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**MSc**  
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MASTER THESIS

**Unlocking Synergies: Exploring the Interplay of Cultural Intelligence,  
Job Autonomy, and Cross-Cultural Dynamics in International  
Employee Adjustment, Performance, and Satisfaction**

MSc IN BUSINESS RESEARCH

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## ABSTRACT

**Purpose** – To understand the relationship and interplay between cultural intelligence, job autonomy, and their effects on cross-cultural adjustment and, consequently, performance and satisfaction among international employees.

**Design/methodology/approach** – An online survey was conducted which involved 96 international employees in Barcelona as a final sample. To test the hypothesize model, ordinary least squares path analyses and the bootstrapping technique were used.

**Findings** – Mediating effect of cross-cultural adjustment between cultural intelligence and outcomes (performance and satisfaction) was significantly positive, while job autonomy was found have a conditional effect on the full mediated-moderated model.

**Research limitations/implications** – The study's robustness is potentially hampered by a limited sample size, reliance on self-reported scales, a singular geographic context, and the cross-sectional research design.

**Practical implications** – Findings underscore the criticality of cultural intelligence and the intervenient role of job autonomy in shaping international employees' adjustment and subsequent outcomes. Both individuals and organizations are advised to bolster their cultural intelligence capacities and to cautiously evaluate the extent of autonomy granted.

**Originality/value** – This research offers pioneering insights into the moderating role of job autonomy in the relationship between cultural intelligence and cross-cultural dynamics. It bridges a notable gap in the literature and offers a fresh perspective on international talent management.

### Keywords

Cultural Intelligence, Cross-Cultural Adjustment, Job Performance, Satisfaction, Job Autonomy

## RESUMEN

**Propósito** – Entender la relación y la interacción entre la inteligencia cultural, la autonomía laboral y sus efectos en el ajuste intercultural y, en consecuencia, en el rendimiento y la satisfacción entre los empleados internacionales.

**Diseño/metodología/enfoque** – Se llevó a cabo una encuesta en línea que involucró a 96 empleados internacionales en Barcelona como muestra final. Para probar el modelo propuesto, se utilizaron análisis de trayectorias de mínimos cuadrados ordinarios y la técnica de *bootstrapping* en la prueba de las hipótesis.

**Resultado** – El efecto mediador del ajuste intercultural entre la inteligencia cultural y los resultados (rendimiento y satisfacción) fue significativamente positivo. También se corroboró que la autonomía en el trabajo tiene un efecto condicional en el modelo mediado-moderado propuesto.

**Limitaciones de la investigación** – La robustez del estudio podría verse afectada por un tamaño de muestra limitado, la dependencia de escalas auto-informadas, un contexto geográfico singular y el diseño de investigación transversal.

**Implicaciones prácticas** – Los hallazgos subrayan la importancia clave de la inteligencia cultural y el papel interviniente de la autonomía laboral en la configuración del ajuste y los resultados subsiguientes de los empleados internacionales. Se aconseja a las personas y las organizaciones que refuercen sus competencias en inteligencia cultural y que evalúen detenidamente el grado de autonomía otorgado.

**Originalidad/valor** – Esta investigación ofrece recomendaciones innovadoras sobre el papel moderador de la autonomía laboral en la relación entre la inteligencia cultural y la dinámica intercultural. Cubre una brecha notable en la literatura y ofrece una perspectiva renovada sobre la gestión de talento internacional.

### Palabras Clave

Inteligencia Cultural, Ajuste Intercultural, Rendimiento Laboral, Satisfacción, Autonomía Laboral.

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## INTRODUCTION

In today's globalized business environment, there is growing evidence of increasing global competition for highly skilled talent (Farndale et al., 2010). Simultaneously, the trend encourages and fosters the mobility of labors in diverse types across the cultural and national boundaries. Therefore, recently, it has gained more attention among academics to understand what factors lead international employees to reach work and life success and satisfaction (Hechanova et al., 2003; Holopainen & Björkman, 2005). These employees, also known as foreign, expat, multicultural or cross-cultural employees, live and work in host nations, being far away from their home countries. They are also facing special challenges such as absence of language ability, cultural knowledge, and the adaptation to the local culture (Bücker et al., 2016).

Based on previous studies, the well-being and efficiency-also referred as success or effectiveness of international assignment- have a positive impact on the overall organizational competitive advantage (Zhang & Dodgson, 2007). Earlier studies have shown that factors at the individual level, like personality traits, skills, capabilities, gender, marital status, previous international exposure, and proficiency in the local language, play a crucial role in predicting the success of international employees during their overseas postings (i.e. cross-cultural adjustment, task performance, and assignment completion) (Hechanova et al., 2003; Holopainen & Björkman, 2005). Until now, despite the growing interest on this field, there remains an evident gap in comprehending the factors that shape their success. More pointedly, as Gelfand et al., (2007) highlight, the individual level differences in abilities and skills for efficient intercultural interaction and communication in culturally diverse environment, are yet to be fully grasped.

Cultural intelligence (CQ), is an innovative, evidence-driven approach for individuals proficiently navigating diverse national, ethnic, and organizational cultures. Originally introduced by Earley and Ang (2003) and epitomized as an individual's capability for efficacious interactions within culturally diverse settings, cultural intelligence has steadily ascended in research importance. Later, Ang et al., (2007) developed a scale to measure cultural intelligence with four subdimensions; the meta, cognitive, motivational, and behavioral cultural intelligence. People with high cultural intelligence are capable of navigating complex circumstances and making the necessary adjustments in the host region (Jyoti & Kour, 2015).

Moreover, cross-cultural adjustment emerges as a cornerstone, significantly swaying outcomes for international employees, from intent to leave to job efficacy and satisfaction (Akhal & Liu, 2019; Burakova & Filbien, 2020; Cao et al., 2012; Jyoti & Kour, 2015, 2017, 2018; Takeuchi et al. 2002, Qin & Baruch, 2010). Together with cultural intelligence, cross-cultural adjustment often mediates these outcomes, underscoring that those with higher cultural intelligence tend to navigate better in their new milieu, leading to enhanced outcomes.

Given this backdrop, this study endeavors to weave together the threads of cultural intelligence and its intricate relationship with cross-cultural adjustment, job performance, and life/job satisfaction. Additionally, this research offers a fresh perspective by introducing job autonomy as a potential moderating variable in the international domain, postulating its significance in amplifying or attenuating the effects of cultural intelligence within diverse work arenas.

Leveraging an online questionnaire, insights were collected from 96 international professionals from a diverse of backgrounds, all based in Barcelona. They were asked to raise their strategic and motivational cultural intelligence, level of adjustment, job autonomy, job performance and job/life satisfaction, together with relevant demographic information. The result robustly endorsed the mediation from cultural intelligence to cross-cultural adjustment and its subsequent effects, which generalized and validated the constructs in the context of Spain. Notably, the result reveled the intricate interplay of job autonomy; while it had a significant interaction effect with cultural intelligence in influencing cross-cultural adjustment, its interaction with cross-cultural adjustment did not significantly influence performance or satisfaction, instead, it showed a conditional effect on the indirect mediation paths.

Thus, this study contributes to the field of international talent management by generalizing the validity of cultural intelligence on cross-cultural adjustment and further outcomes, as well as bringing new variable, job autonomy to the spotlight. The study concludes with discussions on implications, limitations, and recommendations for future research.

### **The area of Barcelona**

I choose the context of Barcelona city because it offers a very convenient research characteristics to the target population this study looks for. Barcelona, a city with a rich blend of cultural heritage and contemporary vibrancy, presents a unique environment for research on international people management. Several factors underscore the choice of this Mediterranean city:

*Cultural Diversity.* As a renowned tourist destination, Barcelona hosted approximately 9.7 million tourists in 2022, attracting a vast array of international visitors (City Hall of Barcelona, 2023). Its diverse international community further enriches the city's cultural tapestry, offering a vast population for research on cultural intelligence (22.4% of inhabitants were foreign population and came from 179 countries, according to Barcelona City Hall, 2021).

*Economic Significance.* Barcelona stands as one of Spain's principal economic centers. Hosting over 9,000 foreign companies (Catalonia Trade & Investment, 2022), it provides a significant pool of international employees, reinforcing its relevance for this study.

*International Dynamics.* 39 universities attract thousands of international students and researchers yearly to live in this city. Meanwhile, 22@ Barcelona project has been seen as an international landmark for innovation and modern urban planning, drawing multinational businesses and cross-cultural events. In conjunction with numerous other institutions and organizations, they propel Barcelona to the forefront as a global nexus for knowledge, commerce, and forward-thinking development.

*Language Dynamics.* Despite the prevalence of Catalan and Spanish, English remains a widely spoken language in business contexts due to the international nature of the city. This trilingual dynamic amplifies cross-cultural challenges and adjustments for professionals.

*Unique Context.* Barcelona's specific Mediterranean climate setting and unique cultural challenges, coupled with its position in European trade and commerce, provides a fresh perspective.

## LITERATURE REVIEW

### Cross-Cultural Adjustment

The literature on international students /employees and expatriation views adjustment as a crucial predictor factor in intercultural workers' and organizational success. Cross-cultural adjustment refers the level of psychological comfort and familiarity an individual has with the new environment (Black, 1990). In today's interconnected and globalized world, it holds immense significance. As individuals increasingly traverse borders for work, education, and personal reasons, the ability to adapt to the new cultures has become a pivotal skill.

In an early study of cross-cultural adjustment, Benson (1978) summarized the criteria to measure it with several sub-dimensions, including language skills, communication skills, interactions, reinforcing activities, friendliness, socially appropriate behaviors, job performance, attitudes, satisfaction and mobility. Later, Black and Stephens (1989) and Gregersen and Black, (1990) outlined cross-cultural adjustment into three sub-dimensions; general adjustment, interaction and job adjustment. *General adjustment* refers to adjusting to the host society's norms and general conditions of living. *Interaction adjustment* involves establishing a sense of ease and comfort in engaging with individuals from the host country, fostering positive interpersonal relations. And *work adjustment* meant integrating into the local work culture, aligning with the expectations and demands of the foreign workplace environment.

In addition, the model of Searle and Ward (1990) distinguish among two aspects of cultural adaptation; sociocultural and psychological. *Sociocultural adaptation* means learning how to fit into a new culture in practical ways. It's about knowing how to interact and navigate daily life effectively in that culture, similar to Black's (1990) general and interaction adjustment aspects,

while *psychological adaptation*, on the other hand, pertains to the degree of comfort and contentment a person experiences in a new culture, as opposed to feelings of anxiety and alienation.

Adjustment serves as a foundational element influencing subsequent outcomes, including turnover intentions (Akhil & Liu, 2019), expatriate, job, or task performance (Burakova & Filbien, 2020; Jyoti & Kour, 2015, 2017; Qin & Baruch, 2010; Ramalu et al., 2012; Rockstuhl & Van Dyne, 2018; Sambasivan et al., 2017), career success (Cao et al., 2012), job satisfaction (Takeuchi et al. 2002, Qin & Baruch, 2010), and knowledge sharing (Jyoti & Kour, 2018).

The process of cross-cultural adjustment is a multifaceted journey influenced by an array of antecedent factors, originating from both internal and external realms. Internal factors play a critical role in determining how someone reacts, behaves, and overall adjusts and adapts. They are originated from a person's own disposition, mindset, and psychological make-up.

Previous studies found that personality traits (Peltokorpi & Froese, 2012), the cross-cultural experience (Koo Moon et al., 2012; Mustaffa & Ilias, 2013; Takeuchi & Chen, 2013), language proficiency (Mustaffa & Ilias, 2013), level of education (Mustaffa & Ilias, 2013), the coping strategies (McClure, 2007) and goal orientation (Koo Moon et al., 2012) have significant effects on cross-cultural adjustment as internal aspects.

On the other hand, as external aspects, cross-cultural training (Littrell & Salas, 2005; Koo Moon et al., 2012; Kour & Jyoti, 2021), organizational support (Kraimer & Wayne, 2004) and social support (Adelman, 1988; Jyoti & Kour, 2017), also play a positive impact on cross-cultural adjustment.

Within this context, cultural intelligence emerges as a relatively novel yet significant predictor for cross-cultural adjustment.

## **Cultural Intelligence**

It was in the early 2000s that the term 'cultural intelligence' began to gain prominence. Researchers like Earley and Ang (2003) expanded upon earlier notions of intelligence by introducing the concept of cultural intelligence. This marked a shift from the traditional view of intelligence towards a more culturally nuanced understanding of cognitive, motivational, and behavioral capacities necessary for effective cross-cultural interactions. Of which, cognition involves deriving patterns from cultural cues; motivation entails the desire and capacity to engage with others; and behavior encompasses the ability to align actions with cognition and motivation.

Later, Ang and colleagues (2007) developed the scale to measure cultural intelligence index with four subdimensions; the meta, cognitive, motivational, and behavioral cultural



intelligence. People with high cultural intelligence are capable of navigating complex circumstances and making the necessary adjustments in the host region (Jyoti & Kour, 2015).

Previous studies have demonstrated a positive effect between cultural intelligence and Cross-cultural adjustment (Akhal & Liu, 2019; Cao et al., 2012; Jyoti & Kour, 2015; 2017; Jyoti *et al.*, 2018; Ramalu *et al.*, 2012; Zhang, 2012). Ramalu et al. (2011) emphasized the significance of cultural intelligence in facilitating the cross-cultural adjustment of expatriates. Their findings highlighted the substantial contributions of both metacognitive and motivational dimensions of cultural intelligence to the overall process of expatriates' successful cross-cultural adaptation.

*Meta-cognitive cultural intelligence* refers to the planning strategy before cross-cultural interactions and adjusting cultural knowledge when interacting with people with different cultural backgrounds (Ang *et al.*, 2007). According Ng and Earley (2006), this cultural intelligence facet refers to the individual's cultural awareness during interactions within diverse cultural contexts. Individuals who have higher meta-cognitive cultural intelligence exhibit greater sensitivity to cultural differences. Furthermore, research highlights the significant role of meta-cognitive cultural intelligence in aspects such as adaptation (Kim et al., 2008; Ramalu *et al.*, 2011), job performance (Ramalu *et al.*, 2011), contextual performance (Che Rose, *et al.*, 2010), cultural learning and job creativity (Xu & Chen, 2017).

*Motivational cultural intelligence*, reflects one's propensity to commit to adaptive behaviors when drives into an unfamiliar cultural setting (Earley & Peterson, 2004). People with high motivational cultural intelligence are more open and tend to persevere in ongoing cultural adaptation in both work and non-work settings. According to Earley and Ang (2003), motivational cultural intelligence emerged as a pivotal component of cultural intelligence, playing a central role in adapting to novel cultural surroundings.

Previous studies have revealed a positive significant effect between motivational cultural intelligence and cross-cultural adjustment (Ang *et al.*, 2007, Huff, 2013, Templer *et al.*, 2006), as well as for intention to stay and job performance (Xu, 2017). They also found that it plays a full mediating role between language ability and task performance (Presbitero, 2016).

Consequently, our aim is to expand the comprehension on successful cross-cultural adjustment and its outcomes such as performance and satisfaction. Starting with advancing the theoretical discussion on cultural intelligence as proposed by Earley and Ang (2003) by examining how the cultural intelligence (meta-cognitive and motivational) affects multiple aspects of cross-cultural adjustment (sociocultural adaptation and work adjustment). Therefore, we hypothesize:

**H1. Cultural intelligence has a significant positive impact on cross-cultural adjustment.**

## **Job performance and Job satisfaction**

*Job performance* has been widely used as a significant outcome factor in empirical researches of businesses and organizations. Campbell (1999) defined job performance as the function of knowledge, skills, abilities and motivation directed at role prescribed behaviour, such as formal job responsibilities. As discussed before, individuals with high meta-cognitive cultural intelligence planned ahead with strategies and adjusted their cultural knowledge before interacting in cross-cultural contexts. And one who possesses greater motivational cultural intelligence would be inclined to stay persistent in efforts to achieve their tasks and goals in various cultural contexts.

Adaptability consists of ability, skills, disposition, willingness to change or to fit in with different tasks, social and environment features (Ployhart & Bliese, 2006). When individuals are placed outside their native cultural environment, they become required to adapt to these unfamiliar surroundings to enhance their performance. Moreover, previous research provide evidences that successful cross-cultural adjustment is related to better job performance (Burakova & Filbien, 2020, Jyoti & Kour, 2015; 2017, Qin & Baruch, 2010, Ramalu *et al.*, 2012, Rockstuhl & Van Dyne, 2018, Sambasivan *et al.*, 2017).

Therefore, people with high cultural intelligence will have the ability to adjust, adapt and perform well in cross-cultural working environments. Thus, we anticipate that

**H2. Cross-cultural adjustment has a significant positive impact on work performance.**

**H3. Cross-cultural adjustment mediates the relation between cultural intelligence and performance.**

Another essential outcome factor in this study is *satisfaction*, as a more subjective measure of cross-cultural fit. Satisfaction as a concept has been extensively researched across various disciplines, including psychology, marketing, organizational behavior, and human resources. The definition and measurement of satisfaction can vary depending on the context, but at its core, satisfaction generally refers to the fulfillment of one's wishes, expectations, or needs, or the pleasure derived from said fulfillment. Within a cross-cultural work environment, satisfaction encompasses the diverse facets of feeling fulfilled in one's job roles, navigating job challenges, the influence on one's career, adapting to living conditions in the host nation, and the overall experience of residing and working there (Black & Gregersen, 1990).

Consequently, individuals who better adjust and adapt to new surroundings tend to experience greater satisfaction (Takeuchi *et al.*, 2002, Qin & Baruch, 2010). Accordingly; we anticipate the following hypotheses:

**H4. Cross-cultural adjustment has a significant positive impact on work and life satisfaction.**

**H5. Cross-cultural adjustment mediates the relation between cultural intelligence and work/life satisfaction.**

### **The intervening role of Job autonomy**

The last factor to consider in this study is the conditional role that *job autonomy* have on these effects. In that sense, the job characteristic model (Hackman & Oldham, 1975) suggests that autonomy, feedback, skill variety, task identity, and task significance affect personal and work-related outcomes. It has become a key component of motivational work design approaches (Campion, 1988) as it refers to the degree of freedom, independence, and discretion an employee has in terms of making decisions related to their job tasks, working schedule and how they carry them out (Breugh, 1985). It represents the extent to which an individual can control and choose their work activities, methods, and scheduling without excessive external intervention or supervision. It has been conceptualized with three dimensions: work scheduling autonomy, decision making autonomy, and work methods autonomy (Morgeson & Humphrey, 2006).

Previous researchers have reported that job autonomy positively moderates proactive personality and job performance (Fuller *et al.*, 2010), also the Big Five personality trait –openness to experience (Barrick & Mount, 1993), leadership and creativity (Wang & Chen, 2010), and working hour and job satisfaction (Dong, R. *et al.*, 2021).

However, in the context of cross-cultural working, although the relation between job autonomy and expatriate adjustment had been explored by several scholars (Aryee & Stone, 1996; Black, 1988; Black & Gregersen, 1991; Takeuchi *et al.*, 2008), studies including job autonomy with a moderate role in individual international employees' adjustment, performance and satisfaction remain scarce.

According to Takeuchi *et al.* (2008), expatriate managers who possess more decision-making autonomy are likely to view themselves as having a greater capacity to modify their job performance (referred to as work adjustment), engage with local individuals (termed interaction adjustment), and gain insight into their surrounding environment (known as general adjustment).

In line with these findings this study wants to research whether job autonomy could act as a moderator between cultural intelligence and cross-cultural adjustment to further explain its contribution. We anticipate that job autonomy might amplify the effects of cultural intelligence on cross-cultural adjustment. For individuals with high cultural intelligence, increased autonomy can provide more opportunities to leverage their cultural insights, facilitating even better adjustment.

Conversely, for those with low cultural intelligence, high job autonomy might lead to increased challenges if they cannot effectively navigate the cultural nuances on their own. Therefore, we hypothesize:

**H6a - Job autonomy moderates the relation between cultural intelligence and cross-cultural adjustment.**

As for job performance, high job autonomy may enhance the relationship between cross-cultural adjustment and performance. For individuals who have adjusted well to the new culture (high cross-cultural adjustment), job autonomy can provide them the flexibility to leverage their cultural insights and apply them directly to their job roles. This can lead to improved job performance as they are not only culturally attuned, but also empowered to make decisions that align with the local cultural nuances.

Conversely, for individuals who have not adjusted well (low cultural adjustment), high job autonomy might present troubles. Without a solid understanding of the cultural environment, the freedom associated with autonomy might lead to decisions or actions that are misaligned with local norms, potentially lower job performance. And in cases of low job autonomy, where tasks and decisions are more structured or dictated, the individual's cultural adjustment might have a reduced impact on job performance. The structured nature of their role might act as a safety net, preventing major missteps that can occur due to cultural misunderstandings.

Moreover, the moderating effect of job autonomy could also vary depending on the nature of the job. For roles that require a lot of independent decision-making and initiative (i.e., managerial roles), the moderating effect of autonomy might be more pronounced. In contrast, roles that are more routine and structured might see a lesser impact. Thus,

**H6b. Job autonomy moderates the relation between cross-cultural adjustment and performance.**

On the other hand, individuals who adjust well to a new culture (high cross-cultural adjustment) and are given a high degree of job autonomy might experience elevated levels of work satisfaction. The autonomy allows them to apply their cultural understanding directly to their roles, making decisions that align with local norms and preferences. This alignment can lead to better work outcomes and a sense of accomplishment, which in turn boosts work satisfaction (Chen et al., 2023).

Furthermore, the freedom and flexibility that come with autonomy might also translate to greater life satisfaction, as they can balance work and personal life according to their preferences,

facilitating smoother integration into the local culture. As for individuals struggling with cultural adjustment (low cross-cultural adjustment), high job autonomy might pose challenges. Their lack of cultural understanding, when combined with the freedom to make independent decisions, could lead to misaligned actions that don't resonate well with the local context. Such misalignment can lead to professional setbacks, reducing work satisfaction.

Additionally, if these professional challenges translate into personal stressors, they might also impact life satisfaction. In the case of lower job autonomy, the impact of cultural adjustment on work/life satisfaction might be less direct. Structured roles with defined tasks and limited decision-making latitude might shield individuals from significant missteps due to cultural misunderstandings. While they might not get the satisfaction boost that comes from leveraging cultural insights in a high-autonomy setting, they are also protected from potential pitfalls, leading to a more neutral impact on satisfaction. Consequently, we expect that,

**H6c - Job autonomy moderates the relation between cross-cultural adjustment and work/life satisfaction.**

Taken together all these rationale and theories, our research model looks as follow (see Figure 1)

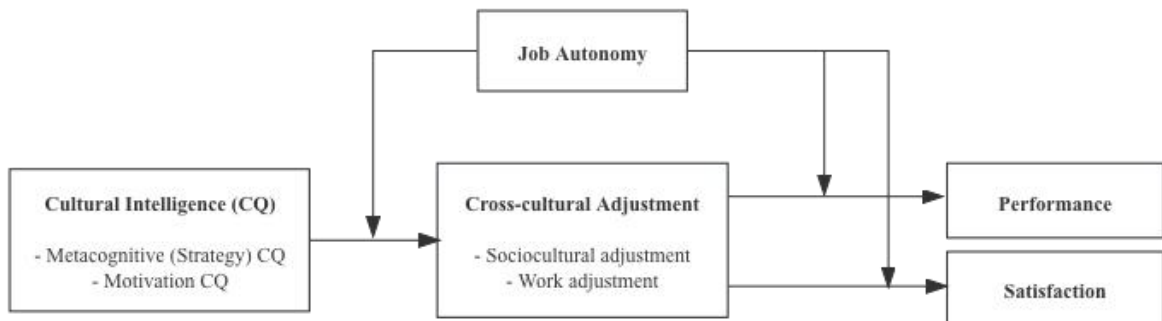


Figure 1. Research Model of Cross-Cultural Effects on Satisfaction and Job Performance

## METHODOLOGY

### Data Collection

Data was collected by an online survey using a combination of random and snowball sampling methods. First, I shared the survey to acquaintances including classmates, friends, professors, and other people working in Barcelona as foreigners. This initial sampling group served as a starting point for data collection.

To expand response rate, I used social media platforms and online networking groups that catered to the target group of the study. For example, Facebook groups of Barcelona expats, InterNations.com, etc. These channels allowed me to connect with a wider audience and encourage participation. Greater diversity of the sampling background has been realized, including various industries, positions, original nations and other demographic characteristics. And together with the initial sampling group, I asked these individuals to invite their colleagues and friends to participate on the survey if they fit the research criteria.

In addition to leveraging personal connections and online platforms, I reached out some member companies of the *Barcelona 22@ Networking* group by checking the official website. Emails were sent to the address they left on the web pages asking to reach the Human Resource department and invite them to support the research by sharing the questionnaire with their international employees. Three companies replied with supportive information. This collaborative effort aimed to enhance the diversity and representation of the sample.

By employing a multi-method approach involving random and snowball sampling, combining leveraging personal connections, online platforms, and targeted company engagement, the study sought to collect a comprehensive data-set that captures the perspectives of international employees in Barcelona.

### Sample

The final sample comprised 96 international employees working and living in Barcelona, among whom 64.6% were female. Of all participants, 62.5% were in a relationship or married. On average, the respondents were between 31 and 40 years old, and had stayed in Spain for a period of three to five years. About half of them (54.2%) were holding a master degree and working in mid-level positions (47.9%). Only 34.4% of them didn't have prior long-term (more than three months) international experiences. Regarding the language aspect, 86.5% of the participants were fluent in English, 30.2% of them conversational in Spanish, while 49% of them were fluent in Spanish. However, a majority had no (43.8%) or only basic knowledge (42.7%) of Catalan (the local language of Barcelona area). Worth mentioning is also that all participants were from various

cultural and industrial backgrounds: in total, 32 countries and 35 industries were represented, where the top three countries were Mexico (25%), UK (11.5%) and China (8.3%) while the top three industries were the (higher) education sector (20.8%), the IT sector (10.4%) and the health sector (8.3%).

### **Questionnaire Development**

The online questionnaire was named “*Survey of International Employees: How is it to live and work in Spain?*”. The questionnaire consisted of different sections, beginning with an introduction that included a greeting, expression of gratitude for participation, a clear statement of the survey's purpose, an estimated completion time, confidentiality assurances, and information about the researcher (name, faculty, and university); following the main section with eighteen questions; and ending with consent confirmation of this research and an option for the participants to leave their email addresses to receive the result of the research.

The questionnaire design aimed to comprehensively explore various dimensions related to the experiences of international employees, including cultural intelligence, cross-cultural adjustment, job autonomy, job performance, life/work satisfaction, and relevant demographic information (e.g. gender, age, education, marital status, industry, position, language proficiency, previous cross-cultural experience, etc.).

### **Measurement**

All variables were measured with Likert-type rating format. Consistent with previous research (e.g. Jackson, 2000; Christiansen *et al.*, 2005; Bartram, 2007) we exclude neutral answers choices to encourage active responses. This approach helps mitigate the potential risk of respondents overusing the midpoint (Chyung, et al., 2017), thereby ensuring the accuracy and reliability of the data collection. By requiring participants to make distinct choices without the comfort of a neutral option, the survey design encourages more thoughtful and deliberate responses, enhancing the overall validity of the results.

These measurement scales were employed to gauge the participants' subjective viewpoints regarding their cultural intelligence, cross-cultural adaptation, satisfaction, and job autonomy.

To assess **Cultural Intelligence (CQ)** we use the scale developed by Ang et al., (2007). Respondents were asked to indicate their level of agreement on the statements of their CQ. Answers were in a 6-point Likert-type rating format, where 1= ‘*Strongly disagree*’, 2= ‘*Disagree*’, 3= ‘*Moderately disagree*’, 4= ‘*Moderately agree*’, 5= ‘*Agree*’, and 6= ‘*Strongly agree*’.

This Cultural Intelligence scale was previously cross-culturally validated in different countries' context, such as USA and Singapore (Ang *et al.*, 2007), China (Akhil & Liu, 2019), Italy (Gozzoli & Gazzaroli, 2018), Germany (Greischel *et al.*, 2021), India (Kour & Jyoti, 2021), Malaysia (Che Rose *et al.*, 2010), etc. It contains 24 items, coming from four sub-dimensions: metacognitive, cognitive, motivational and behavioral.

For this specific study, to assess cultural intelligence, I included 4 items from the meta-cognitive dimension, and 5 items from the motivational dimension. As these two dimensions were reported to be the most representative dimensions when considering overall adjustment in a foreign cultural context (Ramalu *et al.*, 2011). A sample item is “*I enjoy interacting with people from different cultures*”. Cronbach's Alpha for this scale was .914.

**Cross-cultural Adjustment (CCA)** was assessed with a combination of the BSAS scale (The Brief Sociocultural Adaptation Scale) developed by Demes and Geeraert (2013) and The Work Adjustment sub-dimension of the Cross-cultural Adjustment index developed by Black (1988).

BSAS is a brief validated scale containing 12 items aiming to measure the extent to which the respondents are acculturated to the new environment. It inquires general, social, interaction, language aspects in brief words with examples to improve the clarity. Item examples such as “*Climate* (temperature, rainfall, humidity), *Social environment* (size of the community, pace of life, noise), *Social norms* (how to behave in public, style of clothes, what people think is funny), *People* (how friendly people are, how stressed or relaxed people are, attitudes toward foreigners), *Language* (learning the language, understanding people, making yourself understood)”, etc.

The 3-items of the *Work Adjustment scale* consists in investigating how well the respondents adjusted to their job responsibilities, performance standards and expectations at work, and supervisory responsibilities in the country they moved to. Item example is “*supervisory responsibilities*”, “*specific job responsibilities*” and “*performance standards and expectations at work*”. This scale was assessed with a 6-point Likert-type rating format, indicating how easy or difficult the respondents feel about some adjustment items, where 1= ‘*Very Difficult*’, 2= ‘*Difficult*’, 3= ‘*Moderately Difficult*’, 4= ‘*Moderately Easy*’, 5= ‘*Easy*’, and 6= ‘*Very Easy*’. Cronbach's Alpha for this scale ( $\alpha=.807$ )

**Satisfaction (SAT).** To measure the level of living and working satisfaction of international employees, of their current situation in Spain (e.g.; job responsibilities, job's challenge, job's career impact, experience of living and working in Spain). We used the 5-items scale developed by Black and Gregersen (1990). We assessed it with a 6 point Likert-type, from 1 = ‘*Extremely Dissatisfied*’



to 6 = 'Completely Satisfied'. A sample item is: "experience of living and working in Spain". Cronbach's Alpha for this scale in this study was .926.

**Expatriate Performance (EP).** To assess performance in the international context, we used the scale of EP, from Kraimer et al., 2001. This scale refers to: completing job objectives, technical competence, interacting with coworkers, adjusting to the local business customs and norms. Specifically, participants were asked: "Can you rate your work performance in...?" respondents indicated how well they did at work, ranging from 1= 'Very poor' to 7= 'Outstanding'. An item example is "adjusting to the local business customs and norms". Cronbach's Alpha for this scale in this study was .919.

**Job Autonomy (JA).** We assessed job autonomy with a 9-item scale developed by Morgeson and Humphrey, 2006. This scale has 3 sub-dimensions: Work Scheduling Autonomy (WSA), Decision-Making Autonomy (DMA) and Work Methods Autonomy (WMA), and each sub-dimension contained 3 items. Participants were asked to indicate their level of agreement on the statements related to their job autonomy. It's in 6-point Likert-type rating format, where 1= 'strongly disagree', 2= 'Disagree', 3= 'Moderately disagree', 4= 'Moderately agree', 5= 'Agree', and 6= 'Strongly agree'. An item example is "My current job provides me significant autonomy in making decisions." Cronbach's Alpha for this scale in this study was .971.

**Control Variables.** We control by *gender* (measured as 0= female, 1= male); *age*, operationalized as: 1= [20 or less years old], 2= [from 21 to 30 years old], 3= [31 to 40 years old], 4= [41 to 50 years old], and 5= [above 50 years old].

To control for *marital status*, we used; 1= [Single], 2= [In a relationship], 3= [Married], 4= [Separated/ divorced], 5= [Widow], 6= [Other]. The *length of the stay in Spain* was operationalized as 1= [Less than 6 months], 2= [6 to 12 months], 3= [1.1 to 3 years], 4 = [3.1 to 5 years], 5= [More than 5 years]).

Finally, we also control for the *local language proficiency (Spanish)*, where 1= [None], 2= [Basic], 3= [Conversational], 4= [Fluent]. To capture the experience in foreign countries, we asked for the *length of stay in Spain*, where 1= [Less than 6 months], 2= [6 to 12 months], 3= [1.1 to 3 years], 4= [3.1 to 5 years], 5= [More than 5 years].

All these controls were also used in previous studies (e.g., Hechanova et al., 2003) as they are correlated with cross-cultural adjustment.

## RESULTS

### Descriptive Analysis

**Table 1** shows the descriptive statistics and zero order correlations among study variables. Study variables are positively correlated with each other. Only 3 control variables have significant correlation among them. Marital status is significant and positive correlated with age ( $r = .516, p < .01$ ), and with education ( $r = .247, p < .05$ ). Length of the stay in Spain is significant and positively correlated with age ( $r = .321, p < .01$ ), and with local language proficiency (Spanish) ( $r = .396, p < .01$ ). Finally, only one control variable, length of stay, is significant correlated with a predictive variable: cultural intelligence ( $r = .207, p < .05$ ).

**Table 1.** Mean, standard deviations, and correlations between study variables (N = 96)

	1	2	3	4	5	6	7	8	9	10	11
<b>1. Age</b>	--										
<b>2. Gender</b>	0.055	--									
<b>3. Education</b>	0.089	0.063	--								
<b>4. Marital status</b>	<b>.516**</b>	-0.117	<b>.247*</b>	--							
<b>5. Length stay in Spain</b>	<b>.321**</b>	-0.091	0.026	0.183†	--						
<b>6. Language proficiency [Spanish]</b>	0.007	-0.078	0.136	-0.055	<b>.396**</b>	--					
<b>7. Cultural Intelligence</b>	0.145	<b>-.211*</b>	-0.028	0.077	<b>.207*</b>	<b>.349**</b>	(.915)				
<b>8. Sociocultural Adaptation</b>	0.049	0.079	0.135	-0.181†	0.050	<b>.303**</b>	<b>.476**</b>	(.870)			
<b>9. Autonomy 2</b>	0.138	0.018	0.154	0.031	0.028	<b>.274**</b>	<b>.334**</b>	<b>.477**</b>	(.971)		
<b>10. Satisfaction</b>	0.137	-0.082	0.115	-0.044	0.088	<b>.299**</b>	<b>.479**</b>	<b>.567**</b>	<b>.742**</b>	(.926)	
<b>11. Expatriate Performance</b>	0.113	-0.094	0.077	-0.017	0.171	<b>.408**</b>	<b>.584**</b>	<b>.620**</b>	<b>.472**</b>	<b>.584**</b>	(.919)
<b>Mean</b>	3.10	0.35	2.76	2.16	3.88	3.24	5.02	4.57	4.53	4.59	5.64
<b>Standard deviation</b>	1.01	0.48	0.75	0.99	1.15	0.88	0.80	0.79	1.30	1.15	1.15

Note. Significant at \*\* $p < .01$ ; \* $p < .05$ ; † $p < .1$  (Two tailed). **Age:** 1= [20 or less years old], 2= [21 to 30 years old], 3= [31 to 40 years old], 4= [41 to 50 years old], 5= [above 50 years old]. **Gender:** 1= Male, 2= Female. **Education:** 1= [Secondary school], 2 = [Bachelor], 3 = [Master], 4 = [PhD], 5 = [Other]. **Marital Status:** 1 = [Single], 2 = [In a relationship], 3 = [Married], 4 = [Separated/divorced], 5 = [Widow], 6 = [Other]. **Length of stay in Spain:** 1 = [Less than 6 months], 2 = [6 to 12 months], 3 = [1.1 to 3 years], 4 = [3.1 to 5 years], 5 = [More than 5 years]. **Language proficiency (Spanish):** 1 = [None], 2 = [Basic], 3 = [Conversational], 4 = [Fluent]. Cronbach's alpha of scales is shown in the diagonal.

### The Mediating Role of Cross-cultural Adjustment

We first conducted a simple mediation analysis using ordinary least squares path analyses and the bootstrapping technique. We tested these hypotheses using model 4 from the PROCES

macro developed by Hayes (2022). For each dependent variable we ran a separate analysis. Findings show that cultural intelligence indirectly influences both employees' performance and satisfaction through its effects on cross-cultural adjustment.

**Hypothesis 1** specifies that cross-cultural intelligence (X) is positively associated with cross-cultural adjustment (M) (first path of the mediation). As shown in Table-2, cultural intelligence is significantly associated with cross-cultural adjustment (in every hypothesized mediation; for predicting performance:  $a = 0.44$ ,  $p < .01$ , and for satisfaction;  $a = 0.49$   $p < .01$ ). The 95% of bias-corrected bootstrap confidence interval for the direct effect based on 50,000 bootstrap samples is above zero in both analyses (0.31 to 0.68). Thus, corroborating the hypothesis 1.

**Hypotheses 2 and 4** predicted the second path of the mediation effect of cross-cultural adjustment (M) on the two dependents (Y). Specifically, *hypothesis 2* postulates that cross-cultural adjustment (M) is positively associated with employees' performance (Y). Results at Table 2 provide evidence that this relation is significant and positive ( $b = 0.44$ ,  $p < .01$ ). The 95% of bias-corrected bootstrap confidence interval is also entirely above zero (0.17 to 0.71).

*Hypothesis 4* anticipated that cross-cultural adjustment (M) is positively associated with work and life satisfaction (Y). Results at Table 2 show a significant positive association ( $b = 0.35$ ,  $p < .05$ ) among these variables. The 95% of bias-corrected bootstrap confidence interval is entirely above zero (0.05 to 0.65). Thus, hypothesis 4 is corroborated.

Therefore, the effects between M and Y are significant. Thus, our results corroborate hypotheses 2 and 4.

**Hypotheses 3 and 5** anticipated the mediating role of cross-cultural adjustment. Specifically, the *hypothesis 3* predicted the indirect effect of the cultural intelligence (X) on performance (Y) through the cultural adjustment (M). The 95% of bias-corrected bootstrap confidence interval for the indirect effect of X on Y is significant ( $ab = 0.31$ ), as it is entirely above zero (0.06 to 0.56).

*Hypothesis 5* postulates the indirect effect of the cultural intelligence (X) on work and life satisfaction (Y) through the cultural adjustment (M). The 95% of bias-corrected bootstrap confidence interval for the indirect effect of X on Y is significant ( $ab = 0.31$ ), as it is entirely above zero (0.06 to 0.53).

Therefore, we can conclude that cultural intelligence (X) indirectly affects performance (Y) as well as work and life satisfaction (Y) through cross-cultural adjustment. Thus, results support hypothesis 3 and hypothesis 5 in predicting the cross-cultural adjustment mediating role.

**TABLE 2**

Model coefficients for the mediation model – Cultural Intelligence to Performance & Satisfaction through Cross-cultural adjustment

<i>Outcomes:</i>	<b>Cross-cultural Adjustment (M)</b>			<b>Performance (Y)</b>		
	<i>Coefficient</i>	<i>Std. Error</i>	<i>Boot CI</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>Boot CI</i>
<b>X(Cultural intelligence)</b>	0.44**	0.09	[0.31, 0.68]	0.44**	0.13	[0.17, 0.71]
<b>M(Cross-cultural adjustment)</b>	--	--	--	0.64***	0.13	[0.37, 0.90]
<b>Constant</b>	1.66**	0.54	[0.59, 2.73]	-2.63 ns.	0.72	[-1.68, 1.16]
<b>F</b>	7.98***			13.64***		
<b>R<sup>2</sup></b>	0.350			0.520		
<i>Total, direct &amp; Indirect effects of X on Y</i>						
		<i>Boot Effect</i>	<i>Boot Std. Error</i>	<i>Bias-corrected &amp; accelerated CI</i>		
<b>Total effect of X on Y</b>		0.75***	0.13	[0.49, 1.01]		
<b>Direct effect of X on Y</b>		0.44**	0.13	[0.17, 0.71]		
<b>Indirect effect of X on Y</b>		0.31	0.13	[0.06, 0.56]		

<i>Outcomes:</i>	<b>Cross-cultural Adjustment (M)</b>			<b>Satisfaction (Y)</b>		
	<i>Coefficient</i>	<i>Std. Error</i>	<i>Boot CI</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>Boot CI</i>
<b>X(Cultural intelligence)</b>	0.49***	0.09	[0.31, 0.68]	0.35*	0.15	[0.05, 0.65]
<b>M(Cross-cultural adjustment)</b>	--	--	--	0.63***	0.15	[0.32, 0.92]
<b>Constant</b>	1.66**	0.54	[0.59, 2.73]	-0.47 ns.	0.81	[-2.08, 1.13]
<b>F</b>	7.98***			8.08***		
<b>R<sup>2</sup></b>	0.350			0.391		
<i>Total, direct &amp; Indirect effects of X on Y</i>						
		<i>Boot Effect</i>	<i>Boot Std. Error</i>	<i>Bias-corrected &amp; accelerated CI</i>		
<b>Total effect of X on Y</b>		0.66***	0.15	[0.37, 0.94]		
<b>Direct effect of X on Y</b>		0.35*	0.15	[0.05, 0.65]		
<b>Indirect effect of X on Y</b>		0.31	0.12	[0.06, 0.53]		

Note: N = 98 participants. Significant at: \*\*\* p < .001 \*\* p < .01 \* p < .05. X = Antecedent variable; M = Mediator; Y = Dependent. Boot SE= Bootstrap standard error; CI = Confidence interval. Cis containing zero are interpreted as non-significant. Control variables included as covariates were age, gender, education, marital status, length stay in Spain, language fluency (Spanish). Results are based on 50,000 bootstrap samples. [model 4]

## The Moderating Effect of Job Autonomy

To test the conditional hypotheses number six, we used the PROCESS macro (model 58) developed by Hayes (2022). Specifically, these 3 hypotheses anticipate the moderating effect of job autonomy.

**Hypotheses 6a, 6b and 6c** anticipated the moderating effect of job autonomy. Specifically, *hypothesis H6a* explores the extent to which the relationship between cultural intelligence on cross-cultural adjustment depends on job autonomy, while H6b states the relationship between cross-cultural adjustment on performance depends on job autonomy, and H6c states the relationship between cross-cultural adjustment on life/ work satisfaction depends on job autonomy.

As can be seen in Table 3, the interaction term between cultural intelligence and job autonomy significantly affects cultural adjustment ( $\beta = -0.165$ ,  $p < .01$ , 95% bootstrap CI [-0.26, -0.07]). Thus, supporting hypothesis 6a.

While, the moderating effect of job autonomy on the relationship between cultural adjustment and performance is not significant ( $\beta = -0.06$ ,  $p = \text{ns.}$ , 95% bootstrap CI [-0.23, 0.11]). These results do not support the *hypothesis 6b* given that the confidence interval contains zero.

However, when considering together the conditional effect of job autonomy on both paths of the mediation, then the indirect relationship between cultural intelligence on performance through cross-cultural adjustment is significant and stronger when job autonomy is low (-SD), as the confidence interval of the moderated mediation of this conditional indirect effect does not contain zero (effect = .022 [0.04, 0.44]).

Whereas, when considering satisfaction as dependent variable, the moderating effect of job autonomy on the relationship between cross-cultural adjustment and satisfaction is not significant neither ( $\beta = -0.043$ ,  $p = \text{ns.}$ , 95% bootstrap CI [-0.19, 0.10]). Thus, not supporting *hypothesis 6c*.

However, when considering together the conditional effect of autonomy on both paths of the mediation, then the indirect relationship between cultural intelligence on satisfaction through cross-cultural adjustment is significant and stronger when autonomy is low (-SD), as the CI of the moderated mediation of this conditional indirect effect does not contain zero (effect = .012 [0.1, 0.27]), (see Table 3 for further details).

Overall, our findings provide evidence of the mediating role that cross-cultural adjustment play in the relationship between cultural intelligence and performance and work and life satisfaction. Moreover, job autonomy plays a conditional role in these indirect effects, enhancing the impact of cultural intelligence on both dependents via cross-cultural adjustment: performance and satisfaction.

**TABLE 3** Unstandardized coefficients for the conditional process model

	Cross-cultural Adjustment (M)			Performance (Y)	
	Coeff. (SE)	95% CI	Coeff. (SE)	95% CI	
Cultural Intelligence (X)	.916*** (.17)	[0.58 to 1.25]	.366* (.15)	[0.07 to 0.66]	
Cross-cultural Adjustment (M)	-	-	.778* (.35)	[0.09 to 1.47]	
Autonomy (W)	1.02***(.24)	[0.54 to 1.50]	.415 ns (.38)	[-0.34 to 1.17]	
X * W	-.165** (.05)	[-0.26 to -0.07]	-.061 ns (.08)	[-0.23 to 0.11]	
Constant	-.948 ns (.84)	[-2.62 to 0.73]	-1.02 ns (1.3)	[-3.59 to 1.55]	
	$R^2 = 0.501$ $F(8,87) = 10.899, p < .000$			$R^2 = 0.542$ $F(9,86) = 11.317, p < .000$	
Conditional Indirect Effects of Cultural Intelligence on Performance					
Indirect effect	Condition	Effect	BootSE	BootLL CI	BootULCI
Intelligence – Adjustment – Performance	Autonomy (- 1SD)	<b>0.222</b>	<b>0.099</b>	<b>0.044</b>	<b>0.435</b>
	Autonomy (Mean)	0.084	0.065	-0.029	0.229
	Autonomy (+ 1SD)	-0.020	0.072	-0.187	0.115

	Cross-cultural Adjustment (M)			Satisfaction (Y)	
	Coeff. (SE)	95% CI	Coeff. (SE)	95% CI	
Cultural Intelligence (X)	.916*** (.17)	[0.58 to 1.25]	.220+ (.13)	[-0.04 to 0.48]	
Cross-cultural Adjustment (M)	-	-	.449 ns (.31)	[-0.16 to 1.06]	
Autonomy (W)	1.02***(.24)	[0.54 to 1.50]	.717 * (.33)	[0.06 to 1.38]	
X * W	-.165** (.05)	[-0.26 to -0.07]	-.043 ns (.07)	[-0.19 to 0.10]	
Constant	-.948 ns (.84)	[-2.62 to -0.72]	-.896 ns (1.1)	[-3.16 to 1.37]	
	$R^2 = 0.501$ $F(8,87) = 10.899, p < .000$			$R^2 = 0.647$ $F(9,86) = 17.477, p < .000$	
Conditional Indirect Effects of Cultural Intelligence on Satisfaction					
Indirect effect	Condition	Effect	BootSE	BootLL CI	BootULC I
Intelligence – Adjustment – Satisfaction	Autonomy (- 1SD)	<b>0.118</b>	<b>0.065</b>	<b>0.012</b>	<b>0.268</b>
	Autonomy (Mean)	0.043	0.043	-0.013	0.148
	Autonomy (+ 1SD)	-0.009	0.041	-0.094	0.080

Note: Significant at \*p < .05, \*\*p < .01, \*\*\*p < .001. Coeff. = Unstandardized path coefficients;

(SE) = Standard error; BootSE = Boot standard error; BootLLCI = Boot lower bounds; BootULCI = Boot upper bounds. CI = Confidence interval. CI's not containing zero are interpreted as significant. X = Antecedent variable; M = Mediators; Y = Dependent; W = Moderator. Results are based on 50,000 bootstrap samples. [Process model n. 54.]

## DISCUSSION

This study aimed to broaden the scope of cross-cultural research by further understanding the cultural intelligence implications in association with cross-cultural adjustment as mediator, on international employees' performance and life and job satisfaction, using job autonomy as moderator. Findings corroborated our hypotheses.

### **The Mediating Role of Cross-cultural Adjustment**

The first path between cultural intelligence (meta-cognitive & motivational cultural intelligence) and cross-cultural adjustment (sociocultural & working adjustment) determine whether individuals with high cultural intelligence are more prone to adjusting to the new cultural, social, and working environments. Individuals with high meta-cognitive cultural intelligence who possess better cultural awareness are inclined to be sensitive to cultural differences and adjust their cultural knowledge when interacting with others from diverse cultural backgrounds. Furthermore, people with high motivational cultural intelligence are more open and tend to persevere in ongoing cultural adaptation in both contexts; work and non-work settings. The first hypothesis, addressing the positive significant relationship between cultural intelligence and cross-cultural adjustment, found empirical support.

These results highlight that individual's with high cultural intelligence –those that are aware of cultural differences and persevere in ongoing cultural adaptation– will have also the ability to better adjust to a new cultural environment. This is consistent with previous studies about cultural intelligence and cross-cultural adjustment (e.g., Kim et al., 2008; Ramalu et al., 2011).

The second path of the mediation effect –from cross-cultural adjustment to both dependents (performance and satisfaction)– are also corroborate as hypothesized; there are significant and positive effects between cultural adjustment and both dependent variables. An individual with a better adjustment to the new culture is more likely to perform efficiently, given that he/she can understand and navigate the cultural norms of the work environment. Moreover, the adjustment process enhances one's satisfaction levels in the new culture, both in terms of job and daily life.

The mediating effect of cross-cultural adjustment between cultural intelligence as predictor and performance and job/life satisfaction as outcomes are also corroborate. While cultural intelligence sets the stage by providing individuals with the cognitive tools and motivations to understand and navigates through the new culture. It is through successful cultural adjustment that these capabilities manifest in tangible outcomes like improved performance and higher satisfaction. Essentially, cross-cultural adjustment acts as the bridge to better perform and got greater satisfaction through which the potential benefits of high cultural intelligence are realized.

In line with previous studies (Burakova & Filbien, 2020; Jyoti & Kour, 2015, 2017, 2018; Sambasivan et al., 2017; Ramalu et al., 2012), this study highlights the importance of cultural adjustment as a bond between understanding diverse cultures and translating that understanding and motivation into practical performance and personal satisfaction. It also underlines the value of individual cultural intelligence in the purpose of gaining better cultural adjustment and further outcomes as performance and satisfaction.

### **The Complex Interplay of Job Autonomy**

The job autonomy or the degree of freedom, independence, and discretion an employee has in terms of making decisions related to their job tasks, working schedule and how they carry them out (Breugh, 1985) plays an intervening effect in this equation. Findings of this study implies that there is a strong association between having autonomy at work (together with cultural intelligence) in predicting better cross-cultural adjustment and subsequent performance and satisfaction. This might suggest that when individuals have the freedom to make decisions and control their actions, they are more likely to seek out and engage in activities that help them adjust to the new cultural and working environment.

Most importantly, the results revealed mixed findings regarding the moderating effect of job autonomy in the context of cultural intelligence and cultural adjustment. While job autonomy had a significant interaction effect with cultural intelligence in influencing cross-cultural adjustment, its interaction with cross-cultural adjustment did not significantly influence performance or satisfaction.

When there is a significant interaction effect, it means that the relationship between the predictor (cultural intelligence) and the outcome (cross-cultural adjustment) is different at different levels of the moderator (job autonomy). Given the negative coefficient of the interaction term, it indicates that job autonomy can interact cultural intelligence in relation to cross-cultural adjustment in the ways:

(1) The positive relationship between cultural intelligence and cross-cultural adjustment suggests that individuals with a higher level of cultural intelligence have a better ability to adjust in cross-cultural environments. When given a degree of job autonomy, they can utilize their understanding of cultures to devise strategies to handle cultural differences, improving their cross-cultural adjustment.

(2) The negative interaction effect between cultural intelligence and job autonomy suggests that the advantage of high cultural intelligence might be somewhat "diminished" or "overwhelmed" by very high job autonomy. In other words, while cultural intelligence is beneficial for adjustment, when combined with too much autonomy, it might not yield as much benefit for adjustment as one



would expect. This may be due to reasons like misusing their autonomy, or facing decision paralysis in highly autonomous situations.

Summarizing, individuals with high cultural intelligence seem to adjust better to cross-cultural situations when they have lower job autonomy, whereas the positive effect of cultural intelligence on cross-cultural adjustment is not as pronounced or needed when job autonomy is high.

However, consistent with our expectations and with a global statistical analyses of the full model, it can be seen that job autonomy does have a conditional effect on the full mediated-moderated model. Specifically, the indirect effects of cultural intelligence on performance and satisfaction, through cross-cultural adjustment, are stronger when job autonomy is low. Following these findings, we can consider an international employee in a very structured and micromanaged position. Here, his/her ability to understand and adapt to different cultures and his/her motivation to acculturation (cultural intelligence) play a crucial role in how well s/he adjusts to the cross-cultural environment. This adjustment, in turn, significantly affects his/her performance and satisfaction. But when the level of autonomy increased, the effect became less conclusive (not statistically significant).

It's essential to note that this does not reduce the value of cultural intelligence in high-autonomy roles. In positions with high autonomy, individuals have more freedom to make decisions, formulate strategies, and approach tasks as they see fit. While this can be advantageous for some, it can also be overwhelming, especially when dealing with cross-cultural challenges. Those with high cultural intelligence might have the innate skills to navigate these challenges effectively, but the direct benefit of these skills (in terms of performance and satisfaction) might be diluted because of the numerous other factors and variables at play in a high-autonomy environment.

In conclusion, in both performance and satisfaction outcomes, the beneficial effects of cultural intelligence, via cross-cultural adjustment, are more pronounced in contexts with lower job autonomy, meaning they can lean more heavily on their cultural intelligence to navigate challenges, leading to greater performance and satisfaction. This could be because structured environments allow those with high cultural intelligence to apply their skills more effectively without the potential pitfalls or distractions of high autonomy. The conditional effects vary, implying the need for organizations to consider the right balance of autonomy, especially for international employees navigating cross-cultural environments.

## **Theoretical Implications**

Firstly, the findings from this research contribute and expand the theoretical understanding of cultural intelligence (Earley & Ang, 2003). The study provides empirical evidence supporting the established theoretical links between cultural intelligence and cultural adjustment.

Secondly, this study reinforces the mediating role of cross-cultural adjustment, bridging the relations between cultural intelligence and performance and satisfaction outcomes. This emphasizes the importance of adjustment processes in the broader cross-cultural theory.

Additionally, this research introduces a nuanced understanding of how job autonomy, a concept typically studied in the context of motivation and job satisfaction (e.g. DeCarlo & Agarwal, 1999; Dong *et al.*, 2021), plays a conditional role in cross-cultural dynamics. It offers a fresh perspective on how autonomy interacts with cultural intelligence and cross-cultural adjustment, and thus expanding the theoretical boundaries of job design and autonomy.

## **Practical Implications**

This research also offers practical implications to individuals who consider working overseas as well as to organizations and corporations with employees from multiple cultural backgrounds. For ***individuals working or planning to work abroad***, there are several practical implications:

### *(1) Personal development.*

As the data suggests, cultural intelligence (both meta-cognitive and motivational cultural intelligence) significantly impacts cross-cultural adjustment. Individuals should invest time in developing their cultural intelligence. This could be done through several methods. In order to improve meta-cognitive cultural intelligence, one should keep continuous learning about cross-cultural knowledge through articles, books, news or social media, etc. (Earley & Peterson, 2004; Lin *et al.*, 2012) Also, it can be improved by engaging in more cultural interaction experiences, and seek feedback from peers, mentors, or friends from that culture will help to adjust strategies for future interactions (Engle & Crowne, 2013; Moynihan *et al.*, 2006).

Most importantly, one should do regular self-reflection and summary on cultural interactions, which can help to evaluate and refine their cultural understanding. Motivational cultural intelligence concerns the interest, drive, and confidence to adapt to a new cultural setting. To improve it, one should, firstly, stay curious to learn about other cultures and set clear goals and milestones to work through cultural challenges. Meanwhile, one should build confidence by starting with less challenging cultural scenarios and gradually move to more complex situations. And instead of being deterred by setbacks or misunderstandings, one should realize that cultural

skills can be developed over time, it's important to have a mindset of growth. Mentorship and training courses can also provide the guidance and insights to improve one's cultural intelligence.

(2) *Seeking better adjustment and adaptation.*

Given that cross-cultural adjustment has a clear linkage to performance and satisfaction, a successful adjustment phase can also lead to career benefits (Akhil & Liu, 2019; Cao *et al.*, 2012; Jyoti & Kour, 2015, 2017; 2018; Ramalu *et al.*, 2012). One should be mentally prepared for the challenges of adjusting to a new cultural setting in order to have a smoother transition. Besides, individual should recognize the importance of cultural norms and skills, beyond job-related skills. This can be learned in both formal and informal interactions with colleagues and locals from the host country, as well as cultural exchange programs and cultural events.

Additionally, building a local network can not only assist in quicker cultural adjustments but also provide an avenue for seeking advice on navigating challenges that come with working in a different cultural setting. Eventually, regular feedback and reflection are essential. Individuals working abroad should regularly seek feedback and engage in reflective practices to continually adjust and align themselves with the new environment.

(3) *Seeking autonomy.*

For those considering international positions, negotiating roles with a degree of job autonomy might be beneficial. Since there's a strong association between high autonomy and better cross-cultural adjustment, individuals who possess higher autonomy have more flexibility to make decisions best suited to the cultural context, thus enhance their cultural adjustment. And if the position has very limited autonomy, it's even more crucial to develop the ability to understand and adapt to different cultures and have strong motivation to acculturation, this will lead to better cross-cultural adjustment and hence benefit performance and satisfaction.

As for *organizations and corporations*. Traditionally, firms have emphasized job knowledge and technical competence while selecting candidates for global positions (Sinangil & Ones, 2001). Yet these criteria might not be sufficient to ensure the success and optimal performance of personnel stationed outside their native territories (Black *et al.*, 1991). Certainly, the findings and analyses provided earlier also have several implications for organizations that employ foreign country nationals or are involved in deploying employees for international assignments:

1) *Enhance selection process.*

Organizations should look beyond just job knowledge and technical competencies when selecting employees for international assignments. Cultural intelligence should be considered as a critical

attribute, given its significant impact on cross-cultural adjustment, performance, and job /life satisfaction.

#### 2) *Training and development.*

Organizations should invest in training programs focused on increasing cultural intelligence among their employees sent overseas or foreign employees working in host countries. Such training can include pre-departure training, onboarding programs, cultural and language learning courses, mentorship, etc., (Earley & Peterson, 2004; Koo Moon *et al.*, 2012; Kour & Jyoti, 2021; Littrell & Salas, 2005; Littrell & Salas, 2005). Improving employees' cultural intelligence, which in turn can lead to smoother adjustments in foreign environments, and finally benefit performance and satisfaction.

#### 3) *Communication and feedback mechanisms.*

Organizations should have regular communication and feedback sessions for their foreign employees (Moynihan *et al.*, 2006). It helps them understand their adjustment journey, challenges faced, and supports required. It's also a platform for employees to share their learning and insights from the foreign environment. In return, it might foster their sense of belonging and improve working outcomes.

#### 4) *Rethinking autonomy.*

Job autonomy is often seen as universally beneficial. However, the findings of this research indicate that lower job autonomy can strengthen the relationship between cultural intelligence and both performance and satisfaction through cross-cultural adjustment. Thus, a one-size-fits-all approach to autonomy may not work, especially in culturally diverse settings. Some employees, particularly those with high cultural intelligence, might benefit from more structured environments that provide clear guidelines and expectations. As for positions with higher autonomy such as managers, it's even more significant for them to receive and equip the proper cultural knowledge and norms

### **Limitations and Future Research**

Despite the study's comprehensive approach in assessing the experiences of international employees in Barcelona, several limitations must be taken into consideration.

- The relatively small sample size (n=96), despite representing diverse background of countries and industries, may not fully capture the nuances of such a varied population.
- The heavy reliance on personal networks and snowball sampling could introduce biases, skewing results towards particular demographics or experiences.

- The self-reported nature of the data could also lead to socially desirable answers or inaccurate introspection, especially given the subjective nature of constructs like cultural intelligence and cross-cultural adjustment.
- Moreover, the limitation of the context; while the study offers deep insights specific to Barcelona, the results might lack generalizability to other contexts.
- The study's cross-sectional research design only captures a singular temporal snapshot, omitting the evolving dynamics of cultural intelligence and adjustment over extended durations.

Future research should conduct more extensive data collection to achieve a better geographical and socio-cultural representativeness, and could greatly benefit from broadening the model by considering additional variables like organizational dynamics. A longitudinal approach, tracking participants over extended periods, would elucidate the long-term interplay of cultural intelligence, job autonomy, and cross-cultural adjustment, and their implications on job performance and satisfaction. Replications in diverse global cities would test the findings' wider validity and applicability, enriching the understanding of the interplay between these variables.

Additionally, this study offers a pioneer exploration into the role of job autonomy as a moderator between cultural intelligence, cross-cultural adjustment, and their consequent impacts on performance and satisfaction. While providing valuable initial insights, the complexities of these relationships warrant further in-depth investigation.

Future research will benefit on building upon this groundwork, expanding the understanding of the intricate interplay between these variables. For instance, future researcher should measure work and life satisfaction separately, life satisfaction and work satisfaction, while related, are distinct constructs. While work satisfaction is primarily influenced by professional factors, life satisfaction is more holistic, considering multiple facets of an individual's life. Job autonomy can impact both, but its influence might be more direct and pronounced on work satisfaction.

Also, future researches can focus on positions with higher job autonomy, to explore the role of their cultural intelligence, adjustment and impact on job performance and satisfaction together with other potentially important variables.

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