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Cultural intelligence and employee innovation performance in foreign trade companies: The role of innovative work behavior

Xin-Liufang[1*], Abang Azlan Mohamad[2], May-Chiun Lo[3]
[1,2,3]Faculty of Econmics and Business, Universiti Malaysia Sarawak, Malaysia; xinliufang5@gmail.com (X.L.) maazlan@unimas.my (A.A.M.) mclo@feb.unimas.my (M.C.).
[1]School of International Business, Anhui International Studies University, China.

Abstract: As globalization intensifies, employees' ability to navigate diverse cultural contexts becomes increasingly critical for fostering innovation in international trade. This study examines how cultural intelligence (CQ), which encompasses cognitive, metacognitive, motivational, and behavioral dimensions, enhances employee innovation performance (EIP) through innovative work behavior (IWB). Using data from 316 employees in Chinese foreign trade firms, structural equation modeling revealed that all CQ dimensions positively influence IWB, which fully mediates their impact on EIP. The study's population includes Chinese foreign trade companies operating in six eastern provinces: Shandong, Jiangsu, Shanghai, Zhejiang, Fujian, and Guangdong. Partial least squares structural equation modeling (PLS-SEM) was selected for its robustness in handling complex models with small to moderate sample sizes, as well as its ability to prioritize prediction over theory testing [1]. Participants, recruited from these six eastern Chinese provinces, were chosen due to their economic significance and cultural diversity. The quantitative analysis confirms significant relationships between CQ, IWB, and innovation outcomes, providing a robust framework for managers. By fostering cultural intelligence and innovative behaviors, organizations can effectively leverage their diverse workforce, establishing a sustainable competitive advantage in the global marketplace. These implications are especially relevant in foreign trade contexts, where adaptive and innovative approaches are essential for success. The findings underscore the necessity of fostering CQ to drive innovation in multicultural workplaces. The study advances the theoretical understanding of cross-cultural innovation dynamics and offers actionable strategies for managers in globalized industries.

Keywords: *Cross-cultural management, Cultural intelligence, Employee innovation performance, Foreign trade, Innovative work behavior.*

1. Introduction

In today's globalized business environment, organizations operate in culturally diverse settings, which require employees to effectively navigate and collaborate with individuals from different cultural backgrounds. Cultural intelligence (CQ) is a crucial competency for individuals and organizations to succeed in today's context. It encompasses the ability to understand, appreciate, and adapt to different cultural norms and behaviors. At the same time, employee innovation performance refers to the behavioral process of employees in continuously sharing and transferring knowledge to gain a competitive advantage and maintain core competitiveness. Innovative work behavior (IWB), defined as proactive and intentional behavior aimed at fostering innovation within the organization, plays a critical role in enhancing this innovation performance [2]. While both CQ and IWB have been recognized as important factors in organizational success, the relationship between these concepts has not been thoroughly investigated. CQ consists of four CQ dimensions: metacognitive, cognitive, motivational, and behavioral. Although it may not be conclusively known which dimensions of cultural intelligence

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* Correspondence: xinliufang5@gmail.com

(CQ) are salient, its impact on attitudinal or behavioral outcomes in multicultural interaction settings seems undeniable [3]. Therefore, this study aims to investigate the relationship between CQ and employee innovation performance, as well as the mediating role of IWB in this relationship. Building on previous research that shows how CQ enhances job performance, cross-cultural adaptability, and communication effectiveness [4] this study proposes that individuals with higher levels of CQ will exhibit greater capabilities to engage in innovative work behaviors. By appreciating and understanding diverse cultural perspectives, individuals with higher CQ are more likely to think divergently and generate creative solutions. The role of IWB in the relationship between CQ and employee innovation performance suggests that individuals' willingness and ability to engage in innovative work behaviors may act as a mechanism through which CQ influences innovation outcomes. Cultural intelligence (CQ) positively impacts cultural judgment and decision-making, cultural adaptation, and task performance in diverse settings. Individuals with higher CQ may be better positioned to drive innovation by proactively identifying opportunities, generating and sharing creative ideas, and implementing and refining these ideas. By explaining the role of cultural intelligence (CQ) in enhancing employee innovation performance and the mediating role of innovative work behavior (IWB), organizations can gain insights into how to leverage the cultural intelligence of their employees to foster innovation. Despite the increasing emphasis on innovation as a crucial driver of competitive advantage in today's global marketplace, many organizations, particularly those in the foreign trade sector, struggle to effectively leverage the cultural intelligence (CQ) of their diverse workforces to enhance employee innovation performance. Research indicates that cultural intelligence can significantly influence an individual's ability to engage in innovative work behavior (IWB), which is essential for generating creative ideas and implementing them successfully.

While cultural intelligence (CQ) and innovative work behavior (IWB) are recognized as critical for organizational success, their interconnectedness remains underexplored, particularly in foreign trade contexts. Recent studies highlight CQ's role in enhancing creativity [5] and IWB's mediating effects in cross-cultural settings [6] yet no framework integrates these constructs to explain innovation performance. This gap is critical for foreign trade firms, where cultural adaptability and innovation are pivotal yet under-leveraged. Our study addresses this by investigating how CQ dimensions drive IWB and, subsequently, EIP, offering a novel synthesis of cross-cultural management and innovation theory.

2. Literature Review

2.1. Employee Innovation Performance

Scott and Bruce [7] developed a pathway model of individual innovation behavior. This model provided the basis for subsequent research on innovative performance. The model summarizes the process of innovative behavior as a collection of processes, beginning with problem recognition and the generation of ideas or solutions, either novel or adapted. It can be both novel and adopted. It focuses on the individual's search for support from the environment, including colleagues and superiors, seeking to build a community of supporters, and ends with the completion of the innovative thought and its application to practice. Employee innovation in performance refers to the extent to which employees engage in behaviors that lead to the generation, development, and implementation of novel and valuable ideas. Janssen [8] summarizes the innovative behavior based on Scott and Bruce [7] study and proposes that individual innovation performance consists of three dimensions: generation, promotion, and realization. Innovation behaviors can range from incremental improvements to existing processes or products to radical breakthroughs that transform entire industries. These behaviors can be generated through three main modes: exploration, exploitation, and ambidextrous behaviors. Employee innovation performance is crucial for organizational success. It enables companies to remain competitive, adapt to changing market demands, and drive growth. Several factors influence innovation performance, including leadership, organizational culture, and employee characteristics such as personality and motivation. In the knowledge economy era, economic growth is heavily influenced by innovation.

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Companies that aim to gain a competitive advantage in the market prioritize employee innovation as it is the main driving force behind organizational development and sustainability [9].

2.2. Innovative Work Behavior (IWB)

Innovative work behavior (IWB) refers to proactive and intentional behaviors aimed at promoting innovation within an organization. IWB involves identifying, generating, and implementing new ideas, processes, products, or services. It can be categorized into four main areas: idea generation, knowledge sharing, idea implementation, and proactive problem-solving [10]. Research has shown that innovative work behavior is crucial for driving innovation performance. Employees who engage in IWB are more likely to generate creative solutions, implement innovative ideas, and facilitate organizational change.

2.3. Cultural Intelligence (CQ)

Earley and Ang [11] introduced the concept of Cultural Intelligence (CQ), defined as an individual's capability to function effectively in culturally diverse settings. CQ is a four-factor construct that includes metacognitive, cognitive, motivational, and behavioral dimensions, as conceptualized by Ang and Van Dyne [12] Ang and Van Dyne [12] based on Sternberg and Detterman's [12] multi-loci theory of intelligence. Cognitive CQ (CCQ) pertains to general knowledge and knowledge structures regarding cultures and cultural differences. This aligns with Ackerman [13] concept of intelligence-as-knowledge, which similarly emphasizes the significance of knowledge as a component of intellect. Metacognitive CQ (MCCQ) refers to the mental ability to acquire and evaluate cultural knowledge. It emphasizes awareness and monitoring of cognitive processes. Motivational CQ (MCQ) reflects the mental capacity to direct and sustain energy towards functioning and performing in intercultural situations. It addresses the motivated nature of conscious cognition that is critical for problem-solving in real-world situations. Meanwhile, behavioral CQ (BCQ) refers to the ability to adapt one's behavior to fit different cultural contexts. It involves exhibiting appropriate outward actions and behaviors [14] that help put others at ease during intercultural interactions. Cultural intelligence (CQ) is the capacity of an individual to comprehend, appreciate, and adjust to diverse cultural norms and values, allowing them to communicate effectively and collaborate with individuals from various backgrounds [15]. An individual's cultural adaptability, which is a component of CQ, is a significant predictor of creativity and innovation performance [4].

Metacognitive CQ enables individuals to reflect on cultural knowledge gaps and adapt strategies, while behavioral CQ facilitates actionable adjustments in communication. However, conflicting evidence still persists; some studies report weak links between cognitive CQ and creativity, whereas others emphasize motivational CQ as the strongest predictor. This discrepancy suggests contextual dependencies, such as industry type or cultural distance, which our study explores within a foreign trade setting.

3. Development of Hypotheses

3.1. Cultural Intelligence and Innovative Work Behavior

In the new era, sustainable enterprise development is primarily driven by innovation. To promote innovation, it is necessary for individuals at the grassroots level to take action [9]. Employees are crucial to an organization's ability to innovate. Innovative work behavior, on the other hand, describes the ability and willingness of employees to introduce new, creative ideas and solutions in their roles. Employees with distinct work behavior tend to achieve better performance and job satisfaction. CQ has been found to be positively related to innovative work behavior (IWB) in several studies. Elenkov and Manev [16] concluded that expatriates require cultural intelligence (CQ) to integrate knowledge from staff members across different cultures and exhibit innovative behavior. The authors predicted that leaders' culturally intelligent behavior supports the establishment of innovation goals among followers. Similarly, individuals with multicultural backgrounds may require cultural intelligence (CQ) to effectively balance and integrate knowledge and ideas from multiple cultures they have internalized,

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before being able to apply this information in innovative ways. Hu, et al. [17] confirmed the positive association between CQ and creativity; the study identified CQ as the mechanism linking multicultural experiences and individual creativity. While Yunlu, et al. [18] demonstrated that high levels of cultural intelligence (CQ) may enhance expatriates' creativity by increasing their cognitive flexibility.

Cognitive CQ refers to an individual's ability to understand and adapt to different cultures through cognitive processing. Previous studies have found that metacognitive, cognitive, and motivational aspects of CQ are positively related to individual creativity [18]. Several theories support the relationship between cognitive CQ and innovative work behavior (IWB). The theory of planned behavior, for instance, suggests that an individual's attitudes, subjective norms, and perceived behavioral control towards a particular behavior can influence their intentions to perform that behavior. According to this theory, employees with high cognitive CQ may have a more positive attitude towards innovation, perceive it as socially acceptable, and feel they have significant control over their innovative behavior, leading to higher intentions to engage in innovative behavior. Social learning theory supports the relationship between individuals learning and modeling their behavior based on observations of others. Individuals with high cognitive CQ may be more attentive to cultural cues and be more open to adopting innovative practices. Furthermore, individuals can also learn from their colleagues' innovative behavior, which can lead to an increase in their own IWB.

Metacognitive CQ refers to an individual's ability to monitor and regulate their cognitive processes when interacting with people from different cultures. Metacognitive CQ enables individuals to reflect on their cultural knowledge, identify gaps in their understanding, and engage in strategic thinking to adapt to culturally diverse situations. Strategic thinking and self-regulation are crucial for generating and implementing innovative ideas in the workplace. The self-regulation process of metacognitive CQ helps individuals overcome barriers to innovation, such as fear of failure or resistance to change. Individuals who possess higher metacognitive CQ may be more likely to engage in behaviors such as seeking feedback, reflecting on failures or successes, and adjusting their strategies accordingly, all of which are associated with higher levels of innovative work behavior (IWB). Higher metacognitive CQ in managers leads to increased affect-based trust, enabling more effective intercultural creative collaboration and idea sharing. Metacognitive CQ positively impacts individual creativity in culturally diverse environments.

Motivational CQ refers to an individual's interest and drive to learn about and work effectively with people from different cultures. Motivational CQ encourages individuals to seek out cross-cultural experiences and learn from them to enhance their creativity and innovation. This drive and interest in cultural diversity can help individuals develop a deeper understanding of different perspectives and approaches, leading to the generation of more innovative ideas. Motivational CQ can have a positive impact on individual creativity in culturally diverse environments. Moreover, individuals with high motivational CQ tend to be more open-minded and flexible in their thinking, enabling them to adapt to new situations and generate innovative solutions. They are also more likely to take risks and explore new possibilities, which is often a critical element of innovative behavior.

Behavioral CQ refers to an individual's capacity to adjust their behavior effectively and appropriately when interacting with people from different cultures. The behavioral CQ dimension may provide individuals with a wider range of verbal and nonverbal skills that facilitate effective communication across diverse cultural identities. Individuals who possess high behavioral CQ are more likely to adapt their communication styles, understand cultural norms, and effectively navigate diverse work environments. Such adaptability allows individuals to work collaboratively with colleagues from different cultures, encouraging the exchange of ideas and fostering innovation. Furthermore, individuals with high behavioral CQ are more likely to actively seek out diverse perspectives, engage in cross-cultural learning, and integrate different approaches into their work processes. The ability to incorporate diverse perspectives and ideas enhances the likelihood of generating innovative solutions. Based on the aforementioned arguments, the following hypotheses are developed:

Hypothesis 1: There is a positive relationship between CCQ and IWB.

Hypothesis 2: There is a positive relationship between MCCQ and IWB.

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Hypothesis 3: There is a positive relationship between MCQ and IWB.
Hypothesis 4: There is a positive relationship between BCQ and IWB.

3.2. The Mediating Effects of Innovative Work Behavior

Innovation is the process of generating new ideas to improve products and services. Innovation enhances the core competitiveness of employees and enterprises, promotes the upgrading of industrial structures, and leads the transformation of the macro-economy. Organizations that lack creativity face a higher risk of losing or reducing their market competitiveness.

Employees who engage in innovative work behaviors are likely to benefit the group, the organization, or even individual employees in performing their job tasks more effectively. Moreover, employees who exhibit innovative work behavior have a greater chance of improving their performance by creating new processes and ideas. Innovative work behavior serves as a stimulant for coping with challenges and solving problems, which helps employees become more efficient and achieve high performance. It is a crucial factor that serves as a link to attain a competitive advantage.

Cultural intelligence (CQ) refers to an individual's ability to effectively function across different cultural contexts. An employee with higher CQ is essential for innovative work behavior [5]. Additionally, the use of cultural intelligence (CQ) can promote the utilization of interactive whiteboards (IWB), particularly within culturally diverse workforces. Research indicates that CQ is positively correlated with employee innovation performance (EIP), creative performance, and overall employee performance [9]. Previous research has identified IWB as a mediator in the relationship between CQ and various outcomes, such as employee job performance and creativity [6]. Furthermore, innovative work behavior acts as a mediator between cyberloafing, person-organization fit, and employee performance [19].

Cognitive cultural intelligence (CQ) refers to an individual's ability to think and reason effectively in cross-cultural situations. Metacognitive cultural intelligence (CQ) pertains to an individual's capacity to manage their own cultural knowledge and skills, including their ability to learn and adapt in cross-cultural contexts. Individuals with high metacognitive CQ are better equipped to reflect on and learn from cross-cultural experiences, which can foster the development of new and innovative ideas and processes. Furthermore, individuals with high metacognitive cultural intelligence can enhance and implement their innovative ideas through active engagement in IWB.

Individuals with high CQ demonstrate a greater understanding of cultural differences and are better able to effectively communicate and collaborate with individuals from different cultural backgrounds. This cross-cultural collaboration can lead to the generation of new and innovative ideas that positively impact employee innovation performance. Expatriates with high levels of cognitive and metacognitive CQ can identify opportunities for innovative products, services, and processes abroad. The innovativeness of an expatriate is affected by their cognitive and metacognitive CQ.

Motivational (CQ) refers to an individual's interest and motivation to engage in cross-cultural interactions and activities. Individuals with high levels of motivational cultural intelligence (CQ) are more likely to proactively seek cross-cultural experiences and opportunities. This can foster their creativity and generate innovative ideas, as noted by Chen, et al. [20]. By engaging in IWB, individuals with high motivational CQ can turn these ideas into actual innovations that contribute to EIP. Chen, et al. [20] found that motivational CQ was a positive predictor of expatriate job performance. Motivational CQ and metacognitive CQ are positive predictors of cultural learning, which in turn is positively related to cross-cultural job creativity.

Behavioral CQ refers to an individual's ability to adapt their behavior appropriately in cross-cultural situations. Individuals with high behavioral CQ possess the necessary skills and knowledge to effectively navigate cross-cultural interactions, which can enhance their ability to generate and implement innovative ideas. Individuals with high behavioral CQ can translate ideas into tangible outcomes that contribute to EIP through their engagement in IWB.

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Individuals with high CQ possess the necessary abilities to navigate and thrive in culturally diverse settings. This skill set may enable them to generate and implement unique and innovative ideas in their work. Through their engagement in IWB, individuals with high CQ can translate these ideas into concrete outcomes that contribute to EIP. The literature has extensively documented the positive impact of CQ on employee performance outcomes. This study demonstrated a positive and significant relationship between the four CQ factors (motivational, cognitive, metacognitive, and behavioral) and task performance. Chua, et al. [21] suggest that cultural intelligence and its four aspects (motivational, cognitive, metacognitive, and behavioral) can predict performance. Furthermore, according to Afsar, et al. [22] the four dimensions of CQ can enhance cognitive understanding, motivation, and the ability to meet role expectations. There is a correlation between the four dimensions of CQ and performance. Therefore, the following hypotheses are proposed:

Hypothesis 5: The relationship between CCQ and employee innovation performance is mediated by IWB.

Hypothesis 6: The relationship between MCCQ and employee innovation performance is mediated by IWB.

Hypothesis 7: The relationship between MCQ and employee innovation performance is mediated by IWB.

Hypothesis 8: The relationship between BCQ and employee innovation performance is mediated by IWB.

4. Methodology

The study's population comprises Chinese foreign trade companies operating in six eastern provinces: Shandong, Jiangsu, Shanghai, Zhejiang, Fujian, and Guangdong. The selection of respondents from this specific group is motivated by several key factors. First, foreign trade companies are vital to China's economy, particularly in fostering export growth and cultivating international relations. By concentrating on these entities, the study aims to provide insights into their operational practices, challenges, and adaptations within a rapidly evolving global trade environment.

Second, these eastern provinces represent some of the most economically vibrant regions in China, where foreign trade activities are notably concentrated. This geographical focus allows for an exploration of trade strategies influenced by regional economic policies and market access. Furthermore, respondents from various provinces can offer diverse perspectives based on their unique experiences and local conditions, contributing to a more comprehensive understanding of the foreign trade landscape. Additionally, targeting a mix of both small and medium-sized enterprises (SMEs) and larger corporations enables the research to capture a wide range of operational strategies and viewpoints. SMEs often encounter distinct challenges compared to larger firms, such as limited resources and constrained market access, making their insights valuable for comprehending the full spectrum of foreign trade dynamics. Finally, by selecting respondents actively engaged in foreign trade, the study ensures that the findings are directly applicable to current practices and trends in the industry. This targeted approach enhances the relevance and applicability of the research conclusions, ultimately providing actionable insights that can inform policymaking and business strategies within the realm of international trade. The study's sample size is based on Sekaran and Bougie [23] and Roscoe [24] who suggested that most studies require a sample size between 30 and 500. A total of 316 survey questionnaires were administered, distributed as follows: 56 participants from Shanghai (17.72%), 46 from Guangdong Province (14.56%), 42 from Zhejiang Province, 61 from Jiangsu Province, 74 from Fujian Province (23.42%), and 37 from Shandong Province (11.71%). The targeted respondents were employees of foreign trade companies, specifically expatriates or those who had previously worked overseas. To measure cognitive CQ, metacognitive CQ, motivational CQ, and behavioral CQ, 20 items were used, which were adopted from Ang, et al. [25]. In measuring IWB, a 10-item scale from De Jong and Den Hartog [26] was used, whereas for employee innovation performance, it was adopted from Li [9]. All of these items were anchored on a 7-point Likert scale. This research utilizes WarpPLS7.0 [27]

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in measuring the model, PLS-SEM was selected for its robustness in handling complex models with small to moderate sample sizes, coupled with its ability to prioritize prediction over theory testing [1]. Participants recruited from six eastern Chinese provinces were selected for their economic significance and cultural diversity. To ensure representativeness, stratified sampling was employed, balancing SMEs (45%) and large enterprises (55%). Respondents had at least two years of international work experience, ensuring familiarity with cross-cultural challenges.

4.1. Assessment of the Measurement Model

Confirmatory factor analysis (CFA) is used to evaluate the measurement model (see figure 1) and assess the scale's discriminant validity, convergent validity, and reliability. Table 1 and Table 2 show the item loadings and discriminant validity HTMT of the measurement model. From Table 1, item loadings were found to range above 0.5, which is consistent with the study of Bagozzi and Yi [28] where all the average variance extracted (AVE) values exceeded 0.5, while the composite reliability (CR) was greater than 0.7 [29]. Therefore, the convergent validity criterion is met. From Table 2, which describes the discriminant validity of the construct, the AVE was square-rooted to reflect the intercorrelations of the model's constructs, thereby validating discriminant validity as in the study of Chin [30] and Chin [31]. The readings indicate that the AVE square root was greater than the connection with other dimensions.

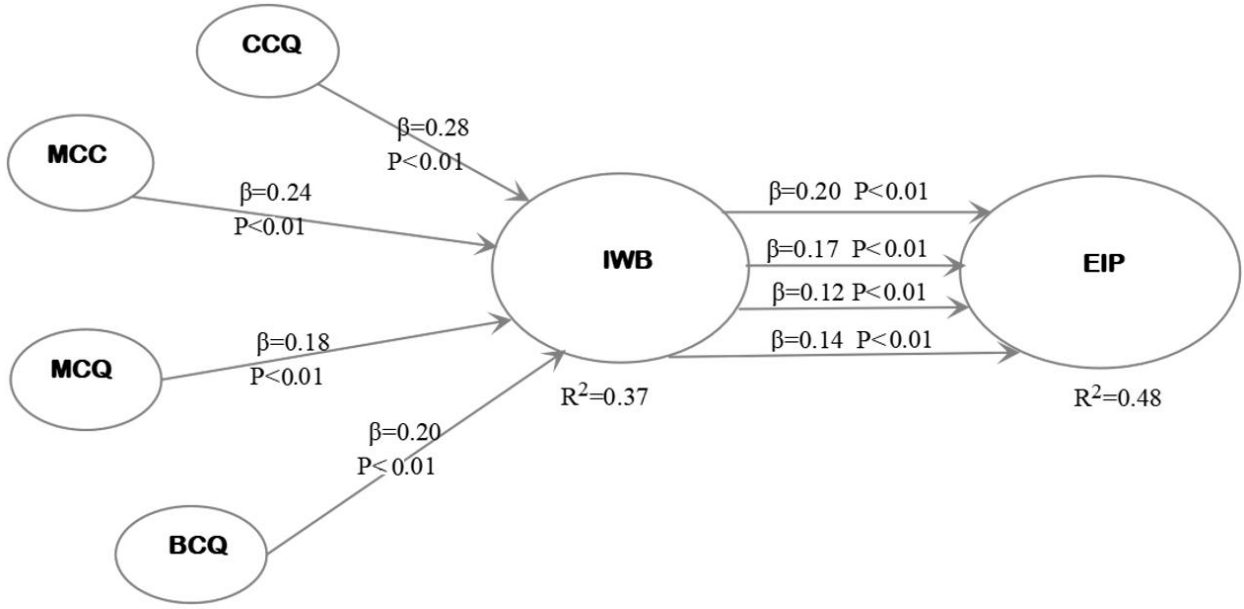

Figure 1.
Measurement Model.

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Table 1.
Results of the Measurement Model.

Constructs	Items Measurement	Loadings	Cronbach's alpha	CR[1]	AVE[2]
Cognitive CQ	CCQ1	0.801	0.898	0.922	0.663
	CCQ2	0.800			
	CCQ3	0.809			
	CCQ4	0.831			
	CCQ5	0.826			
	CCQ6	0.819			
Metacognitive CQ	MCCQ1	0.821	0.819	0.880	0.647
	MCCQ2	0.768			
	MCCQ3	0.814			
	MCCQ4	0.814			
Motivational CQ	MCQ1	0.797	0.872	0.907	0.661
	MCQ2	0.822			
	MCQ3	0.843			
	MCQ4	0.814			
	MCQ5	0.789			
Behavioral CQ	BCQ1	0.806	0.875	0.909	0.666
	BCQ2	0.797			
	BCQ3	0.816			
	BCQ4	0.842			
	BCQ5	0.820			
Innovative Work Behavior	IWB1	0.810	0.932	0.942	0.620
	IWB2	0.746			
	IWB3	0.777			
	IWB4	0.801			
	IWB5	0.757			
	IWB6	0.798			
	IWB7	0.813			
	IWB8	0.782			
	IWB9	0.807			
	IWB10	0.779			
Employee Innovation Performance	EIP1	0.807	0.911	0.927	0.615
	EIP2	0.773			
	EIP3	0.800			
	EIP4	0.771			
	EIP5	0.775			
	EIP6	0.801			
	EIP7	0.765			
	EIP8	0.781			

Note: [1] Composite Reliability
[2] Average Variance Extracted.

Table 2.
Discriminant Validity HTMT of Measurement Model.

Constructs	CCQ	MCCQ	MCQ	BCQ	IWB	EIP
Cognitive CQ	**0.814**					
Metacognitive CQ	0.257	**0.804**				
Motivational CQ	0.276	0.294	**0.813**			
Behavioral CQ	0.297	0.271	0.238	**0.816**		
Innovative Work Behavior	0.454	0.421	0.376	0.397	**0.787**	
Employee Innovation Performance	0.496	0.436	0.397	0.343	0.694	**0.784**

Note: Square roots of average variances extracted (AVEs) shown on diagonal.

4.2. Assessment of the Structural Model

PLS-SEM was used to measure the structural model and test the proposed hypotheses. When using PLS-SEM, it is important to consider two criteria: the coefficient of determination (R^2) to quantify the

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endogenous constructs and the path coefficients. To evaluate the significance of the path coefficients, it is important to note that the R^2 value may vary depending on the area of research. When evaluating R^2, values of 0.19, 0.33, and 0.67 are considered weak, moderate, and substantial, respectively. In this research, the R^2 for IWB and employee innovation performance are at the levels of 0.378 and 0.482, respectively (refer to Figure 1). The moderate R^2 for IWB (37.8%) and substantial R^2 for EIP (48.2%) align with prior studies in cross-cultural contexts, suggesting that IWB acts as a critical conduit for translating CQ into innovation outcomes. Consequently, large and moderate effect sizes were observed as summarized in Table 3.

Table 3.
Summary of Path Coefficient and Hypotheses Testing.

Hypothesis	Relationship	Path coefficients	Std Error	t-Values	p-values	BCI95% LL	BCI95% UL	Effect Size(f^2)	Decision
H1	Cognitive CQ→IWB	0.282	0.046	6.104	0.000	0.189	0.369	0.108	Supported
H2	Metacognitive CQ→ IWB	0.241	0.045	5.298	0.000	0.149	0.326	0.079	Supported
H3	Motivational CQ→ IWB	0.178	0.049	3.642	0.000	0.078	0.269	0.044	Supported
H4	Behavioral CQ → IWB	0.206	0.052	3.983	0.000	0.103	0.303	0.058	Supported
H5	Cognitive CQ → IWB→ EIP	0.196	0.034	5.792	0.000	0.129	0.261		Supported
H6	Metacognitive CQ → IWB →EIP	0.167	0.033	5.118	0.000	0.102	0.230		Supported
H7	Motivational CQ→ IWB → EIP	0.124	0.036	3.450	0.001	0.052	0.192		Supported
H8	Behavioral CQ → IWB →EIP	0.143	0.036	3.984	0.000	0.073	0.211		Supported
H9	IWB → EIP	0.694	0.030	22.850	0.000	0.625	0.745	0.929	Supported

Note: Cognitive CQ → IWB: f2=0.108f2=0.108 (moderate)
IWB → EIP: f2=0.929f2=0.929 (large).

5. Discussion

It seems probable that this study represents a pioneering effort to examine the dimensions of cultural intelligence, knowledge sharing, and employee innovation performance within a unified framework, given that most of the existing research has tended to examine these constructs in isolation. Table 3 demonstrates the results of the path coefficient and hypothesis testing. In analyzing H1, past studies have shown that employees with higher cognitive cultural intelligence are more adept at understanding and integrating diverse perspectives, which fosters a more innovative work environment. The results support H1. The statistical analysis conducted on H2 demonstrates the positive relationship between MCCQ and IWB, thereby supporting H2. This finding aligns with previous research, which suggests that individuals with higher metacognitive CQ are better able to plan, monitor, and adjust their behavior in cross-cultural interactions, leading to enhanced creativity and innovative outcomes in diverse work environments. Examining H3 showed that MCQ positively impacted IWB; hence, H3 is supported. This result is consistent with previous studies that have found that individuals with higher levels of motivational CQ are more driven to engage in cross-cultural interactions, which in turn fosters greater creativity and innovation in the workplace. The results further demonstrate that behavioral CQ has a substantial and positive link with IWB, which supports H4. Coherent with previous studies, this finding indicates that individuals who can adapt their verbal and non-verbal behaviors to different cultural contexts are more effective in generating innovative ideas and solutions within diverse teams. Moreover, the results disclose a significant role of innovative work behavior as a mediator in the link

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between cognitive CQ and employee innovation performance. As such, H5 is supportive of the hypothesis. In assessing H6, the findings validate H6 as it was found that IWB mediates the link between MCCQ and employee innovation performance. In examining H7, it was found that IWB plays a mediating role in the relationship between MCQ and employee innovation performance, thus supporting H7. The findings are consistent with the idea that employees with high motivational CQ are more engaged and persistent in cross-cultural interactions, which enhances their innovative work behaviors and consequently their overall innovation performance. The results further reveal a significant positive relationship in the mediating role of IWB on the link between BCQ and employee innovation performance. The results accentuate that employees who can effectively adjust their behavior to different cultural contexts are more likely to engage in innovative work behaviors, which in turn enhances their overall innovation performance**.** The analysis of H9 shows a significant positive relationship between these constructs, thereby supporting H9. Contrary to studies reporting mixed effects of cognitive CQ, our findings show uniform support across all hypotheses, possibly due to China's unique guanxi-driven business culture, where relational adaptability amplifies CQ's impact. However, the universal significance warrants caution; common method bias or contextual specificity may inflate relationships. Future research should incorporate longitudinal designs to validate causality.

6. Conclusion and Managerial Implications

The findings of this study provide critical insights for managers in foreign trade companies aiming to enhance employee innovation performance. Key implications include:

(1) Develop Cultural Intelligence (CQ): Managers should prioritize cultivating cultural intelligence within their teams. Effective training programs that focus on the cognitive, motivational, and behavioral aspects of CQ will enable employees to excel in multicultural environments, fostering a more innovative atmosphere.

(2) Encourage Innovative Work Behavior (IWB): Promoting proactive behaviors that drive innovation is essential. Establishing a clear innovation agenda, providing necessary resources, and recognizing innovative contributions will create a supportive environment for employees to share and implement new ideas.

(3) Integrate CQ and IWB Strategies: It is crucial to recognize that innovative work behavior mediates the relationship between cultural intelligence and employee innovation performance. Managers should align CQ development initiatives with IWB strategies to translate cultural adaptability into actionable innovation.

(4) Measure Impact and Adjust Accordingly: Implement metrics to assess CQ, IWB, and overall innovation performance. Regular monitoring of these indicators will allow for data-driven adjustments to strategies, ensuring continuous improvement and alignment with organizational goals.

This research underscores the vital role of cultural intelligence in enhancing innovative performance among employees in foreign trade companies. The quantitative analysis confirms significant relationships between CQ, IWB, and innovation outcomes, providing a robust framework for managers. By fostering cultural intelligence and innovative behaviors, organizations can effectively leverage their diverse workforce, establishing a sustainable competitive advantage in the global marketplace. These implications are especially relevant in foreign trade contexts, where adaptive and innovative approaches are essential for success.

Future research should explore the complex interactions between cultural intelligence (CQ) and innovative work behavior (IWB) in diverse global contexts. This exploration aims to identify culturally specific dynamics that influence innovation in multicultural workplaces. Additionally, it is essential to evaluate the long-term effects of CQ development initiatives on fostering sustained innovative behaviors and their associated performance outcomes. Moreover, investigating the moderating roles of digital transformation and virtual collaboration platforms on the CQ-IWB relationship may yield valuable insights into the evolving landscape of global work. Examining these areas will not only enhance

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theoretical understanding but also provide actionable strategies for multinational organizations seeking to cultivate innovative competencies within their workforce.

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