particularly apt for unravelling the complex interactions among cultural intelligence, sharing intention, and knowledge sharing, thereby aligning perfectly with the objectives of this research.

5. Results

5.1 Confirmatory Factor Analysis

By creating a measurement model that outlines the relationships between these latent variables and their observable indicators, confirmatory factor analysis (CFA) is a statistical technique used to evaluate latent variables (Roos & Bauldry, 2021). Confirmatory Factor study (CFA) uses two main approaches to evaluate the applicability of the measurement model: a fit index evaluation and a validity and reliability study of the model. For this assessment, goodness-of-fit indices including the RMSEA, CMIN/DF, and Goodness-of-Fit Index are used. Certain benchmarks for important indices, such as a Chi-square/df ratio below 3, a GFI (Goodness of Fit Index) above 0.9, a CFI (Comparative Fit Index) above 0.9, and an RMSEA (Root Mean Square Error of Approximation) below 0.08, can be used to evaluate an acceptable model fit. As shown in Table 1, these standards are suggested by Hair et al. (2010) and backed by Thakkar (2020) and Nye (2022).

Model of fit indices	Key concerns	Cutoff value
Absolute fit indices	Model chi-square (χ^2)	Insignificant result ($p > 0.05$)
	χ^2/df	Value of <3.0
	RMSEA	Value between 0.08 and 0.10 (mediocre fit), <0.08 (good fit)
	GFI	Value >0.90 or >0.95 (use 0.95 if factor loading and number of sample are low)
	AGFI	Value of >0.80
	RMR	N/A
Incremental fit indices	SRMAR	Value of <0.05
	NFI	Value of >0.90
	NNFI	Value of >0.80
	CFI	Value of ≥ 0.90
Parsimony fit indices	PGFI	Value of >0.90
	PNFI	Value of >0.90

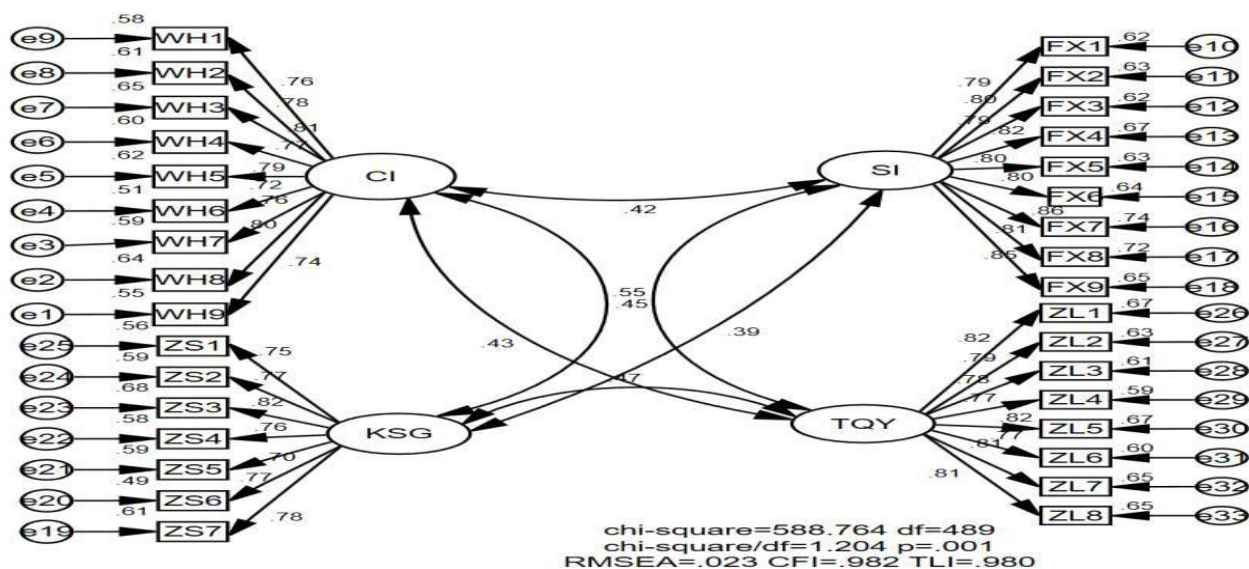
Table 1: Fit indices' classification and cutoff value
Source: Thakkar (2020)

This study adopts the fit indices and criteria listed in Table 2 for evaluation. The results reveal that all model fitting outcomes conform to the established standards, indicating that the model fit is satisfactory.

Table 2: The Fitness Indexes for Overall Measurement Model

Goodness of fit statistics	Actual value	Preferred value	Conclusion
χ^2/df	1.204	Value of <3.0	Achieved
RMSEA	0.023	Value of <0.08	Achieved
TLI	0.98	Value of ≥ 0.90	Achieved
CFI	0.982	Value of >0.90	Achieved

Figure 2 : Measurement Model



Source : AMOS output drawn by the author

5.2 Overall Measurement Model's Convergent Validity, Construct Reliability and Discriminant Validity
 Convergent validity among item measurements can be evaluated using a variety of techniques. One critical approach is to evaluate factor loadings, which should be statistically significant and preferably greater than 0.7 to indicate a strong correlation with the respective construct. Additionally, an AVE score above 0.5 is regarded as appropriate for proving convergent validity. The Average Variance Extracted (AVE) assesses the amount of variance that a latent factor shares with its indicators rather than the variance attributable to measurement error. Furthermore, reliability assessments, especially Construct Reliability (CR), are crucial. A CR value above 0.7 indicates high internal consistency, confirming that the latent construct is consistently represented across different measures (Hair, 2019).

As can be seen from Table 3 of the study, all factors have Average Variance Extracted (AVE) values greater than 0.5 and Construct Reliability (CR) values greater than 0.7. This suggests that convergent validity has been successfully established.

Table 3: AVE and CR values for the Overall Measurement Model.

Construct	Items	Factor loading	AVE	CR
CI	WH1	0.76	0.59	0.92
	WH2	0.78		
	WH3	0.81		
	WH4	0.77		
	WH5	0.79		
	WH6	0.72		
	WH7	0.77		
	WH8	0.80		
	WH9	0.74		
SI	FX1	0.79	0.65	0.94
	FX2	0.80		
	FX3	0.79		
	FX4	0.82		
	FX5	0.80		
	FX6	0.80		
	FX7	0.86		
	FX8	0.85		
	FX9	0.81		
KSG	ZS1	0.75	0.58	0.90
	ZS2	0.77		
	ZS3	0.83		
	ZS4	0.76		
	ZS5	0.77		
	ZS6	0.70		
	ZS7	0.78		
TQY	ZL1	0.82	0.63	0.93
	ZL2	0.80		
	ZL3	0.78		
	ZL4	0.77		
	ZL5	0.82		
	ZL6	0.77		
	ZL7	0.81		
	ZL8	0.81		

According to Fornell et al. (1981), a factor has strong discriminant validity if the correlation coefficients between it and other factors are less than the square root of its AVE values. Strong discriminant validity is confirmed by Table 4, where the square roots of the AVE values for all four factors in this scale are greater than the correlation coefficients between each factor and the others.

Table 4: Discriminant Validity Index Summary for Measurement Model.

	KSG	SI	CI	TQY
KSG	0.76			
SI	0.39	0.81		
CI	0.45	0.42	0.77	
TQY	0.47	0.55	0.43	0.79

Source : AMOS output drawn by the author

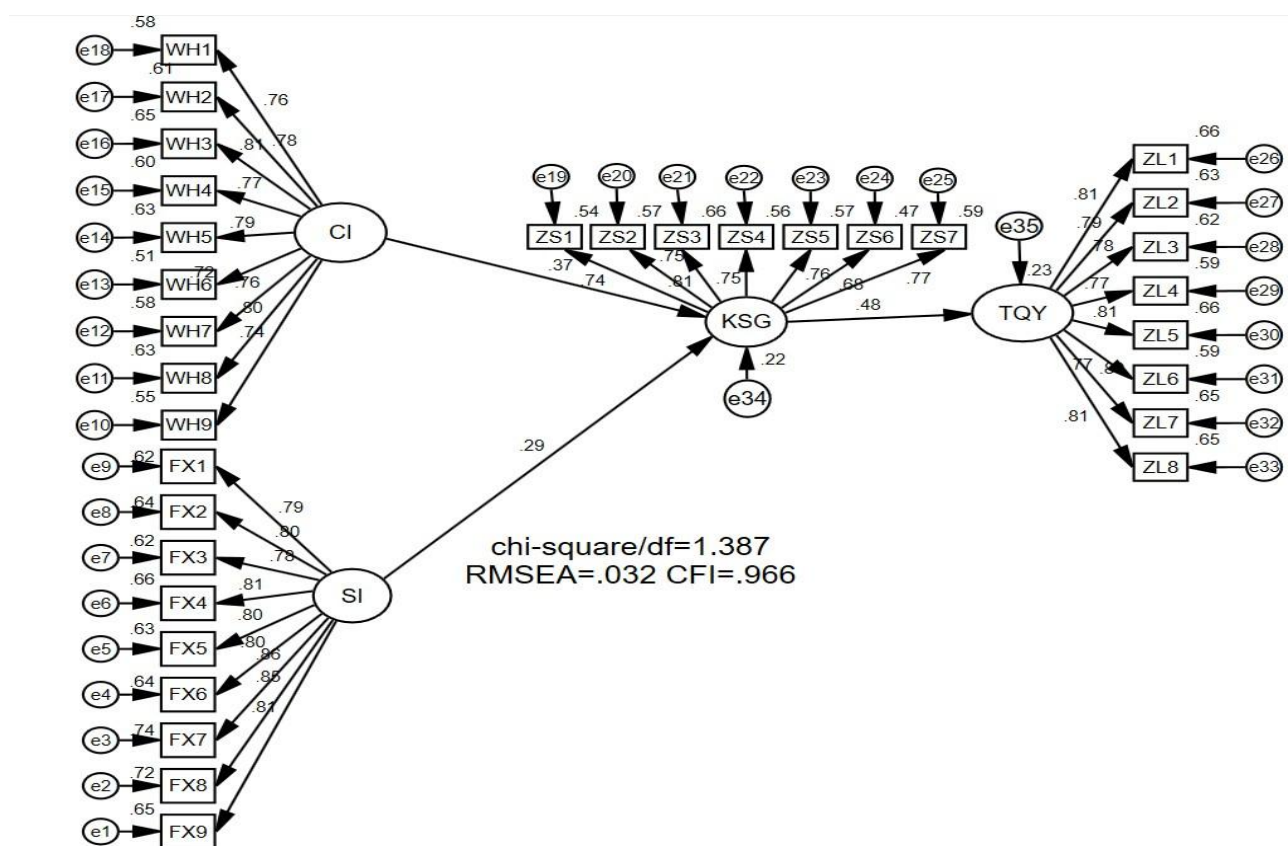
5.3 Hypotheses Testing

The research hypothesis was evaluated through structural equation modeling (SEM), aimed at hypothesis testing and validation. A summary of the conclusions regarding the hypothesized relationships among all constructs is presented in Table 5.

Marcoulides (1998) suggested that C.R value should surpass 1.96 at a significance level of 0.05, and the beta value (standard regression estimate) should be greater than 0.2. Based on these criteria, conclusions were drawn from the results of the path analysis.

through a structural equation model (depicted in Figure 3), all hypotheses (H1, H2, H3) are confirmed, as they have P values below 0.05. As anticipated, the results indicate a positive correlation among cultural intelligence, knowledge sharing intention, and actual knowledge sharing, as well as between knowledge sharing and the teaching quality of local faculty members.

Figure 3: Structural Equation Model Path Analysis



Source: AMOS Output Drawn by the Author

Table 5: Path Analysis

Hypotheses	Path	Estimate	S.E.	C.R.	P-value	Standardized Regression Weights(β)	Test results
H1	KSG <--- CI	0.354	0.066	5.323	***	0.368	Supported
H2	KSG <--- SI	0.238	0.054	4.421	***	0.289	Supported
H3	TQY <--- KSG	0.583	0.087	6.71	***	0.477	Supported

Source: AMOS Output Drawn by the Author

5.4 Mediating Effects

Using the Bootstrap method in AMOS over 1000 iterations, Bias Corrected and Percentile values were calculated at a 95% confidence interval. As detailed in Table 6, the mediating effect for the CI KSG TQY relationship is quantified at 0.184, with the 95% Confidence Interval bounds not encompassing zero, thereby substantiating the effect's validity. Similarly, the mediating effect for the SI KSG TQY relationship is reported at 0.12, with the 95% Confidence Interval bounds also excluding zero, which further confirms the validity of this mediating effect.

Table 6: Bootstrapping Results for Mediation Effect

Path relationship	Point estimate	Bootstrapping 1000 times 95% CI				P	Result	Comment
		bias-corrected		percentile				
		Lower	Upper	Lower	Upper			
CI→KSG→TQY	0.184	0.101	0.306	0.089	0.294	0.001	Accepted	Significant
SI→KSG→TQY	0.12	0.066	0.219	0.066	0.219	0.001	Accepted	Significant

CONCLUSION

This study looks into the variables that determine international faculty members' knowledge sharing and how those variables impact local faculty members' instruction. The study blends several ideas and models on knowledge sharing and effective teaching, drawing on the Cultural Intelligence and the Theory of Planned Behaviour.

The findings from this study are not only significant but also highly relevant, as they confirm all hypothesized relationships, highlighting cultural intelligence and sharing intentions influence on both knowledge sharing and the teaching quality of local faculty members. There is a high positive association between cultural intelligence and knowledge sharing behaviours of international faculty members, as proven by the evaluation of the measuring model and hypothesis testing. This strong backing for earlier research by Tett et al. (2013) and Stoermer et al. (2021) emphasizes the significance of cultural intelligence (CQ) in information exchange even further. According to the findings, people who possess higher levels of cultural intelligence are adept at navigating a variety of cultural contexts and building strong interpersonal bonds with coworkers from various backgrounds. As a result, they are more likely to share knowledge and foster better collaboration and learning in multicultural settings.

Furthermore, among international faculty members, a strong association was found between their intention to share knowledge and their actual knowledge-sharing behaviours. This correlation confirms results from previous research (Jolaei et al., 2014; Shekh Zain et al., 2019) showing that people who are more inclined to share their knowledge also tend to engage in knowledge-sharing activities more actively.

This research also shows that knowledge sharing by international faculty positively impacts the teaching quality of local faculty members. Specifically, interactions with international faculty help enhance local teachers' research skills and deepen their understanding of research methodologies, teaching resources, and techniques, corroborating prior research in the field.

Furthermore, the study's most compelling finding is that knowledge sharing is a powerful mediator between cultural intelligence, intention, and local teaching quality. This finding underscores the transformative potential of international faculty members engaging in knowledge-sharing activities, significantly enhancing the teaching quality of local faculty members. It draws attention to how important it is to promote knowledge sharing in academic settings since it is a major factor in progress.

7. Implications

The outcomes of this study have a profound impact on the global education landscape, particularly in the realm of international collaborations and partnerships. By illuminating the instrumental role of international faculty

in enhancing local teaching quality, universities can leverage these insights to bolster collaborations, exchange programs, and joint research initiatives. These initiatives not only enrich the academic experience for faculty but also enhance the reputation and global standing of the institutions involved, fostering a sense of pride and optimism for the future.

Additionally, this research offers valuable perspectives for policymakers and regulators aiming to improve educational outcomes and teaching quality in both domestic and international settings. By comprehending the impact of international faculty members' knowledge sharing on local teaching quality, policymakers can develop education strategies emphasizing building a skilled and globally competitive teaching workforce.

8. Original Contributions

The innovation of this paper lies in its development of a pioneering model that focuses on the knowledge sharing of international faculty members, providing a novel analytical framework for future quantitative research to explore the complex dynamics between international faculty and local educational improvements. Additionally, the study introduces a standardized questionnaire tool designed to consistently assess the impact of knowledge sharing across different educational settings, thereby enhancing methodological approaches in academic research. On a practical level, the research offers strategic directions for improving recruitment and support mechanisms for international faculty in universities, emphasizing the importance of cultivating cultural intelligence to foster a more inclusive and collaborative academic environment.

7. Limitations and Future Suggestions

While comprehensive in its literature review, this thesis has some limitations. It primarily focuses on two selected factors influencing knowledge sharing by international faculty members, potentially overlooking other relevant factors. Additionally, the findings primarily apply to state-funded universities, which may limit their generalizability across different academic environments, particularly private universities.

Future studies should consider several enhancements to address its limitations. Expanding the range of factors studied to include more comprehensive elements influencing knowledge sharing by international faculty is crucial. Broadening the research scope to include diverse educational environments such as private universities and potentially non-academic settings would enhance the generalizability of findings. Lastly, by offering a more comprehensive worldwide viewpoint on faculty interactions and knowledge sharing, cross-cultural comparative research may contribute to a deeper understanding of how cultural variations affect knowledge sharing.

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