Cultural Quotient as a Critical Success Factor in Project Management: A Research within IT/Finance Multinational Companies in Ireland

Cultural Quotient as a Critical Success Factor in Project Management: A Research within IT/Finance Multinational Companies in Ireland

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Declaration

I declare that this dissertation that I have submitted to Dublin Business School for the award of Master of Business Administration (Project Management) is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references. Furthermore, this work has not been submitted for any other degree.

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Date: 9th January 2022

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"Ní bhíonn an rath acht mar a mbionn an smach" – There is no prosperity without discipline.

Abstract

This academic paper aimed to study 'Cultural Quotient as a Critical Success Factor in Project Management: A Research within IT/Finance Multinational Companies in Ireland', used the mixed research method to obtain data from two respondent groups: project managers and team members. The variables identified were cognitive, metacognitive, behavioral, motivational dimensions of CQ in the literature review. It has helped to form quantitative and qualitative questions for the IT/Finance cross cultural teams, and the research instruments for collecting the primary data were survey and interviews. The sample size of 147 project team members and 7 project managers data was analyzed using descriptive statistics and thematic analysis. The findings about cultural intelligence knowledge formation at individual level used cognitive dimension. This knowledge contributed to utilization of the ways and methods, related to CQ in project management for overcoming challenges present within IT/Finance domain.

The role of IT/Finance project managers relate to applying and sharing knowledge for preparing their team members to adjust cultural distances among multi-cultural groups.

Proficient IT/Finance PM demonstrated the ability to mentor fellow team members, to develop competencies for cross-cultural adjustment behavior, drive self-efficacy, motivational, and behavioral expression to gain cultural intelligence to achieve project success.

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List of Acronyms

CCA - Cross-cultural Adjustment

CSF - Critical Success Factor / Critical Success Factors

CQ - Cultural Quotient / Cultural Intelligence

CQS – Cultural Quotient Scale

DV – Dependent Variable

eCQS – Expanded CQ Scale

EI – Emotional Intelligence

EQ – Emotional Quotient / Emotional Intelligence

GI - General Intelligence

GPT – Global Project Teams

IT - Information Technology

IQ – Intelligence Quotient / Cognitive Intelligence

IV – Independent Variable

MNC – Multinational Companies / Multinational Corporations (Organisations)

PM - Project Management

PM – Project Manager

PMBOK - Project Management Body of Knowledge

RQ – Research Question

Metacog CQ – Metacognitive Cultural Intelligence

Cog CQ – Cognitive Cultural Intelligence

Mot CQ – Motivational Cultural Intelligence

Beh CQ – Behavioural Cultural Intelligence

Chapter 1

Introduction

1. Background, Research Aims, Objectives

1.1 Background

The project management principles which use planning, organising, execution, monitoring and closure stages for achieving the goals and success are fundamental principles, which face many barriers. However, the success of the project management outcomes, depend on the resources, their skills and competencies, adopting a competitive way to manage factors impacting the project goals. While cost, time, resource allocation are the pillars of project fundamentals, the issues of effectiveness in project management outcomes, have gained attention from cultural perspective. There are a large number of project management failure cases, at different project life cycle stages, across industry sectors. Additionally, the cross-border projects often require emphasis on language and communication as a pre-requisite skill, which also require to manage different issues. Specifically, the challenges of global time-zones, virtual application of communication tools, loss of management control, inability to disseminate knowledge that creates divergence in project management processes, have affected the project success outcomes. The post-project dissection reveals in majority of the failed cases, the list of factors for the project success remains elusive. Deeper level root cause analysis, showed that project teams interacting, need to emphasize on developing social competencies in project management, being the primary criteria apart from behavioural, motivational, cognition facets. Such competencies link the project management teams, to gain ability to interact, understand and comprehend the range of uncertainties impacting the project.

The issue in a cross-border team interaction setup show, additional factors like specific project teams following their own norms, approaches and methods, distinct communication styles, values and organisational culture, decision-making styles, individual or group-based approaches to resolve a business issue. Differences in each of these dimensions impact the approach and the project management success.

As MNCs are deploying diverse team composition, the work environment accepting IT-enabled communication for project interaction, virtualising the inter-office communication, the role of project teams goes beyond the principles of project management to find success in their endeavours. Recent examples of Accenture failure in Hertz rental car case (District Court of New York, 2019) showed, cross-cultural skills to be linked to outcomes, while there is high degree of risk, if the project team members are not trained to understand culture, while dealing with different teams, departments in a business environment context.

In this research, an attempt is made to understand the significance of cultural quotient (CQ) in project management teams within IT/Finance Multinational Companies (MNC's) in Ireland.

1.2 Research Aims and Objectives

1.2.1 Primary aim

- To evaluate the significance of cultural quotient (CQ) as a CSF in project management in business consulting firms in Ireland.

1.2.2 Secondary aim

- To examine the impact of cultural quotient in managing multinational projects in Ireland.
- To evaluate whether CQ can be regarded as CSF while contributing to success or failure in managing projects in organisations.

1.2.3 Research objectives

1.2.3.1 Primary objective

- To understand cultural quotient on project management, and examine the impact on successful project outcome in Business consulting organisations from literature review

1.2.3.2 Secondary objective

- To examine the CQ strengths, weaknesses, negative and positive elements impacting project performance outcomes in business consulting organisations in Ireland

1.2.3.3 Secondary Sub objective

To find out gaps and recommend best practices in CQ for improving project performance outcomes in business consulting organisations in Ireland

1.3 Research questions

RQ1: How significant is the role of CQ as a CSF in project's success or failure?

• Is there any relationship between cultural quotient and project performance in the project success or failure?

RQ2: How significant is the capability of the project managers of being culturally intelligent while having direct alignment to the success or failure of projects?

• What are the evidences of employee and manager perception about CQ practices in project performance outcomes in business consulting organisations in Ireland?

1.4 Research rationale

What is the issue?

The ongoing globalisation of offices has integrated the business processes, communication leading to adoption of project management approach became a part of a PM role. The role of PM relates to setting project charter, goal setting, team building, resource planning within project budget (time and cost), risks outlined in stages for delivery to the client. The issue of project failure is not simply miscalculation of cost, time, manpower deployment, but instead higher-level issues of understanding the culture between cross cultural project teams, which impacts project outcomes at any stage of project life cycle.

Why is the issue important?

Each project team has team members and specific team culture which reflects in the manner members approach the project management tasks to achieve the final project goals. Ireland has been home to IT and Finance MNC's. The technicality of project success goes beyond the tools and PM methods. The culture is often an underrated factor in project success. It is essential therefore to compare CQ dimensions to understand how it impacts project management success factor.

Academic significance

Previous academic research has deliberated CQ as a factor, that helps to address challenges in multicultural project teams, aligning internal project stakeholders with other teams for achieving better project outcomes and performance (Konanahalli et al. 2014). The outcomes of this academic study contribute to Irish IT/Finance projects (interdisciplinary), which further focuses on significance of CQ as a CSF, in diverse team composition.

Business Significance

The outcomes of this research help to contribute to understand impact of CQ on projects and project team members, whom nowadays are part of internal team culture, while managing IT/Finance project management. It contributes to develop CQ in project teams for MNC's seeking effective management of complexities in business.

Chapter 2

Literature Review

2. Introduction to Literature Review

The purpose of this chapter is to critically review the existing theories and concepts linked to cultural quotient (CQ), and its key dimensions and how their impact on project performance. Meanwhile the concept of cross-cultural adjustment (CCA), its impact on CQ and task performance is reviewed. The literature narrows down to review the importance of CQ in project management (PM) and the potential outcomes.

2.1 Concept of Cultural Intelligence

According to Brislin et al. (2006), cultural intelligence relates to how individuals adapt and flourish when they encounter a situation, or an environment different to one in which they are socialised. In a business environment, a culturally intelligent manager is likely to make better decisions in cross-cultural settings, can conduct effective communications and negotiations with an overseas business partner, and motivate employees belonging to different other cultures (Imai and Gelfand, 2010).

As a form of intelligence, like emotional and social intelligence (Kumar et al., 2008; Elenkov and Manev, 2009; Brislin et al., 2006; Crowne, 2009), CQ relates to individuals' capabilities across varying cultures (Thomas, 2006; Ng & Early, 2006); other types of intelligence emphasise a specific element in a particular cultural context. A general definition of intelligence as given by Sternberg (1997) is the ability required to choose, shape, adapt to a particular environment. Meanwhile, Mayer et al. (2008) explain general intelligence (GI) as one that focuses on academic proficiency while emotional intelligence (EI) refers to the capability of an individual to interact and work effectively with others, and CQ implies the

ability to interact effectively with those belonging to culturally diverse contexts. Therefore, CQ is an explicit form of intelligence that stresses on the ability to understand, explain, and behave appropriately in situations typified with cultural differences (Hampden-Turner and Trompenaars, 2006; Ang et al., 2007). These abilities entail the acceptance of a certain level of cross-cultural confusion, the deferment of judgment of cultural values, and the aspiration to understand cultural differences. Moreover, CQ replicates a mechanism of interacting skills and knowledge, connected by cultural metacognition that allows individuals to adapt to, choose, and form the cultural elements of their environment (Thomas et al., 2008).

According to Earley and Ang (2003), CQ refers to a person's ability to work effectively in situations characterised with cultural diversity. Here, cultural diversity refers to the differences with regards to the cultural values and nationality and includes sub-cultures, differences in demographic factors such as age, professions, occupations, and aspects such as customs, language, and religion. CQ is better explained at an individual level than at a team level. The CQ concept overlaps with and complements the idea of a global mindset (Bucker and Poutsma, 2010) and both are indispensable requirements for appropriate intercultural interactions between people belonging to different professions. Bucker et al (2014) mentions the four components of intercultural competence as cognitive knowledge and skills, personal traits, motivation, and the potential for adaptive behaviour.

Ang and Van Dyne (2008) asserted that people with higher CQ are more capable of dealing with conflicting situations, encounter confusions, apply deeper insights to complex issues, and make reasonable adjustments to how they interpret, associate, and lead in the context of diverse cultures. CQ is a malleable (flexibly adaptable) state that can evolve and develop with time. Ang et al. (2007, p.337) explained CQ as a theoretical concept that is multi-dimensional and includes the four dimensions, as illustrated by Livermore and Soon (2015) in (Figure 1):

i) Metacognitive

ii) Cognitive

iii) Motivational

iv) Behavioural

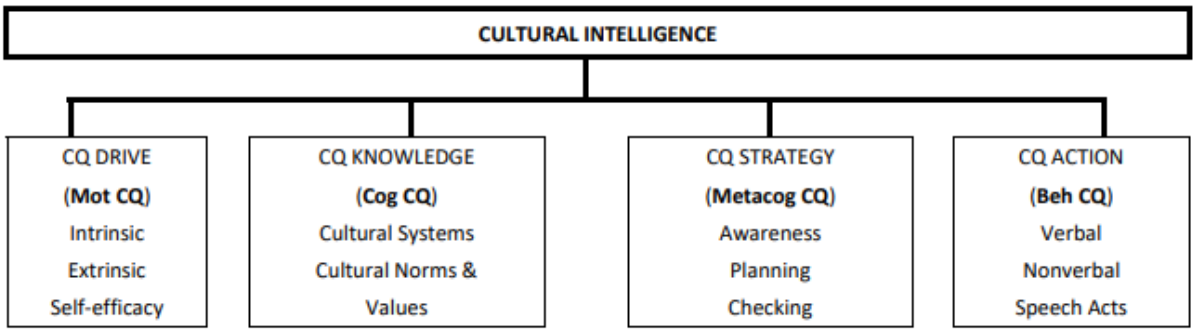

Figure 1: *Four-dimensional Model of CQ, (Source: Livermore and Soon, 2015)*

2.1.1 Metacognitive

The first dimension, **metacognition ('Metacog CQ')**, or precisely, metacognitive CQ is a psychological process used by people to gain and recognise cultural knowledge, including the knowledge to maintain control over their personal thoughts and mindset relating to culture. Metacognitive CQ entails a planning technique before an individual encounters cross-cultural intelligence, adjusting cultural awareness while interacting with others belonging to diverse

cultural background, and examines the accurateness of cultural knowledge throughout cross-cultural encounters. Here, planning refers to a specific pre-determined strategy of communicating with foreigners and includes a cautious preparation and deliberation of definite short-term or long-term goals of a person's activities in a culturally unfamiliar context. It is also about predicting specific measures and steps to be taken to accomplish success while interacting, negotiating, and dealing with foreigners. The perception of the world is through the lens of the culturally diverse counterpart and the foreigner is approached with a certain plan reflecting part of a specific strategy (Van Dyne et al., 2012). Nevertheless, the person should be aware of (or observe in detail) the intercultural situation and how this interaction affects him or his counterpart. Here, a person with high metacognitive CQ is knowledgeable about his/her cultural variances and abstain from judging intercultural communication unless the person has adequate information, is proactive, and can judge the situation from the foreign counterpart's viewpoint.

2.1.2 Cognitive

The **cognitive component ('Cog CQ')** refers to the manner in which a person interprets the similarities and dissimilarities between cultures. The dimension may comprise a deeper understanding of the economic and legal systems, arts and crafts, cultural and religious beliefs, language and etiquettes, customs and traditions, awareness of the interpersonal mechanisms of diverse cultures and subcultures, and familiarity with the fundamental framework of different cultural values (Hofstede, 2001). Cultural knowledge is objective and subjective wherein the former entails visible and observable artefacts and cultural practices, that is, familiarity with economics (socialism vs capitalism), political systems (democracy vs monarchy), legal systems (formal vs informal governance), social interaction norms, non-verbal behaviour (gesticulation, proximity), socio-linguistic theories (entailing language and vocabulary), or communication standards. On the other hand, subjective cultural knowledge refers to less visible (observable),

cultural psychology (norms, values, beliefs, and fundamental assumptions from which a particular society gets its spiritual inheritance (individualism-collectivism, masculinity-femininity, power distribution, and uncertainty avoidance). A person with a strong CQ element can apply a range of cultural grouping and characteristics to specific nations (for example, Brazilians openly convey their emotions; Japanese people communicate strongly based on the existing context) (Hofstede, 2001).

2.1.3 Motivational

The **motivational dimension ('Mot CQ')** relates to an individual's inclination to remain committed to adaptive behaviours while encountering an unknown cultural setting. It includes the intrinsic fondness for interacting with people from diverse cultures, having self-assurance on culturally different interactions and stress management while adjusting to unknown cultural settings. MacNab and Worthley (2012) noted that people with high motivational CQ divert their energy and concentration towards cross-cultural situations based on inherent interest and confidence in cross-cultural effectiveness. The underpinning theories of motivation are used to design the motivational sub-dimension of CQ (for example, self-determination theory, social cognitive theory, expected value models) (Van Dyne et al., 2012) that are based on temporal differences between people or contextual variables beyond a person's control. There exist three sub-constructs of motivational CQ comprising of external interest, internal interest, and self-confidence in their adaptive capability. An individual may be inherently motivated or evaluates a particular culturally varied situation for one's self, because it offers a feeling of intrinsic satisfaction. External interest refers to the pursuit (effort to accomplish) of tangible individual benefits from cultural experiences (example, superior job prospects, higher responsibilities, job promotion, and esteem). Self-confidence refers to the individual's capability in performing a specific task in a cross-cultural environment and how

the people feel confident in adapting to the unfamiliar environment and how they handle the stress it brings.

2.1.4 Behavioural

The **behavioural dimension ('Beh CQ')** relates to the ability of an individual to demonstrate proper verbal and non-verbal actions while interacting with individuals belonging to different cultures. This implies a sense of agility, or flexibility of behavioural responses that fit to varying cultures, and culturally varied situations, and the ability to adjust both verbal and non-verbal behaviours when required during a cross-cultural interaction (Ang et al., 2008).

2.2 Cross-cultural adjustment

CCA (Cross-cultural adjustment) is the extent of psychological comfort that an expatriate employee experiences with the different aspects of a host culture (Gregersen and Black, 1990). CCA is often a temporal and a fundamental outcome in an expatriate project that is likely to influence the development of a more distant expatriate adjustment such as job satisfaction (Takeuchi et al., 2002), stress and turnover intention (Hechanova et al., 2003), organisational commitment (Shaffer and Harrison, 1998), and job performance (Shay and Black, 2006; Kim and Slocum, 2008).

Expatriates experiencing a high psychological well-being signify that they possess a better understanding of the local environment, self-confidence, and better relationship with the nationals of the host region, and clarity about their career goals and personal development. Takeuchi and Chen (2013) emphasised three definite areas of CCA as identified in existing literature, namely, (i) general adjustment, i.e., the level of comfort with the basic living conditions such as food, health facilities, and climate; (ii) interaction adjustment, i.e., the expatriates' interaction with the nationals of the host region, and (iii) work adjustment, i.e., the job and/or managerial responsibilities, and performance standards.

Meanwhile Burke et al. (2006) emphasised the concept of cross-cultural adaptability that could be accomplished by an employee across three levels, namely, individual, team, and organisation. These researchers emphasised individual adaptability reflecting the groundwork for team and organisational adaptability. Besides, individual adaptability is directly affected by an employee's eagerness to interact and build relationship with others in an unfamiliar cultural context. CCA is described as a multidimensional construct that includes perceptual insights, emotional resilience, and individual autonomy. A culturally adaptable person can recover easily when situations go beyond control, build on the opportunity when exposed to culturally different behaviours and maintain personal identity.

Templer et al. (2006) considers CCA as the primary indicator and a determinant of expatriate performance, and success in international projects. Since CQ is a person's ability to become accustomed to a new cultural context effectively, it is expected that individuals with high CQ would adjust better in an unfamiliar cultural setting (Ang et al., 2007).

2.3 CQ and task performance

According to Campbell (1999), performance refers to the skills, knowledge, capabilities, and motivation of people directed towards role-specific behaviour, for instance, a formal task responsibility. Performance is positively linked to CQ. People belonging to different cultural backgrounds may encounter poor performance appraisals mainly because they fail to understand cultural variances in role expectations and fail to conform to the role expectations as found by studies conducted by Rose et al., 2010; Lee and Sukoco, 2010).

Ang et al. (2007) showed that people having deeper knowledge of their cultural context (metacognitive CQ) and those who can adapt their behaviour in response to cultural variances (behavioural CQ) are in a better position to comprehend and perform role expectations that are culturally fitting. Such individuals possess a more precise understanding of the expected role behaviours in culturally diverse work situations. Likewise, behavioural, and motivational CQ

elements are positively linked to performance outcomes (Kumar et al., 2008; Ng et al., 2012). Chen et al (2012) carried out research in the USA and found that an employee's motivational CQ is positively linked to his sales performance in a different cultural setting. Karma and Vedina (2009) argued that people with higher CQ are intrinsically motivated in cross-cultural environments, and this increases the potency of a person's continual effort towards their tasks in diverse cultural settings. Meanwhile, people with high behavioural CQ are likely to be more flexible in their verbal and non-verbal behaviours and actions to meet others' expectations, with lower misunderstanding, and high task performance (Kumar et al., 2008). Individuals with high motivational CQ tend to achieve superior task performance as they are likely to divert their energy and interest towards learning what is expected out of their roles, even if role cues are confusing. People with high CQ can better respond, interact, and adapt to the behavioural and cultural orientation of people belonging to different cultures instead of facing a culture shock, and consistently deliver better performances. They are more likely to collect and manipulate culturally intelligent information, perform on emotive, cognitive, and behavioural actions in response to the cultural signs of the host destination.

2.4 Cultural intelligence (CQ) and Cross-cultural adjustment (CCA)

In few cross-cultural studies such as those carried out by researchers such as Ramalu et al. (2011), a direct relationship between CQ and CCA was established. CQ has a direct impact on CCA, and it helps people to adapt more easily to the cultural settings of a host environment. Ramalu et al. (2011) found that metacognitive and motivational dimensions of CQ had a positive relationship with the three CCA components, that is, general adjustment, work adjustment, and interaction adjustment, respectively, as it enables the process of cultural learning and produces inherent interest in other cultures.

Meanwhile Chuang (2013) proposed that behavioural CQ is positively linked to CCA, and it has the capacity to create variations in individuals' behaviours and therefore easily adjust to an unfamiliar cultural setting. CQ's cognitive dimension is positively linked to CCA, especially this dimension is positively linked to interaction adjustment as established by Ng et al. (2012). Negative or unfavourable relationship between behavioural CQ and CCA may be evident when expatriate managers get involved in imitation rather than adaptive behaviours that are apt for diverse intercultural situations. Ramalu et al. (2011) and Ng et al. (2012) found that behavioural CQ was linked positively with the three CCA dimensions.

Managers who are culturally intelligent possess flexible behaviour which helps them to easily adjust themselves in culturally distinct, cross-cultural contexts. Cognitive CQ is perceived to be a knowledge constituent of CQ which positively links to the CCA dimensions. High CQ facilitates managers to better adjust to the cultural settings of a host culture.

2.5 Cross cultural adjustment and task performance

According to Gong and Fan (2006), task performance including project-based tasks are driven by deadlines and often referred to as in-role behaviours. Task performance is positively linked to CCA, implying that people who can adjust themselves in cross-cultural settings are better accustomed to performing the tasks assigned to them effectively. Ramalu et al. (2012) noted that expatriate projects bring significant challenges for organisational managers, while dealing with individuals belonging to diverse cultural orientation and backgrounds. CCA is a major determinant that leads to expatriate success in the assignments that they undertake (Wang, 2016) and lessens the extent to misunderstanding, confusion, and stress, which consequently leads to superior performance (Chen, 2019). Chen (2019) further asserted that managers working in a culturally different geographical location would be required to make different kinds of cultural adjustments in terms of language, behaviour, attitude, communication, dietary habits, formal and informal meetings, and working in different time

zones, and performance standards. Therefore, CCA is indispensable for expatriates to perform in-role task assigned while working in the host cultural environment.

After reviewing the concept and importance of CQ and CCA in actual task performance in organisations, the literature narrows to its importance and effectiveness in PM, especially IT (information technology) projects in the global, cross-cultural environment. However, there is no study on IT/Finance project management in multicultural teams' context, which is a research gap.

2.6 CQ in project management

According to Dibben et al. (2008), the distance between project vendors and client in an IT development project outsourced offshore increases the level of communication and coordination costs that can compensate the anticipated benefits from offshoring. Creque and Gooden (2011) argued that in offshore IT projects 'hidden costs' are still not well understood and therefore further research is indispensable to understand the influence of cultural differences between the vendor and client personnel in offshored IT projects. Wang (2016) asserts that one of the key risk factors in IT projects (offshored) arises due to the cultural distance between the vendor and clients. The cultural risks inherent in IT projects make them vulnerable to failure, and researchers mention this will "make or rupture an offshore project".

Extant research has mainly emphasised virtual teams in such projects as opposed to cultural dynamics that exist in global project teams (Fang et al., 2018). Therefore, Patel and Salih (2018) stressed the need to examine cultural characteristics in global project teams that include a more "contextual, behavioural, and dynamic perspective". Henderson et al. (2018) supported these views by suggesting more research in 'multinational-multicultural distributed global project teams' to include the different motivations, knowledge and working styles of project team members.

Various research in PM have examined cultural elements of projects and teams, for instance, Fellows and Liu (2016) drew from Weick's postulations of sense making and explained that culture provides an environment and a set of indications within which project team members make sense of each other and their shared endeavours. Messner (2014) proposed a measure of cross-cultural communication effectiveness in global project teams where the researcher explored how members use their intercultural skills in intercultural interactions. Findings indicated promise for recognising gaps in relevant skills, for instance, communication required for global teamwork. Konanahalli et al. (2014) used the cultural quotient scale (CQS) designed and validated by Van Dyne et al. (2008) as an instrument to measure the basic domains of CQ – cognitive, behavioural and motivations, including the additional dimension metacognition, and found that CQ significantly predicted work adjustment, interactivity, and behaviour of British expatriates working in global construction projects. Yitmen (2013), from a macro perspective of CQ, conducted research on more than 180 project team members in the construction industry in Turkey, and found positive relationships between CQ and 'cross-cultural competence' and 'strategic alliances'.

Previous research by Gregory et al. (2009, p. 238) conducted qualitative research to explore CQ within global IT outsourced project teams in Germany, and revealed how the dynamics of "behavioural, cognitive, and motivational CQ progressively led to the development of a negotiated culture".

Henderson et al. (2016) stated that in global project teams (GPT) where team members are connected virtually, setting up communication norms and aligning them with 'time is crucial' to function effectively and carry out project tasks skilfully. Here communication norms entail agreements among members to guide interactions, for instance, how they would initiate communication and respond effectively to the different forms of messages over geographies, time zones, and cultures; and how different kinds of information can be shared over different forms of media; or how the priority of different forms of messages will be established. Krumm et al. (2013) in their research indicated that arrangement of group norms may be less likely on culturally diverse teams. Nevertheless, Verburg et al. (2013) found that when project teams build up communication norms specifically, misunderstandings among members decline, consequently having a positive impact on project outcomes.

Research in the area of CQ indicates that it facilitates the process of team norming in culturally diverse teams (Adair et al., 2013), and enhances the effectiveness of communication in diverse environments (Bucker et al.,2014). Kiznyte et al. (2015) clarified that this may be partially due to the positive effects of multi-cultural communication practices and reducing the level of stress within project team members, analogous to communication with individuals from the same culture. Henderson et al. (2016) stressed on the role clarity of global project team members that moderates the relationship between members' communication norm aligned with their individual performance in projects. For project members, communication between themselves can be facilitated by increased clarity about their roles and responsibilities in the project. With the establishment of preliminary communication norms, project team members develop alignment with time and develop role clarity for themselves and in association with others (Henderson et al., 2016). Here, Kubicek et al. (2017) asserted that role clarity has a "connective influence" between CQ and elements of organisational culture such as role stressors in a cross-cultural context (ambiguity, conflict, misunderstanding) that are likely to "act as a channel either negatively or positively between CQ and organisational culture" specifically with regards to project task performance.

CQ studies have generated outcomes to show not only its effects of task performance in projects, but also job satisfaction. Studies by Bucker et al. (2014) found that CQ helps to increase the level of communication effectiveness and job satisfaction for project managers in globally led IT projects. Likewise, Barakat et al. (2015) found that job satisfaction enhanced the impact of CQ on project performance. Moreover, Diao and Park (2012) found a positive correlation between CQ and the level of job satisfaction in PM.

2.7 CQ as a Critical Success Factor in project management

When PM encounters the rapid pace of globalisation, complexities increase in terms of cross-cultural adaptation. Project managers may have to deal with different cultures at the same time while leading an expatriate assignment. A project may be set in a particular country, for instance, the home country of the project manager, or could be part of a large project program straddling across several nations and cultures. Project managers often experience situations where the various cultural aspects are integrated (Davis, 2011). The PMBOK (2008) presents the triple constraint (Figure 2), while PMI (2007) links culture to quality, where culture impacts on triple constraints in projects that include time (schedule), cost and scope. Keles and Battal (2017) assert that each of the constraint dimension requires careful interpretation against a cultural context and against possible misunderstanding, confusion, or disagreement amongst the members.

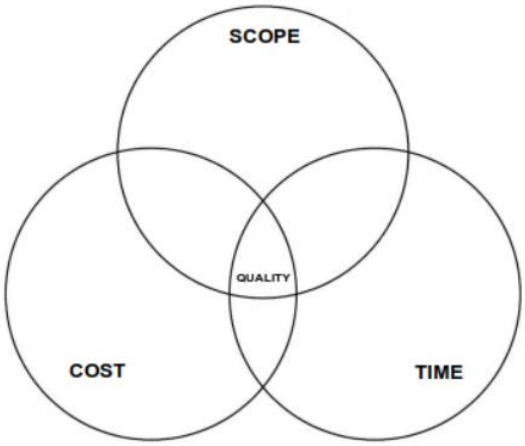

Figure 2: *Triple Constraints of the Project, (Source: Project Management.com, 2021)*

Schedule involves various perceptions of time, for instance, event time versus clock time, or a perception whether time is a constraint as it is limited. Besides the differences in monochronic versus polychronic cultural orientation may result in different ways of project scheduling, time management, and producing varying outcomes in the scheduling process (Alon et al., 2018). In monochronic culture such as the US, Canada, Switzerland and Germany, people prefer undertaking an event at a specific time and therefore value orderliness of tasks. In case of polychronic culture such as the Philippines, Mexico and India, people are more flexible about their work schedules and may undertake multiple tasks at the same time. Moreover, there may be different interpretations of time schedule, for instance, in some cultures; schedule is considered a project foundation while in other cultures it is perceived as a rough orientation.

Project scope includes different languages and verbal cues, especially when followed by non-native people, which could lead to misinterpretations or misunderstanding of project scope. Likewise, different perceptions towards project quality may possibly lead to over-fulfilling or under-fulfilling the scope. Martinsuo (2020) stated that goal orientation versus relationship orientation may lead to missed or incomplete scope.

As regards to the element cost, the attitude of project managers from the West that 'time is money' does not apply to most collectivist cultures. There exist significant differences in the importance and value assigned to money (cost), for instance, in Latin America until the dawn of the 20th century, money was not commonly used. The traditional mindset and values linked to money influence the way project team members from diverse cultural backgrounds produce and treat the project cost estimates and adhere to the budget.

Cultural differences may also occur from the general prioritisation of the aforementioned constraints, for instance, the perception ‘time is money’ implies equal value for project cost and schedule. Meanwhile in other ‘individualist’ cultures, the perception, ‘time is life’ exists and the comparative value of the project constraints may be deduced differently.

In the field of PM, Davis (2011) made attempt to emphasise the importance of CQ by defining the approach linked to CQ as not being culture-specific, that is, CQ being a free construct that could be related and used in any cultural situation. Thomas (2006) proposed a fundamental model of CQ which sits at the intersection of knowledge, behaviour, and mindfulness and stated that the ability of managers to adapt to these skills is crucial to shape intercultural interactions (Figure 3).

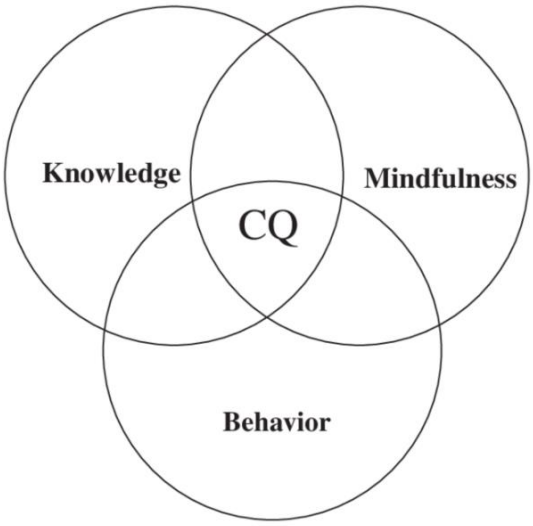

Figure 3: *CQ and Intercultural Interactions (Source: Thomas, 2006)*

Knowledge refers to the familiarity with own culture and the cultural differences that exist in cross-cultural contexts and how it can impact project execution and success. Thompson (2006) categorised knowledge as 'content knowledge' to include the overall knowledge about understanding the variances in one's own behaviour and that of others'; meanwhile, when content knowledge is linked to past experiences, it is referred to as 'assimilation' and any adjustment with past knowledge is accommodation. Therefore, knowledge processing at a cognitive level occurs enduringly and accordingly, knowledge develops.

2.8 Hypotheses formation

The above discussion in the literature review shows many facets of CQ within academic evidence. The discussion has reached a stage where there is a need for assumption, which is an estimation of the role of culture, CQ, PM and their relationship. It is certain that there are many facets of CQ and its dimensions when applied to PM. The assumption is directional in nature; either positively impacting or negatively impacting PM. Therefore, the main hypotheses that are linked to the current research are listed below:

2.8.1 Hypothesis 1

H_0: Cultural quotient does not impact positively on the management of projects

H_1: Cultural quotient impacts positively on the management of projects

The primary hypothesis of the research which relates to project team members and team leaders working in a multi-cultural environment is that cultural intelligence helps to build a quotient that positively impacts the management capability of projects. Here in this research context, the aim is to establish if CQ is a critical success factor for the success of the IT/Finance projects operating in a multi-cultural project environment. The assumption is cultural intelligence is a mediating variable impacting the dependent variable project success in the IT/Finance context in Irish projects.

2.8.2 Hypothesis 2

H_0: Strengths, weaknesses, positive and negative aspects of cultural quotient do not have impact on the success or failure of project management

H_1: Strengths, weaknesses, positive and negative aspects of cultural quotient have impact on the success or failure of project management

This hypothesis is linking both the team and managerial capabilities that assumes strengths, weaknesses, positive and negative aspects that gives a direction to the CQ and project relationship, either success or failure. This hypothesis is an outcome of PM fundamentals of cost, time, manpower triad against achieving the project scope, project schedules to reach the project goals. The assumption in the current research is backed by IT/Finance projects' success using CQ, where tools and methods also require dealing with inter-disciplinary teams (IT teams, Finance teams), behaviour, motivation and cognition in a multicultural project team setting across locations. The issue is contextual, for Irish MNC's, as diverse motivation, perception, cognition, working style of team members contribute towards successful project management outcomes.

2.8.3 Hypothesis 3

H_0: The ability of projects managers to be culturally intelligent is not important to the project success or failure

H_1: The ability of projects managers to be culturally intelligent is important to the project success or failure

The project governance and the role of project leader in driving the project successfully, is dependent on direction, plan of action, rules and norms, knowledge, apart from the PM principles that guide the project stages. The project manager who is dealing with interdisciplinary teams adds to the complexity of the goals achievement and achieving the outcomes. In the current research context, the role of IT project managers managing IT/Finance

projects have greater number of variables that are adding to the complexity of the projects. Hence, the ability of PM leadership using CQ as a factor to drive project success is an assumption for IT/Finance projects within Irish MNC's. It is hypothesized as follows:

Conceptual Framework:

The above list of hypotheses relates to the independent and dependent variables forming a relationship which is illustrated below within (Figure 4).

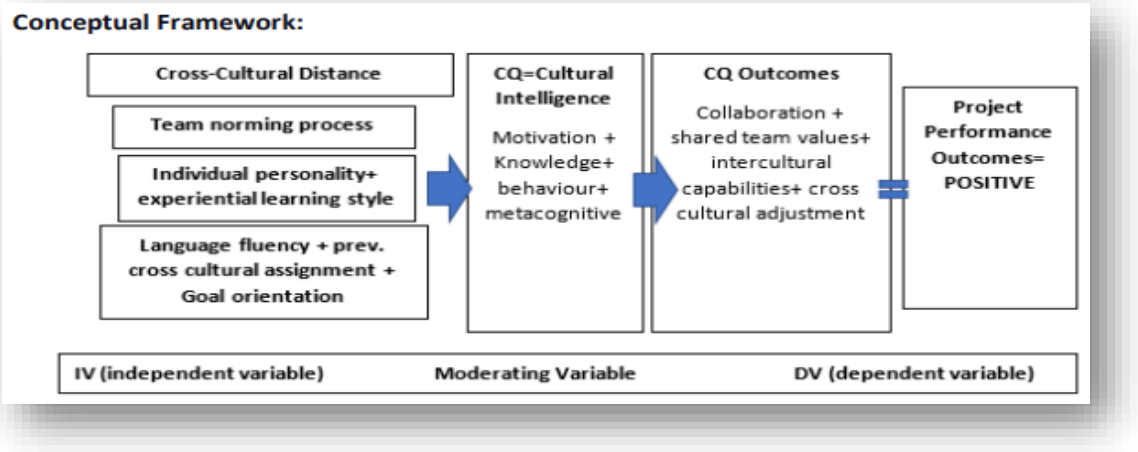

Figure 4: *Conceptual Framework (Source: Author)*

Chapter 3

Research Methodology and Methods

3. Introduction to Methodology and Methods

Research methodology is a general approach followed by a researcher to conduct a research project systematically. In this chapter, the various components included in the methodology, namely, the philosophy, approaches, strategies to collect data, choice of research methods, and data analysis techniques are discussed in context of the research topic, problems, and the questions formulated for investigation. The following is the research onion model designed by Saunders et al. (2009) that provides the basic framework to select each of the components step-by-step and develop the methodology to conduct the research project systematically.

3.1 Concept of Research Onion

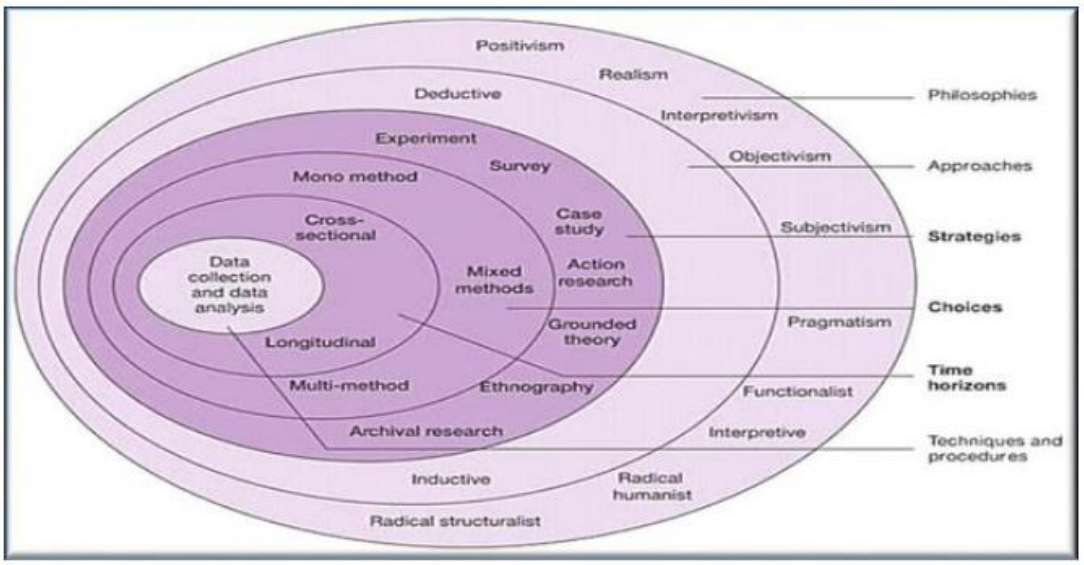

Figure 5: *Research Onion model, Source: Saunders et al. (2009)*

Peeling each layer of the onion helps to choose the research philosophy, the research approach, subsequently the strategies to collect data, and choices implying whether mono method, mixed, or multiple methods needs to be chosen for the study. The last layer indicates whether to choose the cross-sectional or the longitudinal process and finally the data collection and analysis.

3.2 Philosophy

The first layer of the research onion includes the philosophies that refer to the values, beliefs and assumptions that determine a researcher's perception about the external world (Bridges and Smith, 2006). Philosophies also refer to the paradigm that is a research culture, comprising of a set of assumptions and beliefs that researchers possess with regards to the nature of a study (Easterby-Smith and Thorpe, 2010). A paradigm, therefore, includes a definite pattern, framework, outline/structure of academic or scientific ideas, postulations, or values to be followed. Ontology and epistemology include what is generally known as an individual's worldview which majorly influences the apparent relative significance of the different aspects of reality (Slevitch, 2011). There exist two possible paradigms of objectivism and constructivism and each has its own way of viewing the world.

3.2.1 Positivism

Positivism implies exploring the social reality based on observation and reasoning as the scientific ways to study human behaviour (Easterby-Smith & Thorpe, 2010). The extraction of true knowledge depends on observation through human senses and scientific observation of events through statistical testing or experimentation. Positivists, at an ontological level believe that true knowledge is objectively obtained and can be measured using characteristics that are independent of the researcher, implying that knowledge can be quantified and measured (Slevitch, 2011).

The followers of positivism adopt scientific methods so that the process of knowledge generation can be systematised through quantification to ensure higher accuracy in the description of events, variables, and the relationship between them (Kuipers, 2013). In simple terms, positivists uncover the hidden through using scientific interpretations, for instance, statistical testing of data using empirical means, observation, and finally arriving at measurable outcomes.

3.2.2 Interpretivism

Interpretivism opposes the philosophical ideology of positivism and considers the involvement of human subjects essential to understand their viewpoints, perceptions, and experiences of the outside world. Therefore, the followers of interpretivism embrace an inter-subjective, ontological, and epistemological belief that true knowledge is socially constructed (Easterby-Smith & Thorpe, 2010). They discard that true knowledge can be obtained through scientific methods and data testing, rather than subjective views and insights of those being affected by social situations are the ones who could narrate their experiences and feelings to be carefully analysed, judged and evaluated to understand what actually exists (Kuipers, 2013). Researchers make attempts to understand the meanings that individuals or groups attach to events, through interviewing, or observing their behaviour in a social setting.

3.2.3 Realism

Similar to positivism, realism also focuses on conducting a scientific enquiry instead of relying adequately on human understanding and perceptions. However, realism assumes that the objects exist in the social world are independent of human thinking.

3.2.4 Justification for following pragmatism

Pragmatism discards the belief that only a specific philosophical approach should be followed in a particular study, for instance either positivism or interpretivism. Pragmatism is an action-oriented and based on the belief 'what works well?' instead of relying too much on abstract concepts and assumptions (Easterby-Smith & Thorpe, 2010). Therefore, it supports multiple methods in study, for instance, integrating the quantitative and qualitative methods as an action-based strategy to collect comprehensive data, and overcome the weaknesses inherent in each method.

In relation to above, this study has followed a pragmatic approach, used mixed-methods and therefore involved both employees and managers of the chosen companies. Quantitative data was collected from employees through online surveys by distributing the closed-ended questionnaires (Appendix 1) while qualitative data was collected from the managers through online interviews using open-ended interviews.

3.3 Research approach

Inductive and deductive are the two research approaches followed in line with interpretivism and positivism, respectively. The inductive logic is meant to develop new knowledge based on the emerging pattern of data (Heit and Rotello, 2010). On the other hand, the deductive logic is meant to test existing knowledge and theories to either validate or reject the theoretical assumptions.

3.3.1 Inductive approach

Inductive approach aims at knowledge development and aligns with the exploratory research, especially where the researcher does not have complete knowledge of the research problems. Inductive logic follows a bottom-up approach that starts with observation, understanding the patterns of data that emerge in a social enquiry, formation of tentative hypothesis and finally the development of new theory (Heit and Rotello, 2010).

3.3.2 Deductive approach

The deductive approach aims at testing theoretical concepts and assumptions and aligns with the descriptive research, especially where the researcher has a fair understanding of the problems that underpin the study (Heit and Rotello, 2010). As opposed to the inductive logic, the deductive approach starts with a critical, comprehensive review of existing literature that underpins the research topic, followed by the identification of knowledge gaps, creation of hypothesis, statistical data testing and observation, and finally the confirmation, or rejection of the theories reviewed in the literature.

3.3.3 Justification for following the abductive approach

Pragmatically, the abductive research was followed by combining the inductive and deductive approaches in this study. This required going forward and backwards between each approach to test existing theories while adding value to existing knowledge/literature. The deductive approach was followed to test the underpinning theories of CQ and its dimensions, namely, metacognitive, cognitive, motivational, and behavioural in context of cross-cultural settings where expatriate projects are undertaken. The sets of hypotheses developed in the literature review were tested using statistical testing of quantitative data and observation.

The inductive approach helped to study the patterns of data that emerged and contribute to the existing knowledge by identifying how CQ acts as a CSF within IT/Finance projects in Ireland, leading to project success.

3.4 Research strategy and approach

3.4.1 Quantitative method

Quantitative research includes the collection of numerical data that can be statistically interpreted to conduct rigorous data testing to test hypothesis (Antwi and Hamza, 2015). It is variable-centred and helps to identify the relationship between a set of variables incorporated in the conceptual framework of the study. For instance, the **independent variables** in the study

comprised of CQ and its dimensions including metacognitive, cognitive, motivational, and behavioural that influence project outcomes. The **dependent variables** in the study comprised of project outcomes in terms of project efficiency, performance, project teams' behaviour and coordination, and project success.

Quantitative method includes data collection strategies such as experiments, questionnaires, and survey. However, in this study, quantitative data was collected through online survey which included the distribution of structured, closed-ended questionnaires.

3.4.2 Qualitative method

Qualitative research incorporates the collection of rich, descriptive, in-depth information reflecting the subjective views of human subjects (Qu and Dumay, 2013). Therefore, qualitative research is human-centred and helps to capture the subjective views, perspectives, experiences, and emotions that the subjects associate with events. This research rationalised the meanings that individuals affix to events, facts, and social issues and data as collected in their natural setting. **Qualitative method** includes data collection strategies such as observation, interviews, focus group, case study and action research (Qu and Dumay, 2013).

3.4.3 Mixed methods

The mixed design was followed in this study by combining the quantitative and qualitative methods (Figure 6). This involved conducting online survey to collect quantitative data and interviews to collect qualitative data in two different phases. Mixed methods help to include the benefits of each method and eliminate the weaknesses inherent in each (Almalki, 2016). It also helps to conduct a more rigorous data analysis through cross-verification and triangulation of results obtained from each method and thereby strengthens the validity of the overall findings (Almalki, 2016).

Figure 6: *Mixed methods, (Source: Author)*

3.5 Strategies for data collection using mixed method

3.5.1 Online survey

Online survey was followed to collect data because it was cost-effective and flexible to carry out. Using LinkedIn helped to distribute questionnaires to respondents in Ireland the questionnaire developed for the online survey was designed using the five-point Likert Scale. The Likert scale tool helped to capture the perceptions and attitude of participants on a fixed range for a given statement, or a question (Joshi et al., 2015).

3.5.1.1 Advantages and disadvantages of survey

Table 1: *Advantages and Disadvantages of survey (Source: Author)*

Advantages	**Disadvantages**
Cost-effective/inexpensive to conduct as online survey does not require a specific venue	Low response rate as many participants may ignore the surveys
Flexible as it can be distributed to the participants using different online modes such as emails, social media, or online survey tools such as Google Forms	Structured, closed-ended questionnaires distributed in a survey fails to capture the elaborate response of the participants and may have lower validity than other questionnaire types (Goertzen, 2017)
Can be conducted remotely and therefore overcome the issue of geographical dependence (Goertzen, 2017)	The possibility of obtaining biased data cannot be ruled out because participants may not give accurate responses.
Helps to collect voluminous data from a large sample size in a relatively limited period	Not very effective for exploratory research that require in-depth, descriptive information.
Survey data can be statistically analysed and tested, and this ensures higher validity, reliability, interpret multiple variables, and maintain statistical significance (Goertzen, 2017)	
Generalise the results obtained from the questionnaires (survey) to a wider population.	

3.5.2 Online interview

In this study, qualitative data was collected through interviews which included asking semi-structured, open-ended questions (Appendix 2). Online interviews through Google Meet were easier to conduct, as opposed to conducting focus group or action research. Interviews helped the researcher (acting as an interviewer) to ask questions, cross-question, probe, built rapport and clarified any emerging doubts. Open ended questions also allowed the respondents to share their understanding, with increased depth views, insights, and experiences without any restriction. This helped to collect in-depth information relevant to the research.

3.5.2.1 Advantages and disadvantages of interview

Table 2: *Advantages and Disadvantages of interview (Source: Author)*

Advantages	Disadvantages
Interviews ensure a high response rate (Qu and Dumay, 2013)	Possibility of the inclusion of researcher's bias while making judgments and situational bias (Qu and Dumay, 2013).
Researcher's involvement as an interviewer provides better control over the data collection process, and therefore ensures a controlled answering order (Qu and Dumay, 2013)	Could be time-consuming especially if the participants elaborate too extensively on a particular idea.
Helps the researcher to cross-question, clarify any emerging doubts, build rapport with the participants, and gain in-depth insights into the agenda being discussed (Qu and Dumay, 2013).	Possibility of participants getting deviated from the topic being discussed, thereby affecting the validity.
Semi-structured interviews allow flexibility in terms of editing, modifying, deleting, or adding an open-ended question depending on the ideas and doubts that emerge during the questioning process.	

3.6 Population and sampling

The **population** included the employees and managers working within IT/Finance Multinational organisations in Ireland, where the population size is around 150-200 people, approximately.

The sample chosen for quantitative data collection (online survey) that included the employees working within IT/Finance Multinational organisations, who have been at least part of the project management roles within the IT/Finance projects. The total sample size comprised of 147 employees, who are/were a part of IT/Finance project management teams.

The sample for qualitative data collection (online interviews) included the senior managers and mid-level managers working within the IT/Finance Multinational organisations in Ireland. It was ensured that these management level employees had worked for at least one project management life cycle experience in international level or as project management expatriates in other countries. The total sample size comprised of 7 project managers for interviews.

3.6.1 Sampling process

The sample for both online surveys and interviews were selected in two different phases using **non-probability, purposive sampling.** Purposive sampling focuses on specific characteristics of an identified population from which the sample is chosen based on certain criterion that fits with the research requirements (Antwi and Hamza, 2015). The criterion in this research included selecting both male, female, or other participants, age (>20 years), tenured (>1 years), with practical, hands-on experience within IT/Finance projects for both employees (survey) and managers (interviews).

In the first phase, purposive sampling was followed to purposefully select employees including the aforementioned criterion. In the second phase, purposive sampling was followed to purposefully select senior and mid-level managers or who had worked as 'expatriates' in international project management roles, to take part in the interview. This ensured that they were aware of CCA and CQ, encountered cross cultural differences, and had the opportunity to use their CQ to manage project performance. The participants took part in the survey and interviews on a voluntary basis and not through any coercion, or pay-out.

3.6.2 Sampling and data collection procedure

Table 3: *Sampling and data collection procedure (Source: Author)*

Population	**Sampling technique**	**Criteria**	**Sample size**	**Research method**	**Data collection strategy**	**Instrument**
Employees from IT/Finance Multinational organisation in Ireland	Purposive sampling	Age >20yrs. Gender-both M/F Tenure>1 years Experience – IT/Finance projects	147	Quantitative	Online survey	Structured, closed-ended questionnaires, use of 5-point Likert Scale tool (Joshi et al., 2015)
Senior and mid-level managers of same IT/Finance Multinational organisation in Ireland with exposure to Finance/IT projects	Purposive sampling	Age >20yrs. Gender-both M/F Tenure>5 years Experience – IT /Finance projects	**7**	Qualitative	Online interviews	Semi-structured, open-ended interview questions

3.7 Time horizons

As demonstrated in the research onion model, time horizons include cross-sectional and longitudinal research. Cross-sectional research entails data collection from a particular population in a single time rather than multiple phases over an extended period. As opposed to this, longitudinal research implies data collection from the same sample using the same instrument in multiple phases over a prolonged period which helps to examine the extent of reliability. However, this study involved a cross-sectional enquiry due to time and budgetary constraints and data was collected from a specific set of employees and managers in a defined time length.

3.8 Validity and reliability

Validity in research refers to the extent to which the research has measured what it intended to measure. It explains how well the data collected through an empirical investigation covers the actual area of the investigation. To maintain high data validity, it is essential to adopt an appropriate methodology, a valid instrument for data collection and an appropriate sample so that the results obtained from the enquiry represents true findings among similar sample outside the study (Alghamdi, 2013). To maintain validity in this study, the research instrument for data collection was carefully designed in context of the research questions by clearly identifying the dependent and independent variables. The use of appropriate statistical testing also ensured that the data interpretation was carefully carried out to reach valid outcomes.

Reliability is the extent to which consistent answers can be achieved if similar research is conducted over a period using the same set of instruments more than once (Alghamdi, 2013). The issues of reliability are closely linked to the researcher's subjectivity, the personal judgments may involve bias and therefore reliability may be compromised. To maintain reliability the researcher's own judgments were not included and the results were based on

careful observation. Nvivo software (qualitative thematic analysis software) was used to carefully organise, interpret and evaluate qualitative data to avoid personal judgments.

A small pilot testing was carried out to identify the shortcomings in the questionnaires and interview questions. Based on the feedback, these were edited and rectified to develop the final set of instruments. The design, layout, sequence and wordings of the questionnaires and interview questions, sequence of questions was maintained accurately.

3.8.1 Validity and reliability of the instrument

The validity of an instrument entails the degree to which a measurement can measure that which it purports to measure. For content validity, the instrument, together with the study objectives, was presented to the researcher's supervisor for face validity of the research instrument. Comments and corrections made by the researcher's supervisor were used to improve the instrument. To ascertain instrument reliability through the Cronbach alpha coefficient (α) in the SPSS software was used. The Cronbach alpha coefficient (α) values for the research variables were (0.763). The instrument yielded good reliability based on the decision rules in Table 15. Therefore, the instrument was considered acceptable for the study. The full reliability of the questionnaire is contained in Appendix 3 Tables 15 to 18.

Table 4: *Reliability of the Research Instrument (Source: Author)*

Research Tool	Cronbach's Alpha
Cultural quotient (CQ) and others	0.763

The decision rule states that: Very Good Reliability = Result 0.80 -0.95; Good Reliability Result= 0.70 -0.80; Fair Reliability Result= 0.60 -0.70 and Poor Reliability Result = Less than 0.60 (Decision rule adopted from Sekaram & Bougie, 2010).

3.9 Resources and apparatus

The apparatus included a personal laptop with MS-Office software, SPSS, Nvivo, Otter.AI, Survey Monkey and internet connection. The laptop was password-protected which was used to distribute the questionnaires online to the participants selected to take part in the survey. The laptop was also used to conduct online interview using video conferencing via 'Google Meet' by connecting with the online participants.

3.10 Data analysis

The quantitative data obtained from the surveys was analysed using descriptive and inferential statistics that helped to the sets of hypotheses. It helped to analyse a sample of data and use the outcomes to draw conclusions about the population from which the outcomes were drawn. By testing hypotheses, the causal relationships between the variables 'CQ' and 'project efficiency' and 'project success' were established. The statistical results were carefully interpreted by revisiting the research questions, aims and objectives designed in the first chapter.

On the other hand, the in-depth, subjective, qualitative information collected through interviews were processed using the NVivo software. It helped to classify, sort, code, examine and establish relationships between variables, and organise data systematically. The transcripts prepared during the interviews were imported into the NVivo software, coding, and notes (memos) of the emerging ideas were identified. The unstructured information coded systematically helped to observe and understand the emerging patterns, identify new pieces of findings, and draw conclusive outcomes.

3.11 Ethical considerations

Informed consent was taken before sampling the participants to take part in the data collection process. This ensured that the participants were happy to participate, and their

participation was without any coercion and voluntary. Their rights were protected in terms of avoiding any kind of physical or mental injury.

Anonymity of respondent's names was maintained and therefore their names and other personal details were kept confidential. The data/information shared by the respondents in the survey and interviews were kept confidential. The responses were stored in a personal laptop (password-protected) so that no unauthorised individuals could gain access to the confidential data. The participants were informed about their rights to withdraw from the survey and the interviews, respectively at any time they intended to.

Chapter 4

Analyses of Data and Results

4. Introduction to Analyses of Data and Results

This chapter discusses the quantitative and qualitative results obtained and the data analysis from responding groups for the research. the quantitative analysis has been performed using SPSS statistical software suite, while qualitative data analysis has been performed using NVivo data analysis software.

4.1 Summary analysis of Quantitative analysis

4.1.1 Demographic data analysis

The survey data respondents were employees working within IT/Finance MNC's in Ireland. Demographic data represents respondents' socioeconomic status and provides relevant actionable decision-making facts and figures. In this study, demographic variables are respondents' gender, age, education, one full life cycle project experience within IT/Finance organization in the last 2 years, categories best describe respondent's employment status, size of respondent's organization, respondent's work duration in a company, respondent's industry of work, respondent's nationality, abroad work experience, work experience with cross-cultural community and related cross-cultural experience. Socioeconomic status and indicators are important for the research, and for the profile of the responding groups in a post analysis perspective in terms of their diverse characteristics and their relation to their responses in the contextual questions.

Key highlights of the demographic responses that are relevant to the research are that adults aged (25-34) and (34-44) with third level degree (Bachelor's degree and Masters) forming most of the representation. Importantly more than half of the respondents stated that they do have one full life cycle project experience within IT/Finance organization in last 2 years' which demonstrate the respondents' proficiency in the PM field. Respondents have experienced working in MNC's, majority of the respondents represent professionals who worked from 0 to 3 years and 4 to 6 years. Their experience primarily ranged within IT, Finance and Fintech sectors. Primary cohort had an exposure of working abroad which has averaged from 1 to 9 years. The cross-cultural exposure has been ingrained as majority of them are positive with exposure to other culture over 5 years. It is evident that demographic profile of the respondents relates to specific dimensions of having experience in all that the research is looking for as a respondent group.

Respondents have had cross-cultural work experience and were employed and were part of the team. This is an important parameter and hence the responses showed majority of respondents stated they assess their cross-cultural experience as good and very good which further implies the respondent group was relevant for the research study.

The representation of the sample in the team members IT/finance project and a CQ's significance for project success shows that the members have a fair understanding about the topic issues, constructs, dimensions that are part of their everyday life in the workplace. They have an extensive cross-cultural experience being a part of multicultural teams. This reflects in their communication and business etiquettes, and most importantly shaping their ability to relate to CQ for this research.

For the illustration of the descriptive statistics of demographic data of the survey, please refer to Appendix 4.

4.1.2 Contextual data analysis

The contextual section comprises of cognitive, metacognitive, behavioural, motivational dimensions of CQ.

4.1.3 SPSS: Test of Hypotheses

In this section, the hypotheses statements were tested to prove if the findings of this research are statistically significant and unlikely to have occurred by chance.

Hypotheses can be defined as:

H_0: Variable has positive impact on project success if observed mean is >=4 (agree or strongly agree)

H_1: Variable has negative impact on project success if observed mean is <4 (agree or strongly agree)

The decision criteria states that if the p value is less than the pre-set level of significance ($p<0.05$), the null hypothesis is rejected. On the other hand, if the p value is greater than the pre-set level of significance ($p>0.05$), the null hypothesis is not rejected. One sample t-test was used to test research hypothesis. One sample t-test is applicable, if population mean is known. In this case population mean can be considered as 4 or above (agree or strongly agree).

Hypotheses testing can be done at 5% confidence interval as pre-set level of significance value. The research hypotheses 1 outlined in the proposal were:

4.1.3.1 Hypotheses 1

H_0: Cultural quotient does not impact negatively on the management of projects

H_1: Cultural quotient impacts positively on the management of projects

Cognitive Dimension of CQ:

The analysis has taken the median 4, (within the scale of 1 to 5) for computing the t-test for the cognitive dimension of CQ (Table 5).

Table 5: *Cognitive Dimension of CQ (Source: Author)*

One-Sample Test	Test Value = 4					
					95% Confidence Interval of the Difference	
Cognitive	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
I know the rules (e.g., vocabulary, grammar) of other languages	-7.270	137	.000	-.710	-.90	-.52
I know the cultural values of other cultures	-4.056	137	.000	-.312	-.46	-.16
I know the rules for expressing non-verbal behaviours in other cultures	-7.647	137	.000	-.616	-.78	-.46
As a team member in IT/Finance projects we are wary about expressions before other culture members	-7.028	137	.000	-.507	-.65	-.36

The results for all the items (vocabulary and grammar, cultural values, rules for expressing non-verbal behaviours, wary about expressions before other culture members) show that at 5 % confidence interval has significant value 0.000 which supports enough evidence to reject null hypothesis, means CQ have a positive impact on project success.

Hence, the Cognitive approach also supports the alternative hypothesis 1 (H_1): Cultural quotient impacts positively on the management of projects.

4.1.3.2 Hypotheses 2

H_0: Strengths, weaknesses, positive and negative aspects of cultural quotient do not have impact on the success or failure of project management

H_1: Strengths, weaknesses, positive and negative aspects of cultural quotient have impact on the success or failure of project management

Behavioural Dimension of CQ:

Table 6: *Behavioural Dimension of CQ (Source: Author)*

One-Sample Test	Test Value = 4					
					95% Confidence Interval of the Difference	
Behavioural	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it	-3.953	137	.000	-.297	-.45	-.15
I use pause and silence differently to suit different cross-cultural	-5.695	137	.000	-.413	-.56	-.27
I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it.	-1.903	137	.059	-.116	-.24	.00
I change my non-verbal behaviour when a cross-cultural situation in IT/ Finance project requires it	-6.696	137	.000	-.507	-.66	-.36
I alter my facial expressions when a cross-cultural interaction in IT/ Finance project requires it.	-10.859	137	.000	-.891	-1.05	-.73

The results for all the items (verbal behaviour accent-tone, pause and silence, change my non-verbal behaviour, alter my facial expressions) show that at 5 % confidence interval has significant value 0.000 which supports enough evidence to reject null hypothesis, means it has a positive impact on project success. There is only one item in the behavioural dimension construct that has found no support of evidence in t-test, as rate of speaking at 5 % confidence interval has significant value .059 which exceeds the 0.50 value. Therefore, there is no evidence and null hypothesis for the hypothesis for this item is applicable. This implies that 'I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it' is not a strength. However, the entire behavioural dimension has four other items (verbal behaviour accent-tone, pause and silence, change my non-verbal behaviour, alter my facial expressions) which has scored significant value 0.000 at 5% confidence interval that confirms the alternate hypothesis.

Hence, Behavioural dimension of CQ for IT/Finance PM teams, also support the Alternative Hypothesis 2 (H_1): Strengths, weaknesses, positive and negative aspects of cultural quotient have impact on the success or failure of project management.

4.1.3.3 Hypotheses 3

H_0: The ability of projects managers to be culturally intelligent is not important to the project success or failure

H_1: The ability of projects managers to be culturally intelligent is important to the project success or failure

Motivational Dimension of CQ:

Table 7: *Motivational Dimension of CQ (Source: Author)*

One-Sample Test	Test Value = 4					
					95% Confidence Interval of the Difference	
Motivational	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
I interact with people from different cultures as a part of IT/Finance job	4.771	137	.000	.326	.19	.46
I am confident that I can socialize with people of multiple cultures that are unfamiliar to me	3.995	137	.000	.261	.13	.39
I am sure I can deal with the stresses of adjusting to a culture that is new to me	1.557	137	.122	.087	-.02	.20
I am confident that I can get accustomed to conditions in a multicultural IT/ Finance team environment	3.152	137	.002	.203	.08	.33
I take initiative to resolve culture-based misunderstandings in our IT/Finance project team	-3.661	137	.000	-.246	-.38	-.11

The results for all the items in motivational dimensions of CQ, ‘’interact with people from different cultures, confident that I can socialize, get accustomed to conditions in a multicultural environment, initiative to resolve culture-based misunderstandings’’ show that at 5 % confidence interval has significant value 0.000 which supports enough evidence to reject null hypothesis, means it has a positive impact on project success. There is only one item in motivational dimension of CQ ‘’can deal with the stresses of adjusting to a culture” that has found no support of evidence in t-test, as rate of speaking at 5% confidence interval has

significant value .122 which exceeds the 0.50 value. Therefore, there is no evidence and null hypothesis for the hypothesis for this item is applicable. This implies that 'can deal with the stresses of adjusting to a culture" for IT/Finance projects managers to be culturally intelligent, is not important to the project success or failure. However, the entire motivational dimension of CQ, have four other items (interact with people from different cultures, confident that I can socialize, get accustomed to conditions in a multicultural environment, initiative to resolve culture-based misunderstandings) has scored has significant value 0.000 at 5 % confidence interval that confirms the alternate hypothesis.

Hence, Motivational approach also supports the Alternative Hypothesis 3 (H_1): The ability of projects managers to be culturally intelligent is important to the IT/Finance project management success or failure.

4.2 Qualitative interview analysis

In this section the interview responses, captured as transcripts is being analysed using thematic analysis.

4.2.1 Qualitative data - NVivo analysis

The process of qualitative data coding for the interviews conducted with professionals within the IT/Finance MNC's in Ireland has followed the Brown and Clark's six-step guide for thematic analysis. The process has been applied in this research with stage one, which is the familiarization with the data sets. Stage two consists of writing down the initial codes. Stage three lists emergence of new themes. Stage four deals with review of the themes. Stage five shapes themes to be finalized for research relevance. The sixth and final stage is to conduct the qualitative data analysis, which pertains to justifications of the emerging themes that has been chosen in an inductive research process.

4.2.2 Main emerging themes (first round of themes 1-7)

The first set of interview questions refer to the research objectives which is the respondent's awareness about the CQ in the context of their role within IT/Finance PM, and how it impacts the outcomes of the projects. Other questions that were part of the research objective was to understand the awareness and the level of knowledge of the respondents' cultural differences while working as team member, and how respondents perceived colleagues from different cultures, including what the methods of their cross-cultural adaptation were, whilst maintaining the professional relationships within those project teams.

Table 8: *Responses and Emerging Themes (first round of initial coding) (Source: Author)*

Theme No.	**Responses to interviews**	**Themes (first round of coding -primary coding)**
1	‘’(…) inherent employee inquisitiveness and involvement towards initiation of the rapport building process’’, ‘’(…) want to focus on knowing their counterpart (in cross country teams) entity, their culture’’ ‘’(…) culture as a context for initiation and involvement in IT Finance projects’’ ‘’(…) to know project uncertainty, use communication to understand their culture, approach,’’ ‘’(…) CQ helps me in terms of communications because like before I need to approach them. I need to have a really strong background on what the task is in the in the project that I'm managing.’’ ‘’(…) build better relationships with them than those that I know that I know I could get good buy ins’’	Effective communication

2	‘’(…) basically, working directly with other stakeholders outside of Finance to ensure a successful project integration as well.’’ ‘’(…) company itself has locations across the world. So, we have plans in Singapore, in India, in China, in Latin America and in the US, so it's a very diverse group of people and teams’’ ‘’(…) like working with different people from different countries, ‘’	Understanding different cultures
3	‘’(…) we are also conscious of within our companies that there are also different subsets of cultures within functions. And what I mean by that is in finance, for example, we have a certain culture that we might adhere to as a group.’’ ‘’(…) get a lot of time through such steps on the products that I work and to get buy in from the larger group is not that easy sometimes’’	Project team culture
4	‘’(…) never mingled with people of different cultures, like it’s much harder for them to adjust to another culture or to anticipate what another culture might look like’’ ‘’(…) learned through experience that each team member is expected to voice out any thoughts concerns, essentially contributing to the project delivery, your mere participation clearly evidences your commitment and engagement to the project at hand.’’	Leadership competence

	‘’(…) need to break out the sessions into a number of sessions where I need to break it out from certain number of groups where I need to group them into various sub teams’’ ‘’(…) how the CQ helps me in coach while working as a team member, is that when whatever for example, I'm not given an opportunity where I could be assertive in a certain meeting’’ ‘’(…) CQ helps me in in kind of like, you know, managing that, that point where I know I need to bring them up in a separate session and talk to them separately’’	
5	‘’(…) sometimes even people within the same country but in different regions,’’ ‘’(…) when we're dealing with multinational companies and multinational you know, team members across the globe and across the media, for example, in the current throwdown’’ ‘’(…) specially for the diverse team to work together, there's no way that they will be able to work together without understanding the culture of each other. And I think at the end of the day, might they, they need to adjust what they need to accept, at the same time adjust in each different culture’’	Impact on project management
6	‘’(…) have certain projects where you need to break people in different groups and deliver the agenda and the plan for the project to them in separate session’ ‘’(…) having a high cultural intelligence, culture caution helps me to deal with this culture, cross-cultural situations. So,	Project success

	understand whether they prefer me to submit the reporting on time or some are flexible.'' ''(…) different way of communication process of communication. So, like having a high EQ call culture quotient will help you to make it more open and to make it more smooth'' ''(…) the culture of that person or of those people is, because that would be an open or an open gate, or that would be an entry for them to trust you and to be open in terms of having a good relationship with you'' ''(…) if you understand the culture, beliefs, customs, of the people that you work with, you will have an understanding on how you are going to, to adapt to their habit to their mannerism and you will eventually come to understand the most you know, elemental way on how are you going to be like them.'' ''(…) we should have a high culture quotient, yes, we should have, like, at least try to understand the culture which each country, we should have, like at least proper perspective of how they practice their beliefs, their customs''	
7	''(…) CQ is that it's kind of hard to kind of separate within whether are you stereotyping an individual based on their cultural background'' ''(…) within the project where it's not like certain individual characteristics needs to be applied as well. And some people	Project failure

	within the same culture, you know, I guess, cultural background, they still would have different opinions''	

The above Table 8 summarizes the qualitative interview responses from which the first round of themes was drawn, leading to the context of employee initiation and involvement as expressed through the responses.

4.2.2.1 Theme 1 'Effective Communication'

The primary or first round of coded themes, represents effective communication demonstrating a deeper inquisitiveness, inherent motivation, and initiation of the rapport-building process within cross-cultural project teams. The responses throughout the interviews demonstrated openness from the communication perspective, providing greater involvement within the IT/Finance PM. Observing such practices within teams, display unique focus on participant's initial preparation, using communication as a platform, towards bridging potential issues within cross-cultural teams. Moreover, project managers were focused on knowing their colleagues in multicultural teams, their approach to project issues, and problem-solving methods within team culture. Implicitly, team members were communicating to understand norms, ways and approaches. Such approach helps participants in overcoming challenges, by aligning and converging activities and approaches towards resolving PM issues. Uncertainties during the initial project stages require project managers to develop approaches to manage the complexities during the later stages of the project lifecycle. Therefore, the centrality of understanding culture is dependent on the initiation and involvement by project team members within IT/Finance projects. It also rests on the degree of communication channels as a mode, which the team members agree upon, that aids to establish the participant's ability to interpret and identity self as a part of team identity during multi-cultural communication. These

approaches facilitate to understand the nature of problems across teams, identification of approach and methods that cross-cultural teams catalyze while working towards a common goal.

4.2.2.2 Theme 2 'Understanding different cultures'

The second emerging theme is to understand how fellow team members interact within the project teams, using culture as a platform. Responses have showed that participants address such issue as a team, by leveraging from past project experience. This prevents future challenges while helping in understanding different cultures and ensuring successful project integration. The participants' motivation shows intention to succeed in their team-based role while contributing to their organization. Evidently, participants were able to identify their team members according to nationalities, country of origin, language, and tailor their approach and communication methods. This understanding of work-style team behaviors predominantly helped address challenges of PM within IT/Finance. To interact with cross-border teams, employees used their existing cultural knowledge continuum. Their working knowledge of project fundamentals helped to initiate team member's approach to tasks, problem solving and prioritization which depicts the deeper-level initiatives to understand PM. Majority of the respondents showed a trend to use knowledge from experience to initiate PM approaches towards multicultural teams. This is an extension of the team-based cultural learnings at both individual and team level, which were applied to the broader international team interaction. This practical approach when they begin PM starts with the initialization and involvement, internalizing knowledge, and externalizing interaction to comprehend team culture.

4.2.2.3 Theme 3 'Project Team Culture'

There are several instances where team leaders and members have referred to the norms of working, approach to work, in a task-based PM culture. The interviews showed respondents' intention to adopt CQ to further understand perspectives of PM, task, and technology, which goes beyond comprehending the behavior of team members. The respondents defined comprehension of their perception, including teams depicting their culture, communication, goals-setting, decision-making, commitment to project deliverables. It is also an environment whereby by all team members engage in meaningful exchange of information such as member roles and project tasks to achieve goals. The way the team decided the norms and culture, has helped to understand the projects better which is a capability. It is not a sole team member's behavior, how concerted activities and converging roles contributed to the team's output. Different types of individuals within teams, show the presence of subcultures within the groups. It was observed that this led to understanding that individuals find group allegiance shaped the team member's acceptance and maintain a norm that defines the team's identity in PM. Individuals will follow the guidance set by their team leader. Hence, team dynamics formation and setting team norms should be prioritized before discussing PM. It showed how team members develop self-knowledge, relate to team members, and rely on CQ-based inputs to adhere to PM methods. To achieve project success, team members follow agreed norms to adhere to project deliverables and timeline, that define members' approach to PM at team level.

4.2.2.4 Theme 4 'Leadership Competence'

Theme four is related to leadership competence considering culture is a process. Team members use CQ to deal with the problems, show behavior convergence, motivation and cognition to achieve goals. Responses also showed how leadership sets the team members' preparedness to interact with other team members. Understanding team behavior in meetings, while leading the diverse team, and converging towards a common team-based culture

facilitated team leaders to guide towards more focused projects participation. This professional team competence for the team relies on directional leader inputs. However, leadership is a developmental process, which leads to a distinct identity. Team members' role is to follow the leadership guidance, an approach to develop team convergence, challenges resolution within projects. Breaking the team into smaller sub-teams happens in practice, to align the team members' behavior, where leadership strategy adopts. The leadership guidance can result to project team members delivering positive project outcomes in time. Through own team culture adoption, team members have developed a knowledge continuum regarding multi-facets of culture. Within broader leadership context, the interaction in such cross-border projects, has facilitated team members to adapt to various cross-border situations.

4.2.2.5 Theme 5 'Impact on project management'

The team leader and members who followed communication protocols, cultural knowledge-based learnings, and experience impacts the PM outcomes. Past team experiences have led to activities impacting PM complexities further resolved by adopting mutually agreed methods. Responses indicated that risks of project uncertainty remain, but the approach of attaining PM success depends on goals-setting and deliverable timelines, all of which depends on the team. Therefore, the project's success, as well as the team-based approaches, require using task descriptions and past knowledge to circumvent the project challenges. The cultural factor links to the team-based actions, norms and methods that defines conservative or aggressive views adopted in shaping the project team thought process and influence PM output. Thus, this is a common observation within internal culture of the teams in adopting and managing projects, using differential approach, maintain cultural distance using cross cultural adjustment capability build over series of interactions. Such differential approach adopted has addressed various challenges across projects.

4.2.2.6 Theme 6 'Project Success'

'Project success' is a synonymous term used amongst participants, and is also an emerging theme, as per the participants' discussion on PM. Although a favorable outcome, there are challenges discussed by the project team members mainly arising during cross-cultural communication. The impact of communication, strategies, methods guided by PM principles typically govern most of the knowledge exchange. However, the project's success is related to organization team culture and inter-team interaction to develop working relationships. The issue of PM within IT/Finance is critical as it carries multi-disciplinary technicalities. Illustratively, the financial activities in an IT-based platform requires greater level of inter- and intra-team collaboration in using standard protocols in order to achieve project deliverables. This leads to 'project success' which effectively result in brainstorming for solutions, methods, and techniques to create a collaborative problem-solving approach. CQ developed in business intelligence, use emotional quotient within teams to contribute to project success. The organization's internal stakeholders use CQ for team-based identity or individuality. Thus, IT/Finance teams were able to adopt to team-based processes and methods, resulting to overall project success. There is growing evidence that resolving certain issues within the deadline-driven IT/Finance projects, required team members to use CQ, working towards project deliverables. Participants showed greater interaction between team members to resolve such certain project concerns by using CQ to work towards PM concerns as a team, rather than individually.

4.2.2.7 Theme 7 'Project Failure'

Project failure is a key concern for the leadership team and team members, since this is linked to CQ, representing uncertainty and fear of unsuccessful projects. Discussion illustrates differences in team culture, development of awareness at individual and group level, identifying indications about the project's outcome. This goes beyond the technicalities of PM methods and principles as failing to apply new knowledge, new dimensions of cultural intelligence apart from PM principles can lead to failures. It brings out issues in PM of having different approaches, lack of leadership and team member's support. Failure in PM outcomes is attributed to the lack of understanding cross cultural distance, their team characteristics, team members dynamics, thus failing to relate to team norms. Some respondents stated that disagreements from conflicting opinions contributed to project failure. The emerging issues show non-adherence to agreed team norms, absence of flexibility in methodology and behavioural issues that impact the blockage of knowledge flow.

4.2.3 Discussion of themes and inferences

For the further discussion related to coding of the primary themes emerging from the analysis where: the correlation of the themes and comparison of the nodes was done, please refer to Appendix 5.

4.3 Inferences and application of thematic results

4.3.1 Identification of secondary themes (second round of themes 1-5)

Table 9: *Qualitative Analysis – Second Round of Themes (Source: Author)*

Theme	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5
Codes Included in Theme	**Primary Codes:** Effective communication **Secondary Codes:** Initiation & reevaluation of culture	**Primary Codes:** Understanding different cultures **Secondary Codes:** Building Culture knowledge	**Primary Codes:** Project team culture **Secondary Codes:** Sensitization to intercultural competence	**Primary Codes:** Leadership competence **Secondary Codes:** Team culture leading to cultural problem solving	**Primary Codes:** Impact on project management **Secondary Codes:** Eliminate cultural differences for PM goals

The initial phase of primary coding used in Nvivo has resulted into a set of refined secondary codes which supports the inductive research process of new theory building. The participants' responses were grouped into themes, from reviewing the broad themes, which drew the following new categories (Table 9). The further refinement of these themes is based on the research explaining the essence of the team and linking it with the research objectives and questions.

4.3.2 Interpretation of the qualitative results relevant to literature

4.3.2.1 Secondary Codes (Theme 1): initiation and re-evaluation of culture

The effective communication theme has been refined to ‘initiation and re-evaluation of culture’. Directionality in binding this is based upon that everyone in the team gained past experiences about PM. Examples as stated by respondent 1: ‘’trying to communicate (to) them what the objectives are for the projects’’ which is a pre-requisite for the team members, to be able to understand ‘’better explanation’’ and ‘’more eloquent’’. Respondent 2 stated,

‘’communication culture’’ is the basis for gathering intelligence about ‘work setting’, and ‘meeting everyone’s expectations, use it to my advantage in terms of how to manage everyone's expectation.’. Therefore, using communication as platform, the team members obtained understanding of ‘’different groups (…)’’ and ‘’different cultures’’ to establish ‘’good relationship, enable knowledge transfer engagement’’. Respondent 3 stated that key to ‘’project delivery as a team’’ while emphasizing on ‘’CQ helps me in terms of communications (…)’’. Communication here is an initiator for evaluating team culture, ‘’as communication in all meetings’’, and ‘’understanding of how the other team member works ‘’. Therefore, initiation and direction on how team members preference, understanding and re-evaluating cultural distance, meeting expectation results from communication and gathering intelligence using initiation of communication. Van Dyne et al., (2012) study showed how individuals form perception, using interaction, communicating to link variances in intercultural situations that is dependent on intercultural communication.

Engagement with the other team members for knowing their culture in PM context is building self-perception, using predetermined CQ strategy to deal with cultural unfamiliarity. It is focusing on initiation and re-evaluation of one’s own and others’ team culture, developing knowledge, then re-evaluate cultural awareness continuously using communication. Therefore, this emerging practice is significantly impacting the IT/Finance team members actions, in developing CQ, applying these consciously with accuracy. This is a primary step for building CSF in IT/Finance PM success factors overcoming and resolving project challenges.

4.3.2.2 Secondary Codes (Theme 2): Building Cultural knowledge

One consensus within the team member responses is that majority of the participants use prior experience to develop competencies to understand cultural differences. Team members are building knowledge about different team cultures, as respondent 3 stated, ‘’knowledge in CQ helps me in building relationship’’ and ‘’in terms of managing relationships’’. Respondent 4 stated, ‘’understanding their culture, and having high CQ, we will be able to adapt in different culture and situations’’. Hence, it is inferred that building CQ is continuous process, which uses metacognition and cognition dimensions, as per the literature review, therefore allowing team members to perceive, map differences in their own cultural values setting other teams apart as per respondent 7 is ‘’ it's our ability and our intelligence and within cultural interactions between us and other cultures (…) it contributes to the efficiency of projects.’’. The observable component is therefore codified in grouping the teams, based on similarities and dissimilarities within team culture. The study of Brislin, Worthley and Macnab (2012) shows how self-assurance at individual level, through series of interactions supports the ‘self-determination theory’ from actionable perspective, allows to explore and determine external and internal interests in cultural intelligence. Building CQ is a developmental process is linked to self-learning, helping to build a learning curve. Metacognitive CQ tests knowledge in a team-based setting, through sharing, to align perception of differential knowledge about multiple teams. Outcomes showed development of CQ, classification of team cultures, identifying the norms and values linked to different cultures. This is CQ that is testing of intrinsic and extrinsic dimensions of culture at individual level captured from the inter-team interactions.

4.3.2.3 Secondary Codes (Theme 3): Sensitization to intercultural competences

Team members interaction composed of different nationalities where individuals developed competence and capability of application-oriented approach at behavioral level. Individual challenges show respondent 1 ‘’ would have an idea of how the culture would work for a certain team (...) trying to understand another person or another team's culture (...) taking time to learn my culture’’. Consequently, over period of time, individuals have developed sensitization of inter-cultural competences, where respondent 4 stated, ‘’managing cultural differences while working as a team member with different projects overseas ‘’. Such outcomes match with Ang et al., (2008) as mentioned in the literature review, where the project team members within IT/Finance used verbal and non-verbal cues to adjust CQ strategy to deal with intercultural interaction. The sensitization is evident within responses like, ‘’gives me more understanding on how to deal with different situations in working with those projects overseas’’. Such an emerging trend wherein participants they adopt differential treatment, adjust their own team culture with cross-cultural teams, which respondent 5 stated, ‘’investing time to get to know people that you’re working with ‘’. Therefore, a new competence termed ‘sensitization’ using awareness, planning, validating, and adapting from knowledge of CQ within IT/Finance teams and is key to achieve project outcomes successfully. Kim and Slocum (2008) stated ‘CQ to aid to job performance’ as each member engages in CCA, as part of the work adjustment task process that Ng et al. (2012) supported It is evolutionary and requires continuous learning helps the team member to adopt a sensitized approach to adjust culture within IT/Finance and minimize project risks. The impact of sensitization affects behavioral changes overtime, and hence team members continuously develop and adjust their CQ competencies in projects.

4.3.2.4 Secondary Codes (Theme 4): Team culture leading to cultural problem solving

The role of team culture in problem solving in PM relates to leadership's contribution to project outcomes and the complexity of certain variables within cross-cultural teams. This presents extending the team-based cultural learnings groomed by leadership to a more responsive approach to link CQ to problem solving. Respondent 4 stated, ''how important or how critical (is) having CQ in dealing with different cross-cultural situation'' that respondent 3 stated, ''CQ is definitely helping project managers like me on planning and delivery ''. Thus, the leadership guidance within team as per respondent 5 is ''understanding how they work and their own motivation and in consideration of cultural differences '' to use CQ in cross-cultural project teams, as respondent 5 stated, ''varies from group to group and the nature of the project''. Additionally, developing cognition of CQ as per respondent 5, ''getting the idea of those cultural differences may be identifying shortcomings from another team member (helps) you identify which other team members can help (…)'' implies CQ as a knowledge factor providing opportunity and strength to the overall project.

What emerged is strikingly crucial as respondent 6 said '' have to change how you approach the different teams depending on the circumstances and being conscious of those cultural differences''. The leadership steers the team culture as respondent 5 stated, ''someone driving the project has a good CQ and could utilise it opportunistically '', to use it as a strength, in using CQ at behavioural or practitioners' level to segregate subculture teams. This finding matches the Patel and Salih (2018) study that states, 'exploring and examining cultural characteristics of global project teams, to aid in behavioural and motivational responses'. This research helped to resolve the contextual problems within PM using CQ to gauge motivation level and working style, leaving the technicalities of PM principles.

4.3.2.5 Secondary Codes (Theme 5): Eliminate cultural differences for PM goals

Emerging themes: 'project success' or 'project failure', which have been further translated into Theme 5 above: This was an attempt to use the competencies of team members' aggregate CQ in understanding the cultural differences and adjust potential cultural distance within projects. Respondent 3 stated, ''major extent for CQ that's happening isn't under planning phase'' which results to insufficient planning, hence respondent suggested to include ''little bit time on the planning and the delivery'' to reduce project failures.

Proper utilization can be a strength in developing knowledge about team cultures, as respondent 4 stated, ''CQ helps me in managing cultural differences while working as a team member with different projects overseas '' to assess differences in styles and approaches as per respondent 6 'understanding how they work and their own motivation and in consideration of the cultural differences made me understand or vary my approach on from person to person or teams to teams'', and respondent 1 ''had intuition enough to understand what drives an individual and their respective culture''. This provides and unlocks understanding participant's motivation and behavioural impact on project outcomes. Other responses like respondent 5 ''probably understanding how they work and their own motivation and in consideration of the cultural differences made me understand or vary my approach from person to person or teams'', with respondent 7 stating ''it's our ability and our intelligence and within cultural interactions between us and other cultures''. It implies teams within IT/Finance are showing emerging actions, based on CQ. This research observed that CQ assisted in removing project teams' uncertainties, and moreover assisted in achieving common project objectives. This further implies that team members intend to ultimately achieve project success, through understanding the behaviours amongst cross-cultural teams and their varying approaches. If both internal and external project stakeholders collaborate to place priority to CQ, wherein Fellows and Liu (2016) referred to 'sense making' to eliminate cultural differences and adopt shared

endeavours, consequently it indirectly addresses the CSF in achieving success within IT/Finance projects. Therefore, to increase the probability of project success, building cognition can motivate and initiate actions to achieve calibrated cross-cultural initiatives on CQ level, which can facilitate the outcome of the projects.

4.4 Analysis by research objectives, hypotheses, and research questions

4.4.1 Coding of quantitative (Contextual) and qualitative questions

This section links the responses in quantitative and qualitative questionnaire in this research to the research questions to draw inferences for the final analysis. The codes for quantitative questionnaire in this section were coded as 'N1, N2', etc. The codes for qualitative interview questions were coded as 'I1, I2', etc. For the discussion related to coding of the contextual part of the survey and interview, please refer to Appendix 6.

4.5 Linkage of research objectives, hypotheses, research questions with survey and interview questions

The section links the research objectives and questions, which have been addressed by the quantitative survey and qualitative questions.

The following Table 10 (shown as sections A to D) presents the linkages of key research elements in the following order: research objectives, hypotheses, and research questions in columns for the research topic. In the subsequent columns the research question bifurcates to survey questions for IT/Finance PM employees and interview questions for IT/Finance PM managers.

Table 10: *Summary linkage of research objectives, hypotheses, research questions with surveys and interviews (Source: Author)*

Section	Research Objectives	Hypotheses	Research Questions	Survey Questions (Quantitative)	Interview Questions (Qualitative)
A	Primary objective: To understand cultural quotient on project management, and examine the impact on successful project outcome in Business consulting organisations	Hypotheses 1: H_0: Cultural quotient does not impact positively on the management of projects H_1: Cultural quotient impacts positively on the management of projects	RQ1.1: How significant is the role of CQ as a CSF in project's success or failure?	N1) I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds in IT/Finance Projects. N2) I adjust my own cultural knowledge as I interact with IT/Finance team members from a different culture that is unfamiliar to me. N4) I check the accuracy of my cultural knowledge as I interact with individuals from different cultures.	I1) How far your knowledge about CQ helpful in managing the cultural differences? Please elaborate. I2) How does CQ help you to manage cultural differences while working as a team member for IT/Finance projects overseas? Please elaborate.
B			RQ1.2: Is there any relationship between cultural quotient and project performance in the project success or failure?	N6) I know the cultural values of other cultures. N7) I know the rules for expressing non-verbal behaviours in other cultures N5) I know the rules (e.g., vocabulary, grammar) of other languages N14) I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it. N8) As a team member in IT/Finance projects we are wary about expressions before other culture members.	I3) How does CQ help in cross cultural adaptation? Does in the ease the process of communication? Please elaborate. I4) How did CQ help you to manage relationship with different stakeholders in IT/Finance projects? How does CQ contribute to the efficiency and success of IT/Finance projects? Please elaborate.

Section	Research Objectives	Hypotheses	Research Questions	Survey Questions (Quantitative)	Interview Questions (Qualitative)
C	Secondary objective: To examine the CQ strengths, weaknesses, negative and positive elements impacting project performance outcomes in business consulting organisations in Ireland	Hypotheses 2: H_0: Strengths, weaknesses, positive and negative aspects of cultural quotient do not have impact on the success or failure of project management H_1: Strengths, weaknesses, positive and negative aspects of cultural quotient have impact on the success or failure of project management	RQ2.1: How significant is the capability of the project managers of being culturally intelligent while having direct alignment to the success or failure of projects?	N6) I know the cultural values of other cultures. N10) I am confident that I can socialize with people of multiple cultures that is unfamiliar to me. N13) I take initiative to resolve culture-based misunderstandings in our IT Finance project team. N14) I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it. N15) I use pause and silence differently to suit different cross-cultural situations in IT/Finance project team meetings. N16) I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it.	I5) What has been the major strengths of CQ for successful IT/Finance project outcomes and performances? Please elaborate. I6) Do you perceive that impact of CQ could be negative for IT/Finance projects? If so, what where (or what could be) the major weaknesses and downside of CQ for IT/Finance projects in any given situation? Please elaborate. I7) Can CQ be unfavourable for IT/Finance projects? How and in which project areas? Please elaborate.

Section	Research Objectives	Hypotheses	Research Questions	Survey Questions (Quantitative)	Interview Questions (Qualitative)
C	Secondary objective: To examine the CQ strengths, weaknesses, negative and positive elements impacting project performance outcomes in business consulting organisations in Ireland	Hypotheses 2: H_0: Strengths, weaknesses, positive and negative aspects of cultural quotient do not have impact on the success or failure of project management H_1: Strengths, weaknesses, positive and negative aspects of cultural quotient have impact on the success or failure of project management	RQ2.1: How significant is the capability of the project managers of being culturally intelligent while having direct alignment to the success or failure of projects?	N6) I know the cultural values of other cultures. N10) I am confident that I can socialize with people of multiple cultures that is unfamiliar to me. N13) I take initiative to resolve culture-based misunderstandings in our IT Finance project team. N14) I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it. N15) I use pause and silence differently to suit different cross-cultural situations in IT/Finance project team meetings. N16) I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it.	I5) What has been the major strengths of CQ for successful IT/Finance project outcomes and performances? Please elaborate. I6) Do you perceive that impact of CQ could be negative for IT/Finance projects? If so, what where (or what could be) the major weaknesses and downside of CQ for IT/Finance projects in any given situation? Please elaborate. I7) Can CQ be unfavourable for IT/Finance projects? How and in which project areas? Please elaborate.

4.6 Analysis of Qualitative and Quantitative responses

4.6.1 Section A: Results in relation to research primary objective, hypotheses 1 and research question 1.1

It was observed that the respondents who were part of IT/Finance projects have addressed the survey statements N1, N2 and N4, as per table shown below. Thus, such statements from the survey supports Hypotheses 1, and the table also summarises the statistical results.

Table 11: *Statistical Results of Quantitative analysis - Metacognitive (Source: Author)*

Metacognitive	Numbers				
	Valid	Missing	Mean	Median	Mode
N1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds in IT-Finance Projects	138	9	4.04	4.00	4
N2 I adjust my own cultural knowledge as I interact with IT/Finance team members from a different culture that is unfamiliar to me.	138	9	3.94	4.00	4
N3 I am conscious about the cultural knowledge which I apply to cross-cultural interactions.	138	9	3.90	4.00	4
N4 I check the accuracy of my cultural knowledge as I interact with individuals from different cultures	138	9	3.78	4.00	4

The rating scale for the above responses are: **5 SA (strongly agree), 4 A (agree), 3 N (neutral), 2 D (disagree), 1 SD (strongly disagree).**

The results show that out of four questions within the metacognition construct, the (N1) consciousness of cultural knowledge has a mean of (4.04) out of scale (1 to 5), thus results of responses show it as highly positive. The second response (N2) 'I adjust my own cultural knowledge as I interact with IT/Finance team members from a different culture that is unfamiliar to me.', has a mean score of (3.94) out of a scale (1 to 5) is also significantly positive as rated by all respondents. The next response (N4), 'I check the accuracy of my cultural knowledge as I interact with individuals from different cultures' has a mean of (3.78) out of a scale of (1 to 5) which is positive.

The significance of CQ from metacognitive dimension depicted above uses own learning and thinking contributing to explore uncertainties. The team members are using their own cognition in trying to form individual perception about cultural awareness. They are using CQ knowledge as to why, where, and when in defining metacognitive strategy knowledge for evaluating linkage between CQ and PM success. This has been applied within project teams through interactions where team members consciously (N1) develop the ability to adjust their behaviour (N2) which shows it is vital in achieving PM success.

Furthermore, the above primary research objective is also supported through responses on the following **qualitative interview questions: I1 and I2.**

I1) How far is **your knowledge about CQ helpful in managing the cultural differences**? Please elaborate.

I2) How does CQ help you to **manage cultural differences while working as a team member** for IT/Finance projects overseas? Please elaborate.

The response was evident in interview question no. (I1), where respondents placed importance on knowledge of cultural dimension to differentiate various cultures of participating team members. They found differences between their own team culture and made efforts to form knowledge to close any gaps in approach by resolving cultural differences. (N2) results showed that CQ is being adjusted as per their existing cultural knowledge level to interact with team members of different cultures, in managing capability (I2) for successful project outcomes. The significance of CQ, therefore stems from the adoption of team member strategies, like ‘’seeking ways on using CQ’’, strategize methods to use knowledge, and link the PM capability within IT/Finance.

The responses showed that team members used CQ to predict the project success using work adjustment, by interacting through relationship-building, placing importance on project success. The response trend implies how team members are taking initiatives to cope with project uncertainties, how they place importance on culture, along with PM principles, to achieve project success. The outcomes of team interaction activities show reliance on managing behaviours at team level. The behavioural action demonstrates initiation of CQ knowledge formation, then building motivation, strategies to probe deeper and show confidence to manage stress in closing cultural gaps. This was cross verified as cultural norms are continuously tested by individual's perception, along with project managers responding to interviews.

Alternative Hypothesis 1 (H_1) is further proved, as CQ positively impacts the degree of CQ level, use team member knowledge level and their thinking application to strategize for future interaction-based project relationships between teams. It implies the significant degree of individual and team emphasis on CQ in gaining effectiveness for deciphering uncertainty within PM. At pre-project stage, this is about 'sense making' culture in different teams and developing knowledge on intercultural skills, that contributes to success or failure within IT/Finance projects.

4.6.2 Section B: Results in relation to research question 1.2

In the analysis of the relevant research question 1.2 above, it was observed that the respondents have addressed the survey statements N5, N6, N7 and N8, as per table shown below, which also summarises the statistical results.

Table 12: *Statistical Results of Quantitative analysis – Cognitive (Source: Author)*

Cognitive

	Numbers				
	Valid	Missing	Mean	Median	Mode
N5 I know the rules (e.g., vocabulary, grammar) of other languages	138	9	3.29	4.00	4
N6 I know the cultural values of other cultures	138	9	3.69	4.00	4
N7 I know the rules for expressing non-verbal behaviours in other cultures	138	9	3.38	4.00	4
N8 As a team member in IT/Finance projects we are wary about expressions before other culture members	138	9	3.46	3.50	4

The survey responses reflect their individual values and how they relate to rules, behaviour, self-team and other team cultures, expression behaviours, and awareness of different team cultures. The rating scale for the above cognitive dimensions were: 5 (strongly agree), 4 A (agree), 3 N (neutral), 2 D (disagree), 1 SD (strongly disagree). The (N6) responses showed a mean of (3.69) out of (1 to 5), for all responses that are highly positive about awareness of culture and placed importance on values. Secondly, mean of all (N8) responses showed that IT/Finance project team members were aware about expressions in front of other culture members (3.46) out of (1 to 5) rating scale. They know rules of what to say (verbal, non-verbal awareness) in establishing relationships with other teams with mean of (3.38) out of (1 to 5) for (N7). Evidently, at individual level that employees within project team were using 'self-determination theory' to form self-perception, differentiating two or more team cultures, before establishing any relationships. In (N5), they change their accent, tone of verbal expression in cross-cultural team exchanges with mean of (3.29) out of rating (1 to 5) showing behavioural level adjustment to establish and support relationship with other teams.

Such structural and process-based approach demonstrated team members using it as an input capability. Individually, they used appropriate vocabulary, grammar, to develop CQ knowledge formation of other project teams. The cognitive dimension of CQ, team members were using their mental process to decipher CQ, comprehending it, by understanding their verbal, non-verbal cues. As individual member in the team, their cognitive behaviour adds to team members experience and knowledge continuum. These show significant positive impact on the individual learning and supports that CQ formation for establishing crucial relationships, to explore the success of PM principles within IT/Finance.

Moreover, such **qualitative questions** below are linked to the above research question 1.2:

I3) How does **CQ help in cross cultural adaptatio**n? Does in the ease the **process of communication**? Please elaborate.

I4) How did CQ help you to **manage relationship with different stakeholders** in IT/Finance projects? How does CQ **contribute to the efficiency and success of IT/Finance projects**? Please elaborate.

Thus, **relationship between CQ and project performance have been attended by the** behavioural individual responses, as a team identified within project interview responses. Project managers showed mindfulness about initiating culture perception, set team culture to gain CQ. It is a form of knowledge developing through behavioural interactions. The team members are trying to understand the team norming process first, before further cultural adaptation (I3) at individual and team levels, consequently adapted cross-cultural at intra- and inter-team levels. Responses also show (I3) that as each team prior to applying CQ, tries to understand the uncertainties, within projects. This created the establishment of relationship

between teams to achieve the desired project outcomes. Such techniques built to manage and sustain relationships with different stakeholders (I4) by the project teams. The above elements impact PM positively only when team members adopt defined rules to establish relationship that is efficient for PM.

Thus, results show that relationship between CQ and project performance requires extensive verbal and non-verbal communication both which the quantitative survey results helped us to understand (N14) shows that results show supporting the team member actions. The uncertainties within projects require team members to strategize using CQ to assess success projects parameters. Predominantly, individualistic decisions supported the cognitive and metacognitive dimensions of CQ. The project team lead guided approach showed in the interview results, supporting and handholding team members to use CQ to identify teams, their practices and differentiate their team cultures. The entire process uses cognition at individual and at team levels they are building CQ knowledge continuously using a strategy for building an engaging relationship. The intention shows maintaining sustainable, structural relationships throughout the project life cycle, observing team members are also wary on the accuracy of CQ and its application (N7). Therefore, there is evidence in results in developing perceived CQ knowledge, to manage culture at teams' interactional level. Communication is therefore a core prerequisite for relationship-building and is one of the PM CSF, apart from PM principles. Communication comprises of verbal and non-verbal cues (N5) that contributes to form perception evident from quantitative responses. It is also a guiding component for behavioural expression of team relationships within as project team leads used motivation in relationship-building. This strategy is found by identifying teams as stakeholders to PM process, using outward behaviour to adopt a style of integrative cross-cultural adaptation (N8).

To achieve the project goals, establishing team relationships first, is necessary, and then immediately maintaining required CQ or gaining intelligence continuously. The qualitative results show evidence in Secondary Theme 2 (‘Building cultural knowledge’) and Secondary Theme 1 (phase of ‘initiation and re-evaluation of culture’). This is directly evident as a capability exercised with variation in multiple interactions, with adjustments by team members guided by project managers to address project performance uses dependencies of high-level knowledge about CQ. All of this requires CQ capability to be built, to create a culturally intelligent team, with each team member adopting a differential approach to deal with international teams. Hence, knowledge-sharing about CQ, evident from project leaders and team members, for establishing relationship with multicultural teams. CQ helps to maintain and fine-tune fellow team’s culture, to eliminate uncertainties about PM outcomes, and strategize to adapt towards other team culture, to be successful.

4.6.3 Section C: Results in relation to research secondary objective, hypotheses 2 and research question 2.1

In the quantitative section analysis, it was observed that the respondents have addressed the survey statements N6, N10, N13, N14, N15 and N16, as per table shown above and below. Thus, such statements also support Hypotheses 2, and the (Table 13 and Table 14) further summarises the statistical results.

Table 13: *Statistical Results of Quantitative analysis – Motivational (Source: Author)*

Motivational	Numbers				
	Valid	Missing	Mean	Median	Mode
N 9 I interact with people from different cultures as a part of IT Finance job	138	9	4.33	4.00	5
N10 I am confident that I can socialize with people of multiple cultures that are unfamiliar to me	138	9	4.24	4.00	4
N11 I am sure I can deal with the stresses of adjusting to a culture that is new to me	138	9	4.04	4.00	4
N12 I am confident that I can get accustomed to conditions in a multicultural IT Finance team environment	138	9	4.18	4.00	4
N13 I take initiative to resolve culture-based misunderstandings in our IT Finance project team	138	9	3.71	4.00	4

The rating scale for the above behavioural dimensions were: 5 (strongly agree), 4 A (agree), 3 N (neutral), 2 D (disagree), 1 SD (strongly disagree). The quantitative responses (N6) showed mean of (3.69) out of (1 to 5), for all responses that are also reflected as outwardly behaviour as knowledge impacts expressions. This allows respondents to state emphatically that (N10) they are confident in socialising with multicultural team members, evident with mean score (4.24) out of (1 to 5 scale). It shows capability of teams and their interaction with multiple cultures through application of cognitive, metacognitive at behavioural level. Both above results demonstrate strength as their behaviour reflects values of other team culture, that aids in socialisation on unfamiliarity with multicultural teams. Responses also show (N13)

where culture-based misunderstanding is a behavioural output that is resolved with mean score of (3.71) out of (1 to 5 rating). They change verbal behaviour when a cross-cultural interaction within projects requires it (N14), as mean score show (3.72) in (1 to 5) range. This is an adjustment behaviour in cultural reference to other teams that both a strength and positive element shaping a project's success. Courtesies like pause and silence, are also behavioural adjustment expressions (N15) with mean score (3.58) shows its influence in PM interactions and success. Rate of speech during interaction is vital (N16) as mean scores (3.86) out of (1 to 5) that contributes to behavioural adjustment for project success.

and the below **qualitative questions** listed further strengthens the link to research question 2.1:

I5) What has been the major strengths of CQ for successful IT/Finance project outcomes and performances? Please elaborate.

I6) Do you perceive that impact of CQ could be negative for IT/Finance projects? If so, what where (or what could be) the major weaknesses and downside of CQ for IT/Finance projects in any given situation? Please elaborate.

I7) Can CQ be unfavourable for IT/Finance projects? How and in which project areas? Please elaborate.

The project managers responded stating that (I5) strengths are related to CQ to understand the PM uncertainties and challenges. This ability requires team members to acquire and hone such CQ skills (e.g., verbal, non-verbal, awareness, value culture, pause and being silent to actively listen) to eventually and continuously demonstrate these strengths to show CCA in multicultural project teams. The managers in (Theme 1 (Secondary Codes)) relate to 'initiation-evaluation and re-evaluation of culture' of other teams at the outset. It implies that team members are continuously using their communication as strength, to decode their existing

knowledge about team culture. This is a capability also confirmed by (Theme 2) 'building cultural knowledge' and socialising in a manner that reflects employee confidence in handling multicultural teams. It is evident that project managers are embedding skills to be culturally intelligent, to engage and build established relationships. Such effectiveness is dependent on CQ so that they become familiar with themselves, their team culture and that of other unfamiliar cultures.

The managers expressed that inability to bridge cultural distances of various teams are due to the inability to align an individuals with team's culture. This requires language proficiency, non-verbal cues and communication etiquettes that lead to achieving project goals. Therefore, the project outcomes are likely to fail when project managers (I7) are unable to guide their teams to gain CQ. Similarly, Theme 5 ('Eliminate cultural differences in project management goals') have emerged strongly during interview outcomes, which managers have emphasized, where team members use cognition to form perception, manage verbal and non-verbal expressions. It implies how project managers link the ability to use internal team stakeholders' willingness to place importance to CQ in their behaviours. This led them to develop initiatives in understanding culture within teams and outside teams by using knowledge gained inputs through interactions identifying cultural differences with other teams.

This is a positive action-based behavioural approach towards building team capability and strength. The managerial response show perception is related to unfavourable outcomes and uncertainties, leading to project failure, which is avoided as CQ knowledge is shared to raise team preparedness, increase their motivation to counter the multicultural dimensions, apart from PM commitment within IT/Finance.

The project managers expressed motivation to build team capabilities which is a strength, eliminating weaknesses, to maintain PM scope and outcomes positively. They adopt 'sensitisation' towards other cultures, Theme 3 for developing intercultural competence. The strength of developing CQ capability, shows that the team members adapting and adopting to different verbal behaviour (N14) helped them to overcome uncertainties in interaction within cross-cultural project teams. The verbal etiquettes like pause and silence (N15) which are alignment to the needs of developing culturally intelligent team, to suit the project life cycle requirements. These behaviours show how team level preparation is overcoming weaknesses and strengthen internal capabilities to achieve the external interaction teams. It has been proven in both quantitative and qualitative responses that there is behavioural change which has been used to align team strategies to use CQ for decoding project challenges.

This implies Hypotheses 2 (H_1) is significantly supported. Attaining project success or failure depends on team's ability to use behavioural, motivational dimensions as discussed above in Theme 3 (Secondary Codes) (Sensitisation of intercultural competence). This builds up as their knowledge level continuously on CQ helping to create cross cultural adjustment in the context of PM interactions. Therefore, both team members and team managers demonstrate such strong capability, which impacts CQ knowledge as a critical success factor for successful project outcomes. It is linked to team-based self-efficacy, cultural intelligence knowledge level, enabling team members to be motivated in PM problem solving due to confidence in behavioural dimension. Their intelligence level about multi-cultural teams in PM context, goes beyond actual PM life cycle stages, gaining knowledge about the approach, strategy and norms that is a CSF for solving IT/Finance project challenges.

4.6.4 Section D: Results in relation to research secondary sub-objective, hypotheses 3 and research question 2.2

Observed through the analysis of the quantitative section, the respondents have addressed survey statements N9, N11, N12, N13, N17 and N18, as per table shown above and below. Thus, such statements also support Hypotheses 3, and the table further summarises the statistical results.

Table 14: *Statistical Results of Quantitative analysis – Behavioural (Source: Author)*

Behavioural	Numbers				
	Valid	Missing	Mean	Median	Mode
N14 I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT Finance project requires it	138	9	3.72	4.00	4
N15 I use pause and silence differently to suit different cross-cultural	138	9	3.58	4.00	4
N16 I vary the rate of my speaking when a cross-cultural situation in IT Finance project requires it.	138	9	3.86	4.00	4
N17 I change my non-verbal behaviour when a cross-cultural situation in IT Finance project requires it	138	9	3.50	4.00	4
N18, I alter my facial expressions when a cross-cultural interaction in IT Finance project requires it.	138	9	3.09	3.00	4

The rating scale for the above question dimensions were: 5 (strongly agree), 4 A (agree), 3 N (neutral), 2 D (disagree), 1 SD (strongly disagree). The quantitative responses (N9) showed mean of (4.33) out of (1 to 5), for all responses that also reflected self-confidence, willingness to face challenges (motivation) aided by behavioural responses (verbal, non-verbal). The results stress the need of adjusting to a culture that is new to me (N11) with mean of (4.04) is high in a scale of (1 to 5). The team members showed (N12) abilities of getting accustomed to conditions in a multicultural IT/Finance team environment with high mean scores (4.18) out of (1 to 5). However, when compared to the above result, the response on resolving cultural misunderstandings within team level (N13) mean score (3.71) is moderately implying that there is team leader or project manager intervention required to resolve this issue.

The result of (N17) ‘change my non-verbal behaviour when a cross-cultural situation within IT/Finance project requires it’ shows mean of (3.50) out of (1 to 5), while facial expressions when a cross-cultural interaction in project requires (N18) show a mean score of (3.09), evidently a more controlled approach to corporate behaviour.

The employees show that they can deal with diverse people from different culture as per (N9) and the capability to notice the difference in the CQ is critical for project performance. The team members have managed stress in adjusting to the new team culture which is an alignment issue that is new to them (N11) that may cause challenges. Team members who are involved in problem solving were confident in getting accustomed to multi-cultural settings. This is also dependent on how the team manages the internal environment. It implies team lead guidance and employee confidence are prerequisites that lead to favourable results. Thus, the PM performance is dependent on how the team members use the team lead’s guidance, being confident (N12) to adjust to fellow team cultural difference. The team members build self-awareness about the concerning changes, that occur impacting behaviour and expression. The success is dependent on their role as team member to interact using CQ and adjusting it accordingly and show ability to resolve the challenges or stressors to perceive a culture (cognition) and get accustomed to new approaches (N13). Non-verbal behaviour in cross-cultural situation has been cited important to understand CQ and project uncertainties (N17). In situations when uncertainties are high, team members may place reliance on their colleagues’ facial expressions, while resolving the project challenges through interaction (N18).

Furthermore, **qualitative question I8 below** is also linked to the above research question 2.1:

I8) What challenges did you face, or your IT/Finance project team faced in managing projects in a cross-cultural setting despite familiarity with CQ and its dimensions?

It can be concluded that the managers facilitate the structural and procedural approach to the IT/Finance issues which require motivation, cognition, and ability to continuously develop perceptual skills (to assess non-verbal and verbal cues) as they manage varying stages of PM life cycle stages within IT/Finance.

The project managers stated that project challenges are inevitable, but these are structural and contextual. However, the bigger challenge is to understand how teams engage in problem solving using their own approaches, norms, ways, or methods. This is linked to a team culture that can engage and establish the behavioural elements by those non-verbal and verbal cues. The evidence of emerging themes and ability to lead team culture leading to engage in problem solving (secondary codes, Theme 4) confirms that there are leadership and team member abilities to utilize CQ to guide own behaviour, perceive fellow team members' behaviour and adopt approaches accordingly. This is evidence of employee's and manager's perception about CQ build up, that helps to guide their individual and team behaviour to achieve project success.

It implies that building CQ is not static, but a dynamic process where team member use cognitive and metacognitive at personal level while behavioural and motivational dimensions drive CQ in the team environment. It holds true when team members agree on cultural alignment, sharing individual knowledge along with the other team members to devise strategy, that help to achieve the aims of project outcomes at practitioner level. It is contributing to project outcomes, by harnessing the strength of combined knowledge of team members and project managers on CQ strategy formation in each interaction with multicultural teams. It is gathering the different views of the team members and create a repository of level of knowledge about culture, that varies over time. In this process each team member is sensitized, developing a new level of inter-cultural competence by adjusting the cultural distance which confirms Hypothesis 3 (H1). Additionally, the team managers stated behavioural competence in CQ to reflect in mentoring, knowledge sharing, leading to adjusting behaviour capabilities in cross cultural distance between project teams. Their joint perception about overall culture and team, has enhanced their interaction with other project teams and determining the PM within IT/Finance, resulting to successful outcomes. The research observed a conscious attempt by team members to enquire, assess, understand about PM approaches that is a significant step in building behavioural CQ at team level proving to be a CSF for IT/Finance PM successful project outcomes.

Chapter 5

Discussion and Conclusion

5. Introduction to the discussion chapter

This chapter discussed the results from the previous chapter (Analyses of Data and Results), the findings of the research, research objectives and literature review triangulation, as outlined below. The primary aim of this research was to evaluate the significance of CQ as a CSF in project management within Irish MNC's (IT/Finance domain). The secondary aim was to examine the impact of CQ in managing multinational projects in Ireland. Additionally, the secondary aim is to evaluate whether CQ can be regarded as CSF while contributing to success or failure in managing projects in organisations. The primary research objective was to understand CQ as a CSF within project management discipline, examine the impact on successful project outcomes within Irish MNC's from literature review. The secondary objective examines the CQ's strengths, weaknesses, negative and positive elements impacting the project management outcomes in business consulting organisations in Ireland. The secondary objective was to find the gaps and recommend best practices in CQ for improving project performance outcomes in business consulting organisations in Ireland. At the end of the mixed method research approach, involving qualitative and quantitative analysis on the discoursed topic, this study had thus provided empirical evidence to meet hypotheses from the survey questions and contributed new theory formation from the interviews laying down the new study's findings.

5.1 Evaluation of main concepts and issues

Strength 1: The respondents in this research, in terms of demographic composition, comprised of people who have relevant project management experience (over 1 to 6 years on average), gender (females more than males), worked in cross-cultural teams (Irish, Indian, Filipino, USA, Chinese and Italian), which showed maturity in understanding objectives of the research, and contributing to address the research phenomenon.

Strength 2: The selected project managers have had number of years of hands-on experience (ranging from 1 to 10 years) within Irish MNCs, which contributed extensively to their project leadership insights. Their experience about building teams in large MNCs, leading team with capabilities, underpinned this research knowledge on cross-cultural training inputs (majority have received cross-cultural training interventions at some point). This has been repeatedly emphasized particularly on uncertainties within IT/Finance projects and helped team members to adopt cross-cultural intelligence.

Strength 3: The respondents showed past cross-cultural experience (good, very good, excellent) along with the rate of exposure to other cultures (over 5 years) to contribute to formation about perception, cognition and enabled their ability in future project management job assignments qualitatively.

Weakness 1: The sample size for the managers was relatively small; had it include other PM roles beyond project lead (e.g., project architect, technical project manager), and widen representation, these would have further contributed and enriched the outcomes of this research.

Weakness 2: There is possibility that project managers withheld CQ-specific sensitive information within project management, due to 'non-disclosure and compliance agreements' as employees, which may have affected certain research outcomes.

Weakness 3: The managerial respondents only covered PM's within Irish MNC's in IT/Finance teams, while obtaining responses from other cross-cultural teams in other sectors would have captured a more diverse response quotient.

5.2 Research synthesis and literature

The research's primary aim was to examine the significance of CQ as a CSF in project management within Irish MNCs. This has been achieved through collated responses from project team members and project managers working within IT/Finance here in Ireland. The results showed emerging trends of forming conscious choices towards CQ, since these were present at individual level, subsequently building perception on CQ by team. To achieve the research primary aim, surveys for knowing the dimensions and CSF were deployed, while CQ interviews helped form new insights in this research phenomenon. Open-ended questions were asked during the interviews to capture managers' perspectives about CQ, while close-ended survey questions were distributed amongst project team members.

The **Quantitative results** emphasized team interactions (verbal and non-verbal), curtsies that valued cultural differences within multi-cultural projects. This has been reported by Messner (2014) literature review findings, as communication forms the basis for intercultural skills, driving intercultural interactions at global project team level. The mean scores in quantitative questions for cognition and metacognition constructs guided individuals to place high importance on CQ. Ang et al. (2007) showed how metacognition impacts behaviour by leveraging CQ, as similarly confirmed within Irish IT/Finance project outcomes. Secondly, the results exhibited developing accommodating and motivating behaviours for multi-cultural teams. The Irish IT/Finance teams, by adopting differential behaviours and motivations for different multi-cultural teams, led projects to success. Positive mean scores in quantitative results showed that team member behaviour used self-cognition, metacognition in

CQ leveraging for project's success. This is also confirmed by Chuang (2013) in literature review, that referred it as CCA capabilities developed over time.

Through this research, the relationship between different multi-cultural teams was proven within Ireland IT/Finance team members, as they showed evidence of behavioural and motivational expressions to achieve successful projects. The findings of Chen et al (2012) confirmed the above motivational outcomes, which the Irish IT/Finance team members leverage CQ to impact the project performance, in multi-cultural setting. Team members adjusting cultural distance between teams, that Ramalu et al. (2011) referred to pose challenges. Within Irish IT/Finance business consulting firms, this has been verified true, supporting research findings of Chen (2019). The team members' modified language, communication, behaviour, etiquettes were crucial in aligning CQ in achieving favourable project outcomes.

The **Thematic** analysis findings showed presence of five themes that contribute significantly towards using CQ as a CSF within Irish IT/Finance project management. The project member initiation and re-evaluation of culture is a step towards gaining CQ knowledge requiring communication protocols from multiple cultures. Henderson et al. (2016) confirmed that setting and aligning communication norms helped projects to be achieved. The cross-validation of quantitative results elaborated on verbal and non-verbal cues, etiquettes of pause and active listening, being expressions of cognitive and metacognitive understanding to develop new CQ knowledge-based perceptions about other teams.

The findings on the second emerging theme were gaining CQ can benefit teams through understanding the uncertainties in project management within IT/Finance. Wang (2016) stated that cultural distances between global IT projects pose a risk. The above findings from project managers showed prevalence of team guidance and mentoring in developing competencies to perceive, know and comprehend the contextual issues of projects.

The third emerging theme finding is developing sensitisation of team members, under team manager guidance, an inclusive effort to address CCA capabilities. This develops inter-cultural competence over time, through multiple interactions, showing how team members value and recognise cultural differences and distances, offering flexible treatment within multi-cultural project teams.

The fourth emerging theme applies the findings of team culture in leading problem-solving capabilities within Irish IT/Finance, where team culture and team leader guidance impacts in addressing cultural differences. It shows restraint in team member behaviour, 'culture caution', to aid in team communication. They can identify project risks and use it as a strength in achieving successful projects. Team culture of continuous CQ knowledge-building and sharing helps team members to minimise risks of project failure. Team leaders and members create considerations, using their CQ knowledge level, to adjust 'cultural distance' to balance the impact on fellow member's cultural differences. Such positive expression and direction encourage to address cultural characteristics and adjustment competencies that aids team members to form CQ strategy to impact successful project outcomes at any stage of IT/Finance project lifecycle.

The findings from the fifth theme were on the ability to eliminate cultural differences and focus on achieving project goals. A team member requires dependency to resolve culture-related misunderstanding as apparent from quantitative results, while team leaders' guidance, mentorship and governance helps to overcome weaknesses and cultivate competencies from planning to execution stages within IT/Finance projects.

5.3 Conclusions

This research has its limits, while the purpose was to establish significance of CQ as CSF within Irish context, this research did not achieve a wider geographical representation to include a larger cohort of actively employed individuals in Ireland. Subsequent research may attempt to extend beyond the limitations of this research by conducting a wider scope of data collection to achieve wider socio-cultural and geographical depiction.

The mixed-method analysis of the research topic has offered evidence in understanding that CQ is a significant component among IT/Finance teams in Ireland. This study demonstrated confirmation of previous research from literature review, within multi-dimensional constructs of cognition, metacognition, behavioural and motivation. Moreover, interviews contributed to new findings wherein project team members were found to be utilising CQ actively from pre-engagement to post-engagement project-level analyses that provides working knowledge capabilities. They placed importance to CQ and used inherent knowledge as a strength, to show flexibility in cross-cultural team behaviour. It was found that project management methodology as a standard protocol had more emphasis on the CQ applied as a competency to achieve the successful outcomes within such multi-disciplinary IT/Finance project teams.

Despite above limits, this research can be considered to contribute to further studies regarding CQ within project management and to bridge the research gap within Irish context. Further research is highly recommended in this interesting topic.

5.4 Identified gaps in research findings, recommendations, and potential application

There were gaps in the findings as IT/Finance team members achieved low mean score (mean -0.2346 in motivational dimension of CQ) as the team members do not initiate to resolve the culture-based misunderstandings between two cross-cultural teams. Further deep dive through future research is recommended to find out as to how the role of IT/Finance team leaders and members are aligned towards addressing such conflicts arising out of cross-cultural adjustment. Therefore, the future research can be beneficial, since disruption in communication requires solutions, that ideally points to team member ability to close cultural distances. Their empowered role in CCA resolution aids to mitigate PM risks which requires minimal supervision from project managers in the context of defining success within cross-cultural project teams.

Furthermore, another area of research can be linked to CCA, as findings show a common ground of agreeableness, to value fellow team members while setting boundaries. This can directly assist project managers to enable team members of one culture, and to negotiate and collaborate in achieving successful project outcomes.

Final area of further valuable research can be to link cognitive biases with CQ, and how project teams can benefit from utilising these for successful synergies. In the context of critical thinking and perception, there are 24 key cognitive biases (out of over 180) that humans make (Desjardins, 2018) such as in-group bias, confirmation bias, belief bias, groupthink, to name a few. Such biases can be further understood by linking to CQ within the context of how these intertwine in the corporate PM setting, and further study can be delved in terms of better team culture interaction and project success.

References

Adair, W.L., Hideg, I. and Spence, J.R., (2013). The culturally intelligent team: The impact of team cultural intelligence and cultural heterogeneity on team shared values. *Journal of cross-cultural psychology*, *44*(6), pp.941-962.

Alghamdi, A. H. (2013). Adapting Design-Based Research as a Research Methodology in. International Journal of Education and Research, 1(10), 1–12

Almalki, S., (2016). Integrating Quantitative and Qualitative Data in Mixed Methods Research--Challenges and Benefits. *Journal of education and learning*, *5*(3), pp.288-296.

Alon, I., Boulanger, M., Elston, J.A., Galanaki, E., Martínez de Ibarreta, C., Meyers, J., Muñiz-Ferrer, M. and Vélez-Calle, A., (2018). Business cultural intelligence quotient: A five-country study. *Thunderbird International Business Review*, *60*(3), pp.237-250.

Ang, S. and Van Dyne, L., (2008). *Handbook of Cultural Intelligence; Theory, Measurement, and Applications*. USA: New York M.E Sharpe.

Ang, S., Van Dyne, L., Koh, C., Ng, K.Y., Templer, K.J., Tay, C. and Chandrasekar, N.A., (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and organization review*, *3*(3), pp.335-371.

Antwi, S. K., and Hamza, K. (2015). Qualitative and Quantitative Research Paradigms in Business Research: A Philosophical Reflection. *European Journal of Business and Management*, *7*(3), 217–225.

Barakat, L.L., Lorenz, M.P., Ramsey, J.R. and Cretoiu, S.L., (2015). Global managers: An analysis of the impact of cultural intelligence on job satisfaction and performance. *International Journal of Emerging Markets*.10, 781-800

Bridges, D., & Smith, R. (2006). Philosophy, methodology and educational research: Introduction. *Journal of Philosophy of Education*, *40*(2), 131–135. http://doi.org/10.1111/j.1467-9752.2006.00512.x

Brislin, R., Worthley, R. and Macnab, B., (2006). Cultural intelligence: Understanding behaviors that serve people's goals. *Group & Organization Management*, *31*(1), pp.40-55.

Bücker, J. and Poutsma, E., (2010). Global management competencies: A theoretical foundation. *Journal of Managerial Psychology*.25: 829–44

Bücker, J.J., Furrer, O., Poutsma, E. and Buyens, D., (2014). The impact of cultural intelligence on communication effectiveness, job satisfaction and anxiety for Chinese host country managers working for foreign multinationals. *The International Journal of Human Resource Management*, *25*(14), pp.2068-2087.

Bücker, J.J., Furrer, O., Poutsma, E. and Buyens, D., 2014. The impact of cultural intelligence on communication effectiveness, job satisfaction and anxiety for Chinese host country managers working for foreign multinationals. *The International Journal of Human Resource Management*, *25*(14), pp.2068-2087.

Burke, C.S., Pierce, L.G. and Salas, E. eds., (2006). *Understanding adaptability: A prerequisite for effective performance within complex environments*. Emerald Group Publishing.

Campbell, J.P., (1999). The definition and measurement of performance in the new age in: D.R. Ilgen & E.D. Pulakos (Eds.) The changing nature of performance: implications for staffing, motivation, and development, pp. 399-429.

Che Rose, R., Sri Ramalu, S., Uli, J. and Kumar, N., (2010). Expatriate performance in international assignments: The role of cultural intelligence as dynamic intercultural competency. *International Journal of Business and Management*, *5*(8), pp.76-85.

Chen, M., (2019). The impact of expatriates' cross-cultural adjustment on work stress and job involvement in the high-tech industry. *Frontiers in psychology*, *10*, p.2228.

Chen, X.P., Liu, D. and Portnoy, R., (2012). A multilevel investigation of motivational cultural intelligence, organizational diversity climate, and cultural sales: Evidence from US real estate firms. *Journal of applied psychology*, *97*(1), p.93.

Chuang, S.F., (2013). Essential skills for leadership effectiveness in diverse workplace development. *Online Journal for workforce education and development*, *6*(1), p.5.

Creque, C.A. and Gooden, D.J., (2011). Cultural intelligence and global business competencies: A framework for organizational effectiveness in the global marketplace. *International Journal of Management & Information Systems (IJMIS)*, *15*(4), pp.141-146.

Crowne, K.A., (2008). What leads to cultural intelligence?. *Business horizons*, *51*(5), pp.391-399.

Davis, S.A., (2011). Investigating the impact of project managers' emotional intelligence on their interpersonal competence. *Project Management Journal*, *42*(4), pp.37-57.

Desjardins, J. (2018) 'Here are 24 cognitive biases that are warping your perception of reality', *World Economic Forum*. Available at: https://www.weforum.org/agenda/2018/12/24-cognitive-biases-that-are-warping-your-perception-of-reality (Accessed 08 January 2022).

Diao, A. and Park, D.S., (2012). Culturally intelligent for satisfied workers in a multinational organization: Role of intercultural communication motivation. *African Journal of Business Management*, *6*(24), pp.7296-7309.

District Court of New York, (2019). Hertz Corp.v.Accenture LLP, New York: DISTRICT COURT OF NEW YORK.

Easterby-Smith, M., & Thorpe, R. (2010). The Philosophy of Research Design: Management Research: An Introduction. *Book*, *n/a*(n/a), 32–97

Earley, P.C. and Ang, S., (2003). Cultural intelligence: Individual interactions across cultures. Stanford, CA: Stanford University Press.

Elenkov, D.S. and Manev, I.M., (2009). Senior expatriate leadership's effects on innovation and the role of cultural intelligence. *Journal of World Business*,*44*(4), pp.357-369.

Fang, F., Schei, V. and Selart, M., (2018). Hype or hope? A new look at the research on cultural intelligence. *International Journal of Intercultural Relations*, *66*, pp.148-171.

Fellows, R. and Liu, A., (2016). Sensemaking in the cross-cultural contexts of projects. *International journal of project management*, *34*(2), pp.246-257.

Gong, Y. and Fan, J., (2006). Longitudinal examination of the role of goal orientation in cross-cultural adjustment. *Journal of Applied Psychology*, *91*(1), p.176.

Gregersen, H.B. and Black, J.S., (1990). A multifaceted approach to expatriate retention in international assignments. *Group & Organization Studies*,*15*(4), pp.461-485.

Gregory, R., Prifling, M. and Beck, R., (2009). The role of cultural intelligence for the emergence of negotiated culture in IT offshore outsourcing projects. *Information Technology & People*.22, 223-241

Hampden-Turner, C. and Trompenaars, F., (2006). Cultural intelligence: is such a capacity credible?. *Group & Organization Management*, *31*(1), pp.56-63.

Hechanova, R., Beehr, T.A. and Christiansen, N.D., (2003). Antecedents and consequences of employees' adjustment to overseas assignment: a meta-analytic review. *Applied psychology*, *52*(2), pp.213-236.

Heit, E., &Rotello, C. M. (2010). Relations Between Inductive Reasoning and Deductive Reasoning. *Journal of Experimental Psychology: Learning Memory and Cognition*, *36*(3), 805–812.

Henderson, L.S., Stackman, R.W. and Lindekilde, R., (2016). The centrality of communication norm alignment, role clarity, and trust in global project teams. *International Journal of Project Management*, *34*(8), pp.1717-1730.

Henderson, L.S., Stackman, R.W. and Lindekilde, R., (2018). Why cultural intelligence matters on global project teams. *International Journal of Project Management*, *36*(7), pp.954-967.

Hofstede, G., (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.

Imai, L. and Gelfand, M.J., (2010). The culturally intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes. *Organizational behavior and human decision processes*, *112*(2), pp.83-98.

Joshi, A., Kale, S., Chandel, S. and Pal, D.K., 2015. Likert scale: Explored and explained. *Current Journal of Applied Science and Technology*, pp.396-403.

Karma, K. and Vedina, R., (2009). Cultural intelligence as a prism between workforce diversity and performance in a modern organization. *Review of International Comparative Management*, *10*(3), pp.527-542.

Keles, O. and Battal, T., (2017). A model for innovation culture management in organizations (IVALUE 7). *International Journal of Innovation*, *5*(3), pp.361-374.

Kim, K. and Slocum Jr, J.W., (2008). Individual differences and expatriate assignment effectiveness: The case of US-based Korean expatriates. *Journal of World Business*, *43*(1), pp.109-126.

Kiznyte, J., Ciutiene, R. and Dechange, A., (2015). Applying cultural intelligence in international project management. *PM World Journal*, *4*(6), pp.202-213

Konanahalli, A., Oyedele, L.O., Spillane, J., Coates, R., Von Meding, J. and Ebohon, J., (2014). Cross-cultural intelligence (CQ): It's impact on British expatriate adjustment on international construction projects. *International Journal of Managing Projects in Business*.7, 423-448

Krumm, S., Terwiel, K. and Hertel, G., (2013). Challenges in norm formation and adherence. *Journal of Personnel Psychology*.12, 33-44

Kuipers, T. A. F. (2013). Philosophy of design research. In *New Challenges to Philosophy of Science* (pp. 457–466).

Kumar, N. and Rose, R.C., (2008). The bond between intelligences: Cultural, emotional, and social. *Performance Improvement*, *47*(10), pp.42-48.

Kumar, N., Che Rose, R. and Sri Ramalu, S., (2008). The effects of personality and cultural intelligence on international assignment effectiveness: a review. *Journal of Social Sciences*, *4*(4), pp.320-328.

Lee, L.Y. and (Sukoco), B.M., 2010. The effects of cultural intelligence on expatriate performance: The moderating effects of international experience. *The international journal of human resource management*, *21*(7), pp.963-981.

Livermore, D. and Soon, A.N.G., (2015). *Leading with cultural intelligence: The real secret to success*. Amacom.

MacNab, B.R. and Worthley, R., (2012). Individual characteristics as predictors of cultural intelligence development: The relevance of self-efficacy. *International Journal of Intercultural Relations*, *36*(1), pp.62-71.

Martinsuo, M., (2020). The management of values in project business: Adjusting beliefs to transform project practices and outcomes. *Project Management Journal*, *51*(4), pp.389-399.

Mayer, J.D., Roberts, R.D. and Barsade, S.G., (2008). Human abilities: Emotional intelligence. *Annu. Rev. Psychol.*, *59*, pp.507-536.

Messner, W., (2015). Measuring existent intercultural effectiveness in global teams. *International Journal of Managing Projects in Business*. 8, 107-132

Ng, K.Y., Van Dyne, L. and Ang, S., (2012). Cultural intelligence: A review, reflections, and recommendations for future research. Applying organizational Psychology in the workplace. Washington, DC: American Psychological Association, 29-58

Patel, T. and Salih, A., (2018). Cultural intelligence: A dynamic and interactional framework. *International Studies of Management & Organization*, *48*(4), pp.358-385.

Project Management Institute and American National Standards Institute, (2008). A guide to the project management body of knowledge. Project Management Institute.

Qu, S. Q., and Dumay, J. (2013). The qualitative research interview. *Qualitative Research in Accounting & Management*, *8*(3), 238–264

Ramalu, S., Chuah, C.W. and Che Rose, R., (2011). The effects of cultural intelligence on cross-cultural adjustment and job performance amongst expatriates in Malaysia. *International Journal of Business and Social Science*, *2*(9), pp.59-71.

Saunders, M. N., Lewis, P. and Thornhill, A. (2009) *Research methods for business students*, Page 52, 5th ed. Harlow: Prentice Hall

Shaffer, M.A. and Harrison, D.A., (1998). Expatriates' psychological withdrawal from international assignments: work, nonwork, and family influences. *Personnel psychology*,*51*(1), pp.87-118.

Shay, J.P. and Baack, S., (2006). An empirical investigation of the relationships between modes and degree of expatriate adjustment and multiple measures of performance. *International Journal of Cross-Cultural Management*, *6*(3), pp.275-294.

Slevitch, L. (2011). Qualitative and quantitative methodologies compared: Ontological and epistemological perspectives. *Journal of Quality Assurance in Hospitality and Tourism*, *12*(1), 73–81.

Sternberg, R.J., (1997). The concept of intelligence and its role in lifelong learning and success. *American psychologist*, *52*(10), p.1030.

Takeuchi, R. and Chen, J., (2013). The impact of international experiences for expatriates' cross-cultural adjustment: A theoretical review and a critique. *Organizational Psychology Review*, *3*(3), pp.248-290.

Takeuchi, R., Yun, S. and Tesluk, P.E., (2002). An examination of crossover and spillover effects of spousal and expatriate cross-cultural adjustment on expatriate outcomes. *Journal of applied psychology*, *87*(4), p.655.

Templer, K.J., Tay, C. and Chandrasekar, N.A., (2006). Motivational cultural intelligence, realistic job preview, realistic living conditions preview, and cross-cultural adjustment. *Group & Organization Management*, *31*(1), pp.154-173.

Thomas, D.C., (2006). Domain and development of cultural intelligence: The importance of mindfulness. *Group & Organization Management*, *31*(1), pp.78-99.

Thomas, D.C., Elron, E., Stahl, G., Ekelund, B.Z., Ravlin, E.C., Cerdin, J.L., Poelmans, S., Brislin, R., Pekerti, A., Aycan, Z. and Maznevski, M., (2008). Cultural intelligence: Domain and assessment. *International Journal of Cross Cultural Management*, *8*(2), pp.123-143.

Van Dyne, L., Ang, S., Ng, K.Y., Rockstuhl, T., Tan, M.L. and Koh, C., (2012). Sub-dimensions of the four-factor model of cultural intelligence: Expanding the conceptualization and measurement of cultural intelligence. *Social and personality psychology compass*, *6*(4), pp.295-313.

Verburg, R.M., Bosch-Sijtsema, P. and Vartiainen, M., (2013). Getting it done: Critical success factors for project managers in virtual work settings. *International journal of project management*, *31*(1), pp.68-79.

Wang, M., (2016). Effects of expatriates 'cultural intelligence on cross-cultural adjustment and job performance. *Revista de Cercetareşi Intervenţie Socială*, (55), pp.231-243.

Yitmen, I., (2013). Organizational cultural intelligence: A competitive capability for strategic alliances in the international construction industry. *Project Management Journal*, *44*(4), pp.5-25.

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Bibliography

Cramton, C.D. and Hinds, P.J., 2014. An embedded model of cultural adaptation in global teams. *Organization Science*, *25*(4), pp.1056-1081.

Goertzen, M.J., 2017. Introduction to quantitative research and data. *Library Technology Reports*, *53*(4), pp.12-18.

Suda, L. V. (2007). *The meaning and importance of culture for project success*. Retrieved from pmi.org: https://www.pmi.org/learning/library/meaning-importance-culture-project-success-7361

Appendices

Appendix 1 Survey Questionnaire

Cultural Quotient as a Critical Success Factor in Project Management - A study of IT/Finan Multinational Organisations in Ireland

My name is Michael Moskwa, an MBA student at Dublin Business School currently pursuing my final MBA dissertation. My research topic is 'Cultural Quotient as a Critical Success Factor in Project Management - A study of IT/Finance Multinational Organisations in Ireland'. This research is voluntary, you as a respondent need to know about confidentiality, integrity, accountability protocols, about the data I am collecting through this academic research. You will be asked to complete a questionnaire for this project. Because this is a study project for academic purposes only, your responses will be kept fully confidential and anonymous. Please read and agree on the participant consent form after reading it. Attempt all questions as each response is important.
The survey consists of two sections (A & B), the first section is demographics, the second section are questions regarding the research topic.

It should only take you 5 -7 minutes to complete the questionnaire. It is completely voluntary for you to participate in this study.

You have the freedom to withdraw from the study at any time.

By clicking the OK button below, you agree to the following:

- Your participation in the study is entirely at your discretion and voluntary.

- You are at least 18 years old.

- You are currently residing in the Republic of Ireland.

- You understand that you have the option to stop participating at any moment for any reason.

- If you decide to exit the survey, you may close the page at any time

Thank you for your participation in this academic survey.

* 1. Consent:

By clicking the top button below, you agree to the following:

- Your participation in the study is entirely at your discretion and voluntary.

- You are at least 18 years old.

- You are currently residing in the Republic of Ireland.

- You understand that you have the option to stop participating at any moment for any reason.

- If you decide to exit the survey, you may close the page at any time

Thank you.

- ○ I consent, begin the study
- ○ I do not consent, I do not wish to participate

* 2. Did you have one full life cycle project experience in IT/Finance organisation in the last 2 years:

- ○ Yes
- ○ No

* 3. What is your gender?

- ○ Female
- ○ Male
- ○ Other (please specify)

* 4. What is your age bracket?

- ○ 18 to 21
- ○ 22 to 24
- ○ 25 to 34
- ○ 35 to 44
- ○ 45 to 54
- ○ 55+

* 5. Which of the following categories best describes your employment status?

- ( ) Employed, working full-time
- ( ) Employed, working part-time
- ( ) Self-Employed / Contracting / Consulting
- ( ) Not employed
- ( ) Retired
- ( ) Unable to work due to medical / disability issues

* 6. What is the size of your organization?

- ( ) 0-1000 employees
- ( ) 1001-5000 employees
- ( ) 5001-10000 employees
- ( ) 10001-20000 employees
- ( ) 20000 +

* 7. How long have you been with the company?

- ( ) 0-3 years
- ( ) 4-6 years
- ( ) 7-9 years
- ( ) 10-15 years
- ( ) 15 + years

* 8. Which of the following industries closely represent your past or present work experience? (whether being a member of project team/s, or being a project leader)?

- [ ] Finance
- [ ] IT
- [ ] Fin-Tech
- [ ] Insurance
- [ ] Other (please specify)
- [ ] Healthcare
- [ ] Manufacturing
- [ ] Education

* 9. What is the highest level of education you have completed?

- [ ] High School
- [ ] Third level Degree level 7/8 (Bachelor Degree, Honours Bachelor Degree, or equivalent)
- [ ] Third level Degree level 9 (Masters)
- [ ] Third level Degree level 10 (PhD)
- [ ] Professional courses - PMI, etc.
- [ ] Vocational courses

* 10. What is your nationality?

* 11. If you have worked abroad, what is your experience?

- less than 1 year
- 1-2 years
- 3-4 years
- 5-9 years
- 10 + years
- I have not worked abroad
- I have not worked abroad, however I have worked/working in multicultural teams

* 12. Do you have experience of any cross-cultural training* or experience?

(*E.g., Cultural intelligence - working smarter in multicultural organisation, communicating across cultures in a global diverse team, Cross cultural communication and business etiquette Building on culture, identity, perception for better workgroups, other similar trainings)

- Yes
- No

* 13. How do you rate your exposure with people from other cultures?

- Experienced (more than 5 years)
- Not so much (1 year or less)
- Average (up to 5 years)

* 14. How do you assess your cross-cultural experience:

- Poor
- Fair
- Good
- Very Good
- Excellent

PART B: CONTEXTUAL

Please read the following statements and rate your answers according to the weighted rating scale below:

SA (strongly agree),
A (agree),
N (neutral),
D (disagree),
SD (strongly disagree)

Weight of your responses: SA (5) A (4) N (3) D(2) SD (1)

* 15. Metacognition:

The extent of my agreeability or disagreeability with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds in IT/Finance Projects.	○	○	○	○	○
I adjust my own cultural knowledge as I interact with IT/Finance team members from a different culture that is unfamiliar to me.	○	○	○	○	○
I am conscious about the cultural knowledge which I apply to cross-cultural interactions.	○	○	○	○	○
I check the accuracy of my cultural knowledge as I interact with individuals from different cultures.	○	○	○	○	○

* 16. Cognitive

The extent of my agreeability or disagreeability with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I know the rules (e.g., vocabulary, grammar) of other languages					
I know the cultural values of other cultures					
I know the rules for expressing non-verbal behaviours in other cultures					
As a team member in IT/Finance projects we are wary about expressions before other culture members					

* 17. Motivational

The extent of my agreeability or disagreeability with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I interact with people from different cultures as a part of IT/Finance job.					
I am confident that I can socialize with people of multiple cultures that are unfamiliar to me.					
I am sure I can deal with the stresses of adjusting to a culture that is new to me.					
I am confident that I can get accustomed to conditions in a multicultural IT/Finance team environment.					
I take initiative to resolve culture-based misunderstandings in our IT/Finance project team.					

* 18. Behavioural

The extent of my agreeability or disagreeability with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it.					
I use pause and silence differently to suit different cross-cultural situations in IT/Finance project team meetings.					
I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it.					
I change my non-verbal behaviour when a cross-cultural situation in IT/Finance project requires it.					
I alter my facial expressions when a cross-cultural interaction in IT/Finance project requires it.					

Appendix 2 Interview Questions

Interview Questions and Objectives	
Objectives	**Interview questions**
To understand cultural quotient within project management, and examine its impact on successful project outcome in IT/Finance Multinational Organisations in Ireland from literature review	1) How far is your knowledge about CQ helping you in managing cultural differences? Please elaborate. 2) How does CQ helps you in managing cultural differences while working as a team member within IT/Finance projects overseas? Please elaborate. 3) How does CQ help you in adapting to cross-cultural situations? 4) Does CQ help improve your process of communication? Please elaborate. 5.1) How did CQ help you to manage relationships with different stakeholders within IT/Finance projects? 5.2) How does CQ contribute to the efficiency and success of IT/Finance projects? Please elaborate.
To examine the CQ strengths, weaknesses, negative and positive elements impacting project performance outcomes IT/Finance Multinational Organisations in Ireland	6) What do you think is or has been the major strengths of CQ for successful IT/Finance project outcomes and performance? Please elaborate. 7) Do you perceive whether there could be negative impacts of CQ within IT/Finance projects? If so, what were or what could be the major weaknesses and downsides of CQ within IT/Finance projects in any given situation? Please elaborate. 8) Can CQ impact unfavourably within IT/Finance projects? If yes, how and in which specific aspects of the project? Please elaborate.
To find out gaps and recommend best practices in CQ for improving project performance outcomes in IT/Finance Multinational Organisations in Ireland	9) Despite familiarity with CQ and its dimensions, what challenges did you or your project team members usually face in managing IT/Finance projects in a cross-cultural setting?

Appendix 3 Reliability of the research instrument

Table 15: *Reliability of the research instrument (Source: Author)*

Research Tool	Cronbach's Alpha
Cultural quotient (CQ) and others	0.763

The decision rule states that: Very Good Reliability = Result 0.80 -0.95; Good Reliability Result= 0.70 -0.80; Fair Reliability Result= 0.60 -0.70 and Poor Reliability Result = Less than 0.60 (Decision rule adopted from Sekaram & Bougie, 2010).

Table 16: *Reliability Test Cases (Source: Author)*

Reliability Test Cases

Cases	N	%
Valid	138	93.9
Excluded[a]	9	6.1
Total	147	100.0

a. Listwise deletion based on all variables in the procedure.

Table 17: *Reliability Test Statistics (Source: Author)*

Reliability Test Statistics

Cronbach's Alpha	N of Items
.763	30

Table 18: *Itemise Cronbach's Alpha Score (Source: Author)*

Items Cronbach's Alpha Score

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Did you have one full life cycle project experience in IT/Finance organization in the last 2 years:	91.94	102.960	-.068	.767
What is your gender?	91.80	101.886	.040	.764
What is your age bracket?	89.75	98.745	.170	.761
Which of the following categories best describes your employment status?	91.88	101.081	.046	.767
What is the size of your organization?	90.98	97.846	.087	.773
How long have you been with the company?	91.73	98.081	.175	.762

Which of the following industries closely represent your past or present work experience? (Whether being a member of project team/s, or being a project leader)?	91.45	102.629	-.076	.786
What is the highest level of education you have completed?	90.81	102.957	-.064	.770
If you have worked abroad, what is your experience?	89.68	97.065	.072	.780
Do you have experience of any cross-cultural training* or experience? (*E.g., Cultural intelligence - working smarter in multicultural organization, communicating across cultures in a global diverse team, Cross cultural communication, and business etiquette	91.99	104.117	-.197	.770
How do you rate your exposure with people from other cultures?	91.76	103.993	-.129	.773
How do you assess your cross-cultural experience:	89.66	94.781	.346	.752
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds in IT/Finance Projects	89.21	93.642	.480	.746
I adjust my own cultural knowledge as I interact with IT/Finance team members from a different culture that is unfamiliar to me.	89.30	95.031	.447	.749
I am conscious about the cultural knowledge which I apply to cross-cultural interactions.	89.35	91.966	.606	.740
I check the accuracy of my cultural knowledge as I interact with individuals from different cultures	89.47	93.360	.445	.747
I know the rules (e.g., vocabulary, grammar) of other languages	89.96	93.341	.355	.751
I know the cultural values of other cultures	89.56	92.935	.505	.744
I know the rules for expressing non-verbal behaviours in other cultures	89.86	92.660	.493	.744

As a team member in IT/Finance projects we are wary about expressions before other culture members	89.78	93.587	.491	.746
I interact with people from different cultures as a part of IT/Finance job	88.92	94.497	.474	.747
I am confident that I can socialize with people of multiple cultures that are unfamiliar to me	89.01	93.978	.481	.747
I am sure I can deal with the stresses of adjusting to a culture that is new to me	89.20	94.586	.476	.747
I am confident that I can get accustomed to conditions in a multicultural IT/Finance team environment	89.07	93.901	.494	.746
I take initiative to resolve culture-based misunderstandings in our IT/Finance project team	89.54	92.557	.537	.743
I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it	89.53	94.295	.432	.748
I use pause and silence differently to suit different cross-cultural	89.67	95.421	.361	.752
I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it.	89.39	97.364	.297	.755
I change my non-verbal behaviour when a cross-cultural situation in IT/Finance project requires it	89.75	93.840	.449	.747
I alter my facial expressions when a cross-cultural interaction in IT/Finance project requires it.	90.16	94.894	.341	.752

Appendix 4 Quantitative questions

This Appendix 4 should be read in conjunction with Chapter 4.1.1 Demographic data analysis.

Gender: In this study of respondent's gender, 53.74% of respondents were female and 46.26% were male, facts given in below Figure 5.

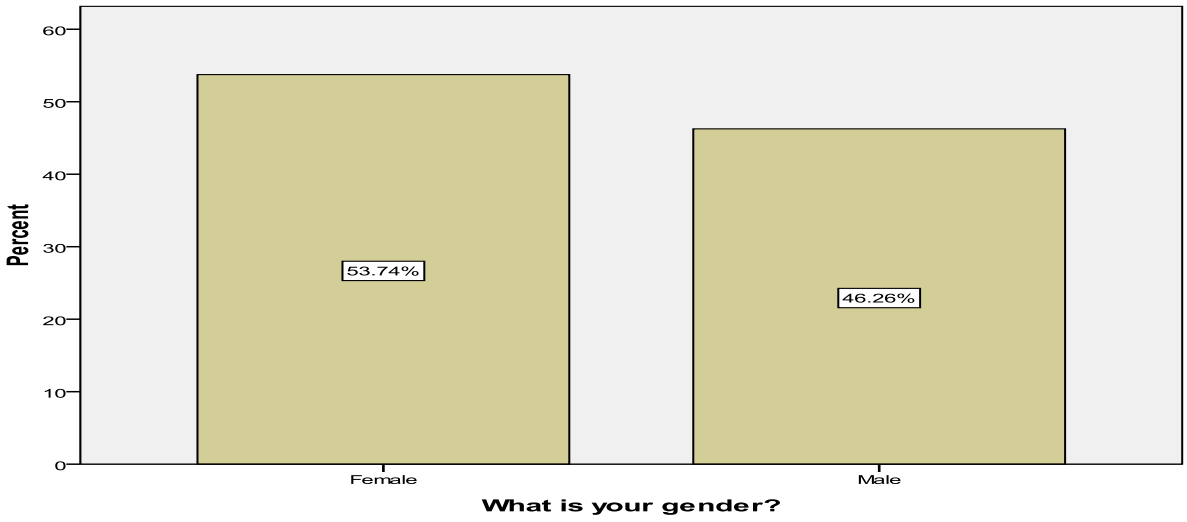


Figure 5: *Gender demographics*

Age: In terms of age, majority of respondents, 51.02%, belong in the age group of '25 to 34 years', '35 to 44 years' 33.33%, totalling 84.35% given in Figure 6.

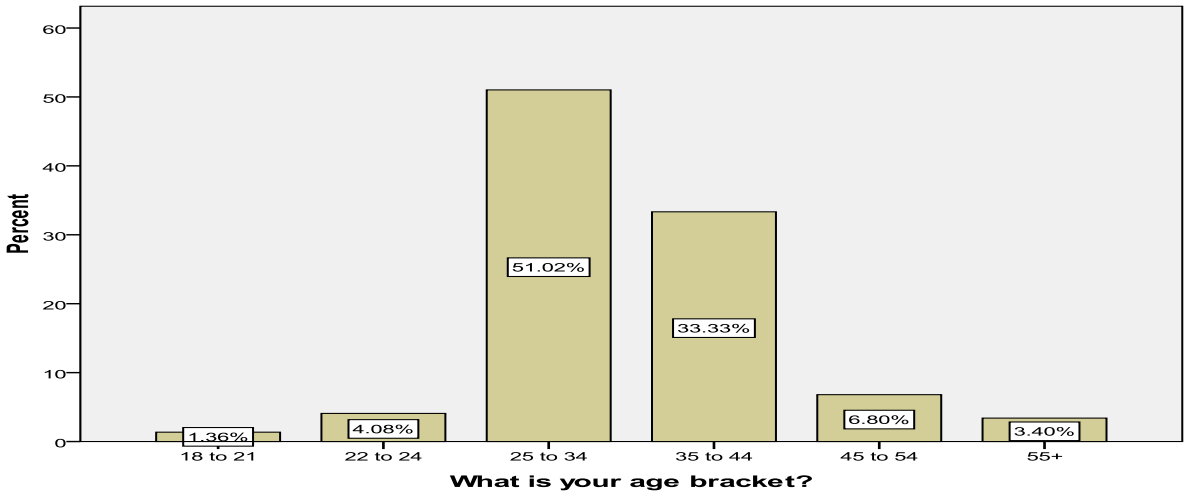


Figure 6: *Age demographics*

Education: 51.70% of the respondents acquired Third Level Degree level 7/8 (Bachelor Degree, Honours Bachelor Degree, or equivalent) and 37.41% had Third level Degree level 9 (Masters), with a total of 89.11%. In addition, 6.8% respondents were in the age group of '45 to 54 years', facts given in Figure 7.

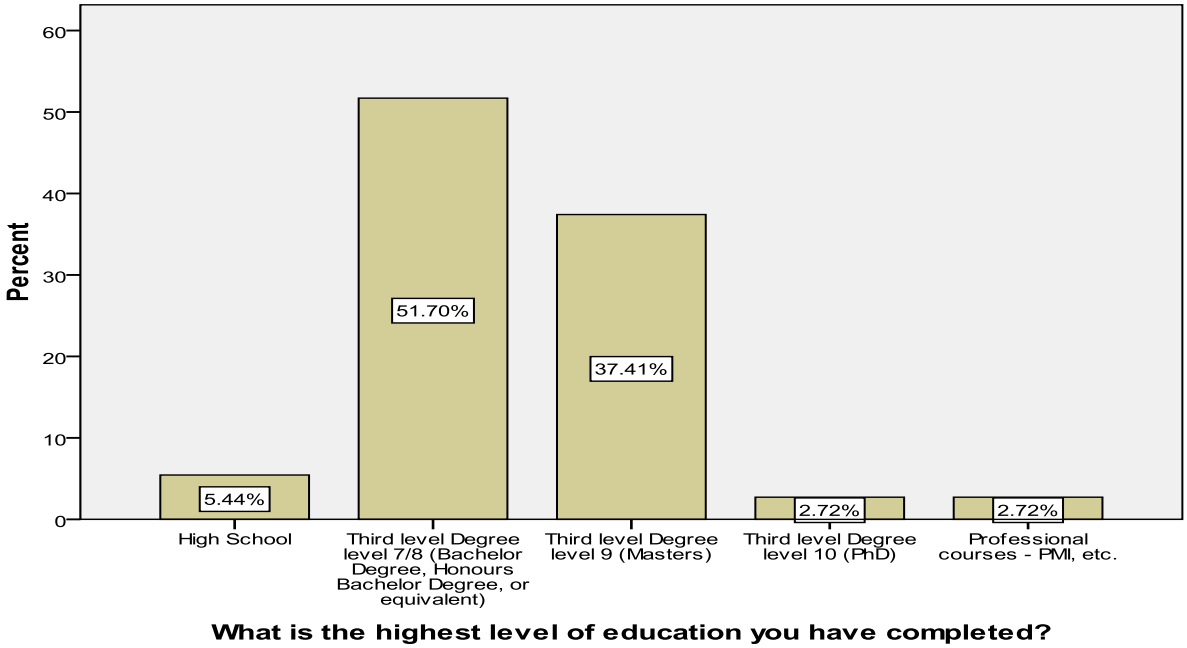


Figure 7: *Level of education demographics*

One full life cycle project experience within IT/Finance organization in the last 2 years: As per the facts given in Figure 8, of the total 147 respondents, 99 of them (67.35%) had one full life cycle project experience within IT/Finance organization in last 2 years.

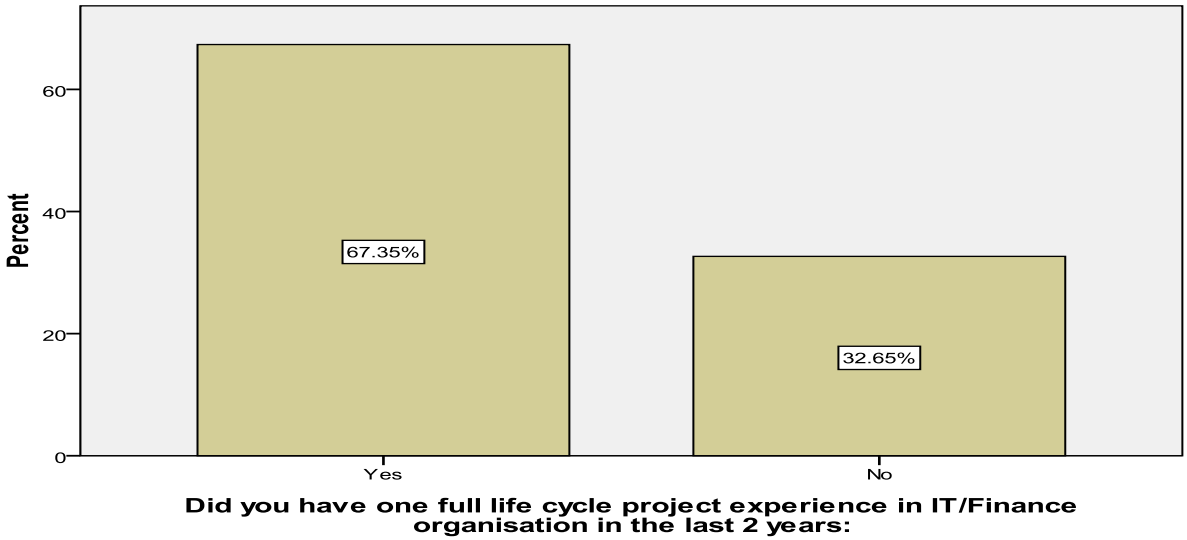


Figure 8: *One full project life cycle experience demographics*

Categories best describes respondent's employment status: Further delving in the analysis, the respondent's employment status which is found on 80.27% of the respondents were working professionals as 'Employed, working full-time' given in Figure 9. In addition, among total 'Employed, working full-time', 54.06% respondents had 'one full life cycle project experience within IT/Finance organization in last 2 years' - facts given in Figure 8.

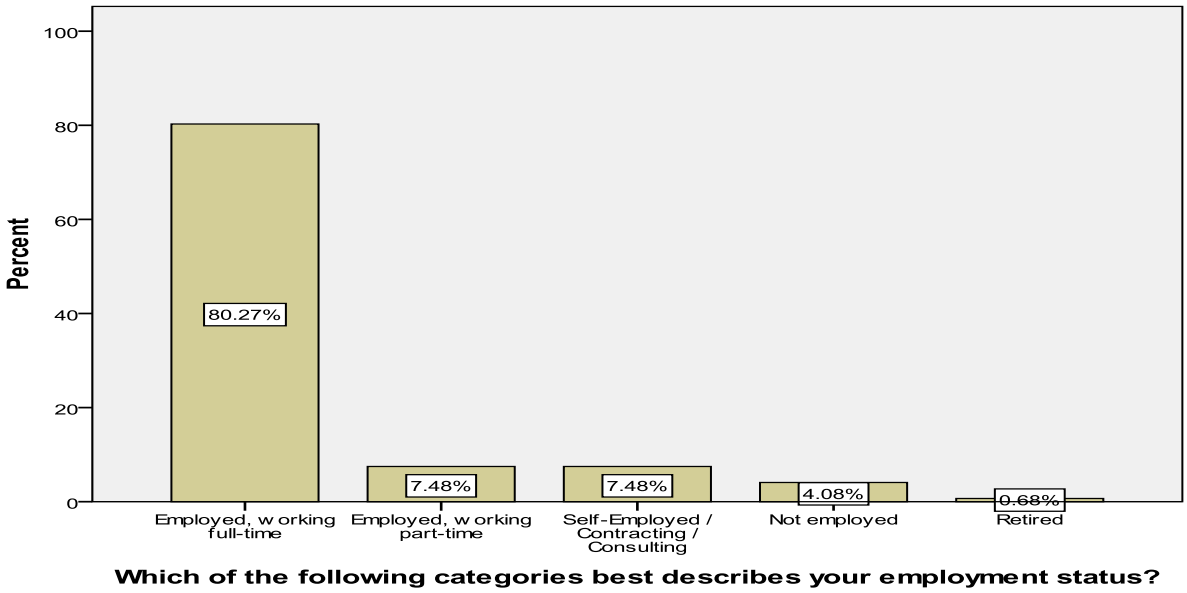


Figure 9: *Employment status demographics*

Size of respondent's organization: According to Figure 10, 42.86% of the respondents have worked in organizations having 0-1,000 employees, 26.53% have worked in organizations having 1,001-1,500 employees, 10.88% have worked in organizations having employees 5,001-10,000 employees and 17.01% have worked in organizations having 20,000+ employees.

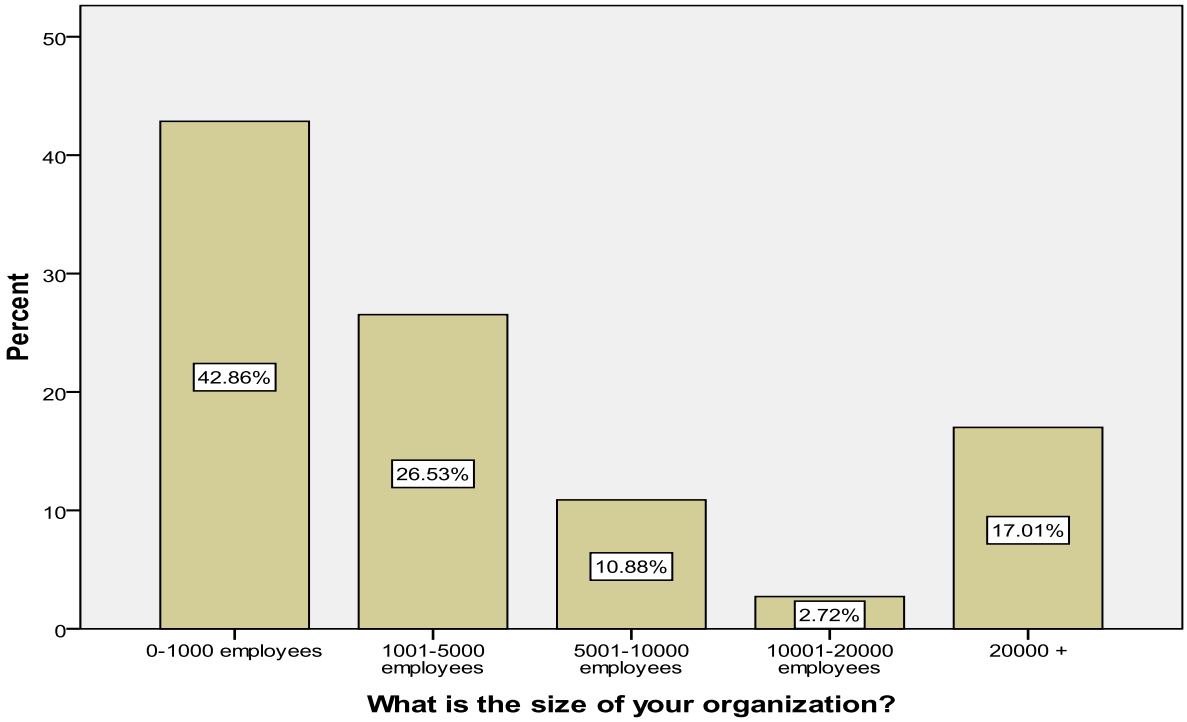


Figure 10: *Organisation size demographics*

Respondent's work duration in a company: Figure 11 depicts 72.11% had '0-3 years' of work experience, 13.61% had '4-6 years' of work experience and 8.84% had '10-15 years' working experience.

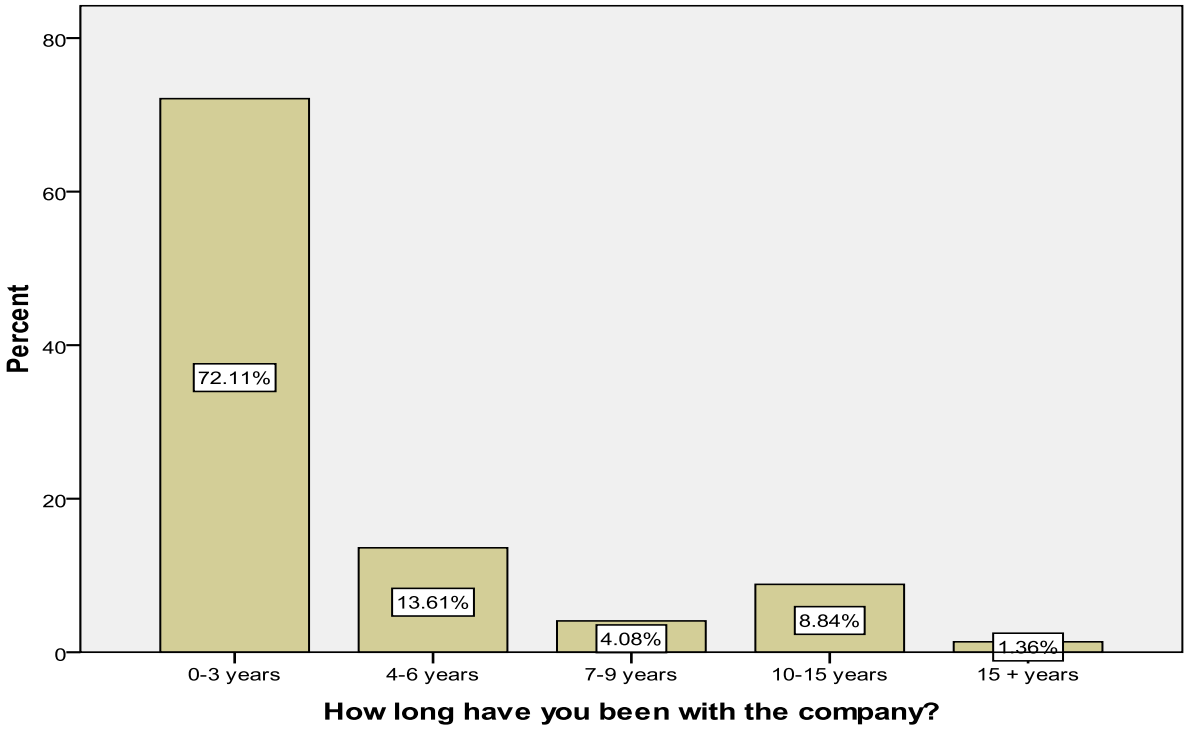


Figure 11: *Company tenure demographics*

In addition to the above, a cross tabulation facts shown in Figure 11 and Figure 8, 48.57% respondents have both 0-3 years of great work experience and 'one full life cycle project experience in IT/Finance organization in the last 2 years'.

Respondent's industry of work: Respondent's industry experience shown in Figure 12 that 42.86% of the respondents were from Finance industry, 40.48%were from IT industry, 5.56% were from Fin-Tech Industry and 5.56% of the respondents were from Healthcare industry.

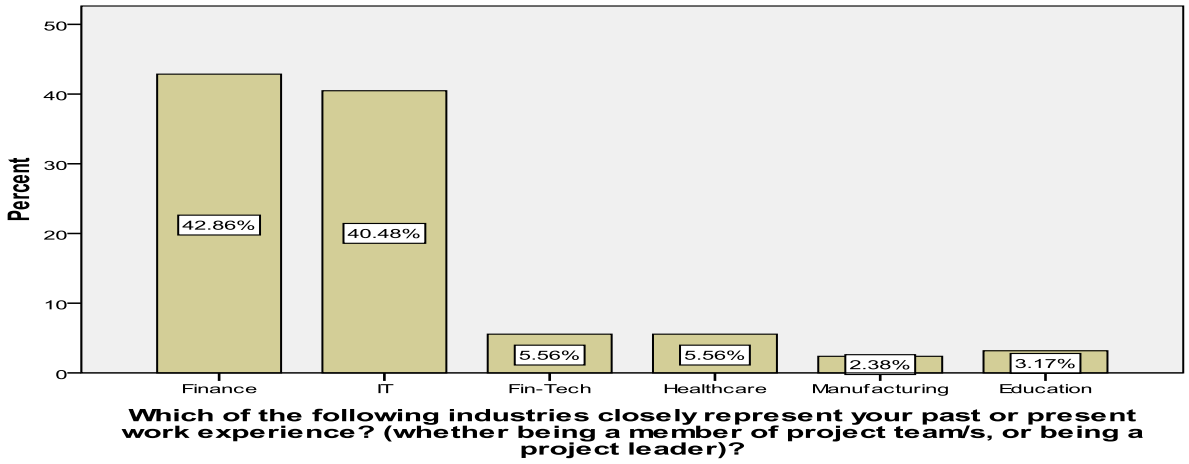


Figure 12: *Industry experience demographics*

Respondent's nationality: Figure 13 shows 27.21% of the respondents were Irish nationality, 15.65% of the respondents were Indian nationality, 6.80% of the respondents were from USA, 6.80% of the respondents were Filipino nationality, 4.76% of the respondents were Chinese nationality, 4.76% of the respondents were Italian nationality and rest were from the other parts of the world.

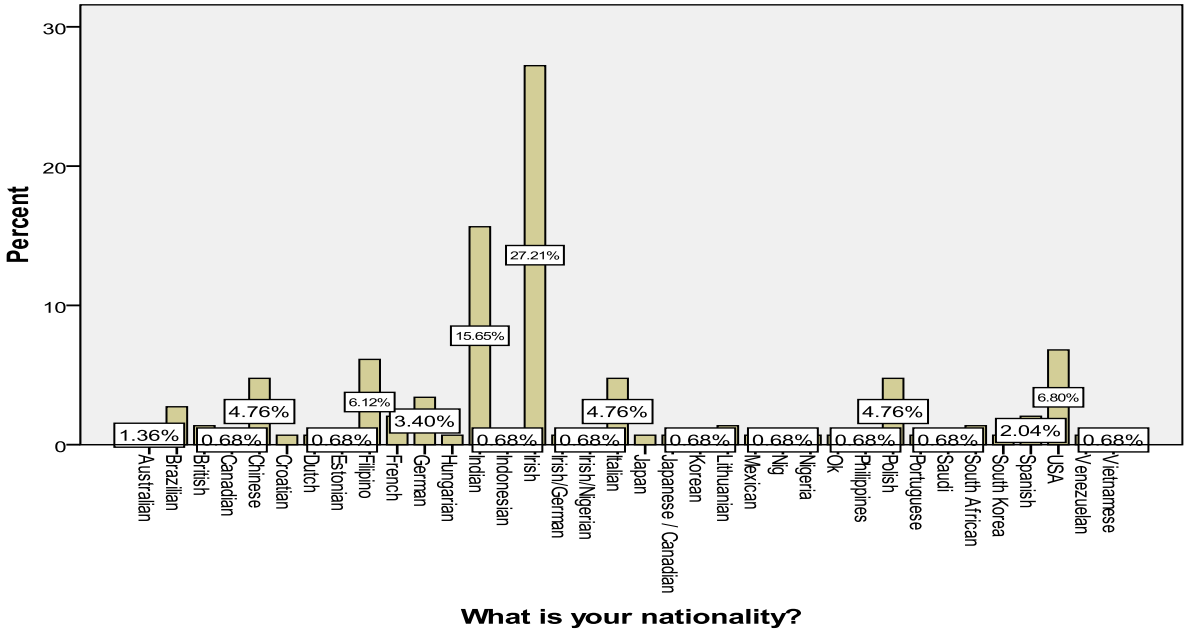


Figure 13: *Nationality demographics*

Abroad work experience: Abroad work experience is an important parameter in this study shown in Figure 14. According to the facts, 13.61% of the respondents have 'less than 1 year' of abroad work experience, 16.33% of the respondents have '1-2 years' of abroad work experience, 18.37% of the respondents have '3-4 years' of abroad work experience, 23.13% of the respondents have '5-9 years' of abroad work experience, 8.84% of the respondents have '10+ years' of abroad work experience, 5.44% of the respondents have 'have not worked abroad, however have worked/working in multicultural teams' and rest 14.29% have not worked abroad.

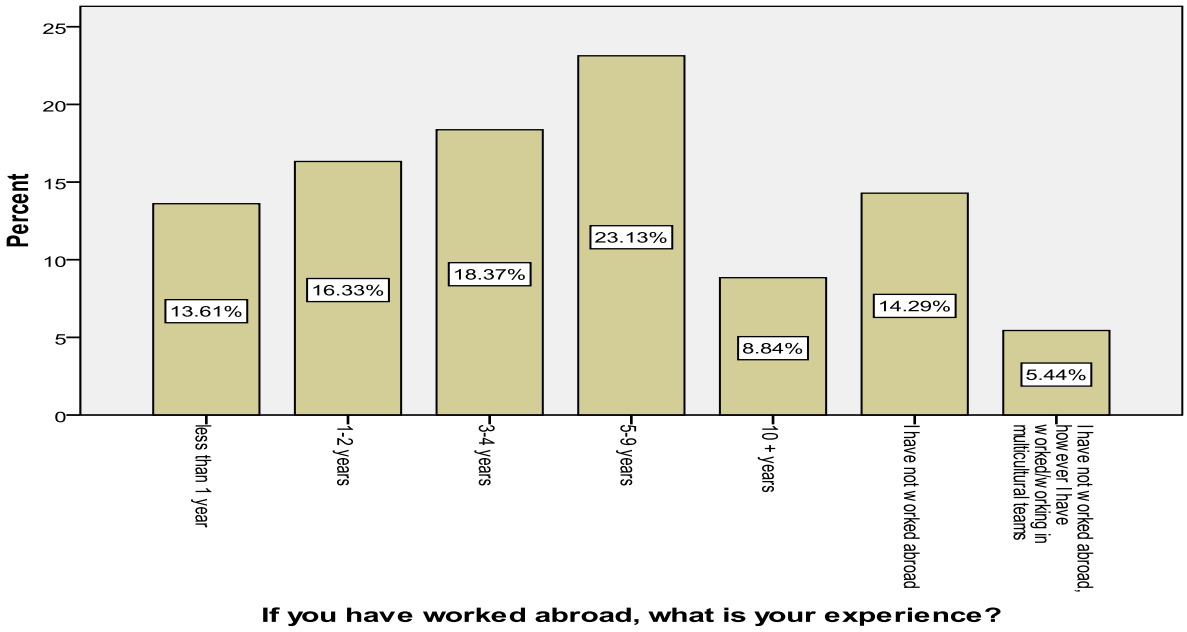


Figure 14: *Abroad work experience demographics*

Work experience with cross cultural community: According to Figure 15**,** 72.79% have cross-cultural training or work experience and 27.21% have no such experience.

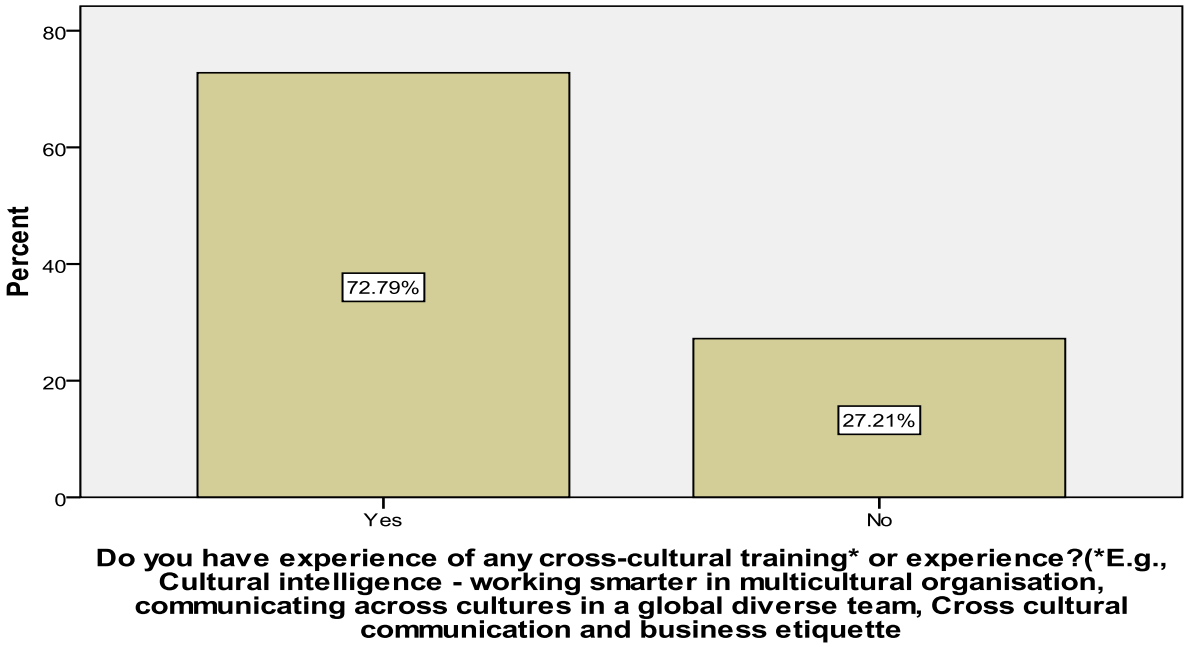


Figure 15: *Cross-cultural training/experience demographics*

Cross-cultural experience rating: Cross-cultural experience rating is an important fact revealed in Figure 16, that among the experienced respondents, 68.71% have experienced (more than 5 years) and 19.05% have average (up to 5 years) cross-cultural work experience.

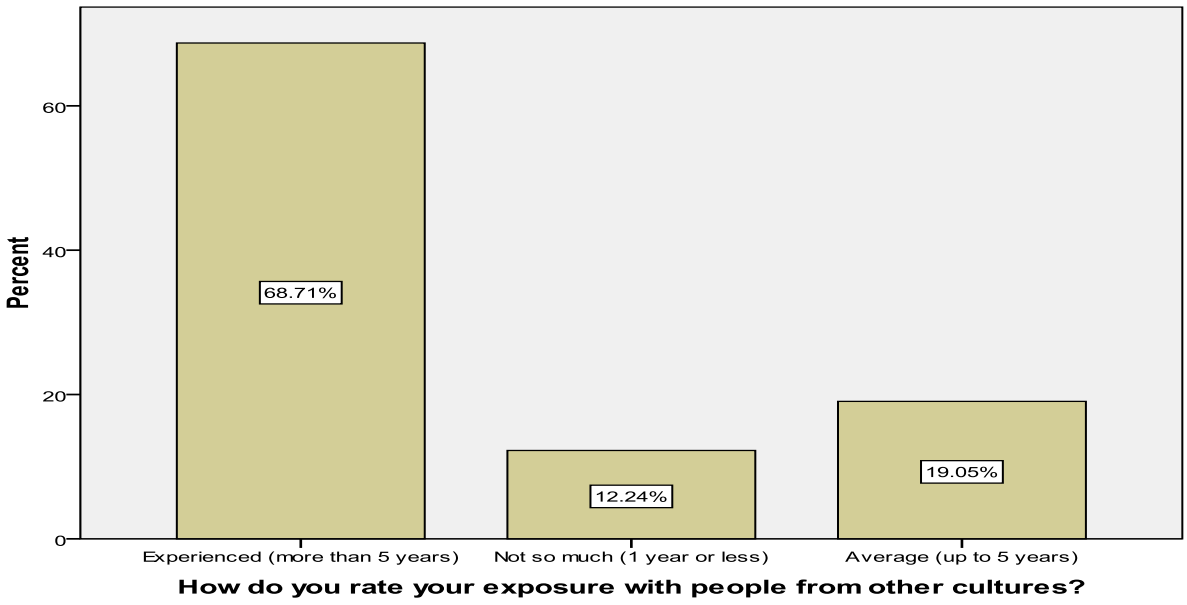


Figure 16: *Cross-cultural experience demographics*

Cross-cultural experience: Cross-cultural work experience measures community's behaviour in cross-cultural environment and is an important parameter. Facts shown in Figure 17 that 31.29% have 'Good' experience, 33.33% have 'Very Good' experience, 20.41% have 'Excellent' experience and 14.97% have fair or poor experience.

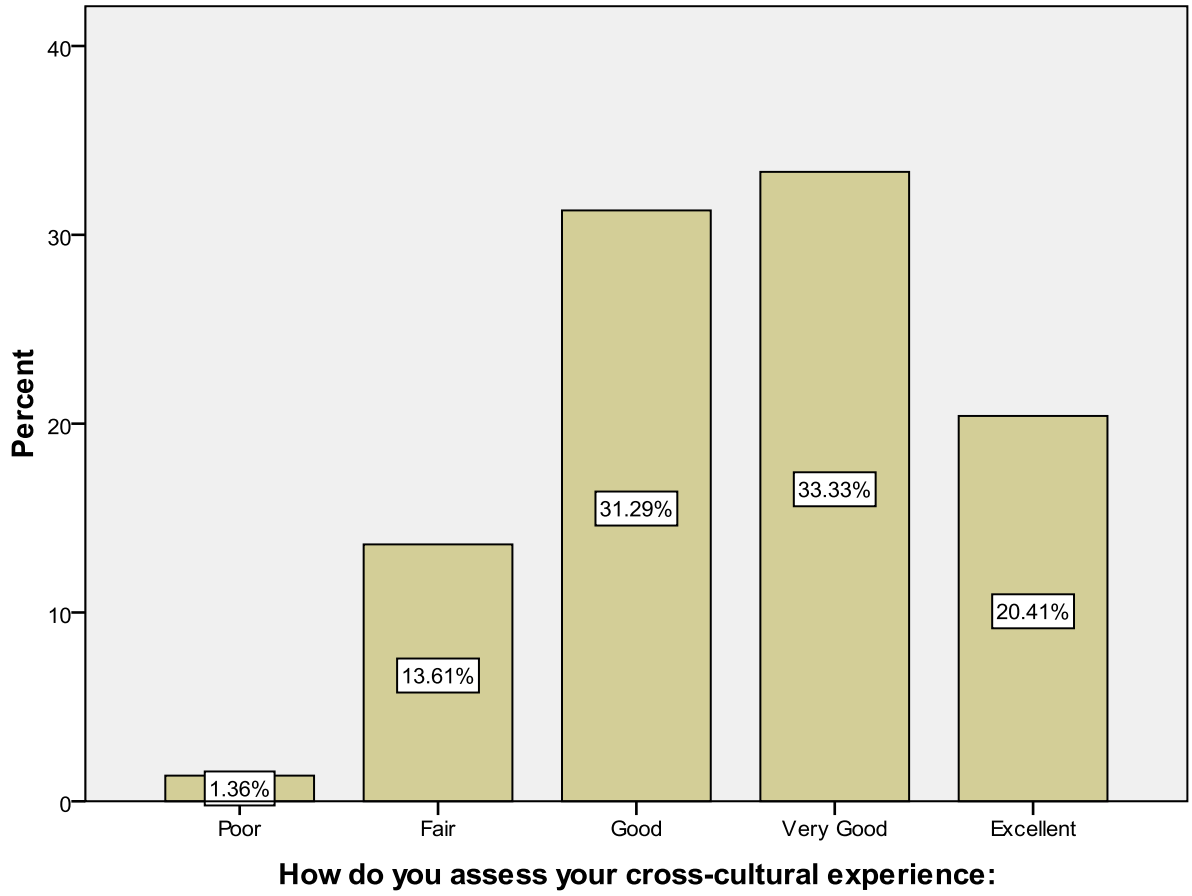


Figure 17: *Cross-cultural experience self-assessment*

Table 19: *Statistical Results of Quantitative analysis - Metacognitive (Source: Author)*

Metacognitive	Numbers				
	Valid	Missing	Mean	Median	Mode
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds in IT-Finance Projects	138	9	4.04	4.00	4
I adjust my own cultural knowledge as I interact with IT/Finance team members from a different culture that is unfamiliar to me.	138	9	3.94	4.00	4
I am conscious about the cultural knowledge which I apply to cross-cultural interactions.	138	9	3.90	4.00	4
I check the accuracy of my cultural knowledge as I interact with individuals from different cultures	138	9	3.78	4.00	4

Table 20: *Statistical Results of Quantitative analysis – Cognitive (Source: Author)*

Cognitive	Numbers				
	Valid	Missing	Mean	Median	Mode
I know the rules (e.g., vocabulary, grammar) of other languages	138	9	3.29	4.00	4
I know the cultural values of other cultures	138	9	3.69	4.00	4
I know the rules for expressing non-verbal behaviours in other cultures	138	9	3.38	4.00	4
As a team member in IT/Finance projects we are wary about expressions before other culture members	138	9	3.46	3.50	4

Table 21: *Statistical Results of Quantitative analysis – Motivational (Source: Author)*

Motivational	Numbers				
	Valid	Missing	Mean	Median	Mode
I interact with people from different cultures as a part of IT Finance job	138	9	4.33	4.00	5
I am confident that I can socialize with people of multiple cultures that are unfamiliar to me	138	9	4.24	4.00	4
I am sure I can deal with the stresses of adjusting to a culture that is new to me	138	9	4.04	4.00	4
I am confident that I can get accustomed to conditions in a multicultural IT Finance team environment	138	9	4.18	4.00	4
I take initiative to resolve culture-based misunderstandings in our IT Finance project team	138	9	3.71	4.00	4

Table 22: *Statistical Results of Quantitative analysis – Behavioural (Source: Author)*

Behavioural	Numbers				
	Valid	Missing	Mean	Median	Mode
I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT Finance project requires it	138	9	3.72	4.00	4
I use pause and silence differently to suit different cross-cultural	138	9	3.58	4.00	4
I vary the rate of my speaking when a cross-cultural situation in IT Finance project requires it.	138	9	3.86	4.00	4
I change my non-verbal behaviour when a cross-cultural situation in IT Finance project requires it	138	9	3.50	4.00	4
I alter my facial expressions when a cross-cultural interaction in IT Finance project requires it.	138	9	3.09	3.00	4

Test of Hypotheses

In this section, the hypotheses statements were tested in order to prove if the findings of this research were statistically significant and unlikely to have occurred by chance. The decision criteria states that if the p value is less than the pre-set level of significance ($p<0.05$), the null hypothesis is rejected. On the other hand, if the p value is greater than the pre-set level of significance ($p>0.05$), the null hypothesis is not rejected.

One sample t-test is used to test the research hypotheses. One sample t-test is applicable if population mean is known. In this case the population mean can be considered as 4 or above (agree or strongly agree). Illustratively:

H_0: Variable has positive impact on project success if observed mean is >=4 (agree or strongly agree)

H_1: Variable has negative impact on project success if observed mean is <4 (agree or strongly agree)

Hypotheses testing can be done at 5% confidence interval, as pre-set level of significance value.

Hypotheses 1

H_0: Cultural quotient does not impact negatively on the management of projects

H_1: Cultural quotient impacts positively on the management of projects

Cognitive Approach (see Table 23):

I know the rules (e.g., vocabulary, grammar) of other languages: At 5% confidence interval has significant value .000 which supports enough evidence to reject null hypothesis, means it has a positive impact on project success.

I know the cultural values of other cultures: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a positive impact on project success.

I know the rules for expressing non-verbal behaviours in other cultures: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a positive impact on project success.

As a team member in IT/Finance projects we are wary about expressions before other culture members: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a positive impact on project success.

Table 23: *One-Sample Test – Cognitive (Source: Author)*

One-Sample Test	Test Value = 4					
					95% Confidence Interval of the *Difference*	
Cognitive	t	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
I know the rules (e.g., vocabulary, grammar) of other languages	-7.270	137	.000	-.710	-.90	-.52
I know the cultural values of other cultures	-4.056	137	.000	-.312	-.46	-.16
I know the rules for expressing non-verbal behaviours in other cultures	-7.647	137	.000	-.616	-.78	-.46
As a team member in IT/Finance projects we are wary about expressions before other culture members	-7.028	137	.000	-.507	-.65	-.36

Hence, cognitive approach also supports the Alternative Hypothesis 1 (H_1): Cultural quotient impacts positively on the management of projects.

Hypotheses 2

H_0: Strengths, weaknesses, positive and negative aspects of cultural quotient do not have impact on the success or failure of project management

H_1: Strengths, weaknesses, positive and negative aspects of cultural quotient have impact on the success or failure of project management

Behavioural Approach (see Table 24):

I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

I use pause and silence differently to suit different cross-cultural: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it: At 5% confidence interval, it has significant value .059 which supports no evidence to reject null hypothesis, means it has a positive impact on project success.

I change my non-verbal behaviour when a cross-cultural situation in IT/Finance project requires it: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

I alter my facial expressions when a cross-cultural interaction in IT/Finance project requires it: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

Table 24: *One-Sample Test – Behavioural (Source: Author)*

One-Sample Test	Test Value = 4					
					95% Confidence Interval of the *Difference*	
Behavioural	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction in IT Finance project requires it	-3.953	137	.000	-.297	-.45	-.15
I use pause and silence differently to suit different cross-cultural	-5.695	137	.000	-.413	-.56	-.27
I vary the rate of my speaking when a cross-cultural situation in IT Finance project requires it.	-1.903	137	.059	-.116	-.24	.00
I change my non-verbal behaviour when a cross-cultural situation in IT Finance project requires it	-6.696	137	.000	-.507	-.66	-.36
I alter my facial expressions when a cross-cultural interaction in IT Finance project requires it.	-10.859	137	.000	-.891	-1.05	-.73

Hence, Behavioural approach also supports the Alternative Hypothesis 2 (H_1): Strengths, weaknesses, positive and negative aspects of cultural quotient have impact on the success or failure of project management.

Hypotheses 3

H_0: The ability of projects managers to be culturally intelligent is not important to the project success or failure

H_1: The ability of projects managers to be culturally intelligent is important to the project success or failure

Motivational Approach (see Table 25):

I interact with people from different cultures as a part of IT Finance job: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

I am confident that I can socialize with people of multiple cultures that are unfamiliar to me: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

I am sure I can deal with the stresses of adjusting to a culture that is new to me: At 5% confidence interval, it has significant value .122 which supports no evidence to reject null hypothesis, means it has a positive impact on project success.

I am confident that I can get accustomed to conditions in a multicultural IT Finance team environment: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

I take initiative to resolve culture-based misunderstandings in our IT Finance project team: At 5% confidence interval, it has significant value .000 which supports enough evidence to reject null hypothesis, means it has a negative impact on project success.

Table 25: *One-Sample Test – Motivational (Source: Author)*

One-Sample Test	Test Value = 4					
					95% Confidence Interval of the *Difference*	
Motivational	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
I interact with people from different cultures as a part of IT Finance job	4.771	137	.000	.326	.19	.46
I am confident that I can socialize with people of multiple cultures that are unfamiliar to me	3.995	137	.000	.261	.13	.39
I am sure I can deal with the stresses of adjusting to a culture that is new to me	1.557	137	.122	.087	-.02	.20
I am confident that I can get accustomed to conditions in a multicultural IT Finance team environment	3.152	137	.002	.203	.08	.33
I take initiative to resolve culture-based misunderstandings in our IT Finance project team	-3.661	137	.000	-.246	-.38	-.11

Hence, Motivational approach also supports the Alternative Hypothesis 3 (H_1): The ability of projects managers to be culturally intelligent is important to the project success or failure.

Appendix 5 Discussion of themes and inferences

This Appendix 5 should be read in conjunction with Chapter 4.2.3 Discussion of themes and inferences.

Further Discussion of themes and inferences:

A) Qualitative Semantic analysis:

The use of specific words in the qualitative research, that determines business relationships or networks, which typically is a value for individuals, as demonstrated through a credible analysis called semantic analysis or lexicographic analysis. The research attempted to offer a reliable and meaningful analysis of the most used words by the respondents, derived from the interview transcripts. Illustrated in the table below, it is evident that the respondents in the interview have placed importance to words such as: 'like', 'speaker', 'project', 'team', 'think', 'different', and 'cultural'. These were the frequently spoken words during the interviews, further relating to the inquisitiveness level of participants' engagement in the projects, while working as an individual team member and perceiving other individuals in the project team from different countries.

Table 26: *Frequency of certain words during the interviews (Source: Author)*

Word	Length	Count	Weighted Percentage (%)
know	4	289	2.28
like	4	269	2.12
question	8	259	2.05
speaker	7	234	1.85
unknown	7	233	1.84
project	7	171	1.35
team	4	151	1.19
think	5	147	1.16
different	9	145	1.15
cultural	8	143	1.13
number	6	131	1.03
thank	5	123	0.97
culture	7	114	0.90
one	3	101	0.80
people	6	94	0.74
read	4	94	0.74
just	4	91	0.72
projects	8	90	0.71

B) Comparison of Nodes

From constructivists theory, the list of semantic words, along with weighted average method, shows the interpretation as to how respondents who participated within IT/Finance projects were engaging a common thought process.

i) The second approach to the semantic analysis is the correlation of the codes, that contains the highest word density in each respondent's answers.

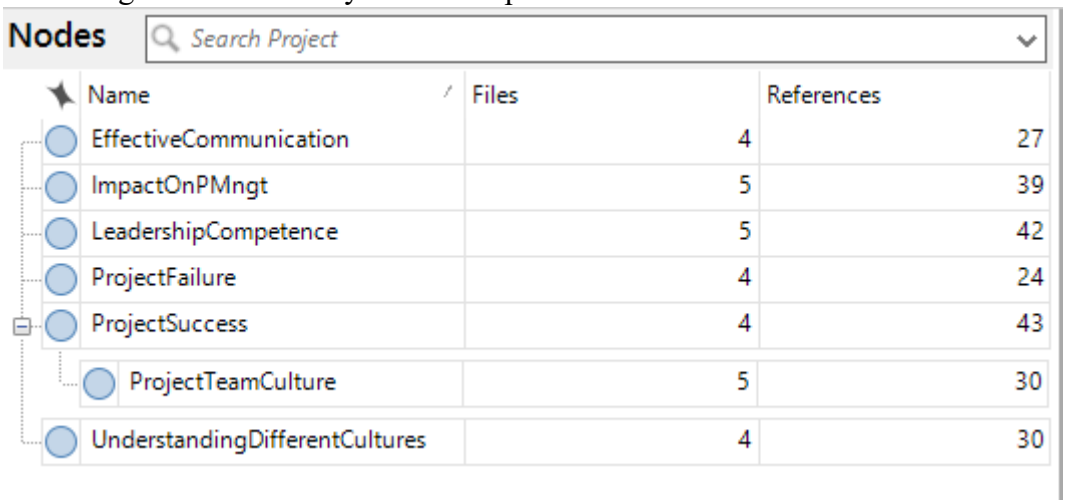


Figure 18: *Nvivo Main Nodes (Source: Author)*

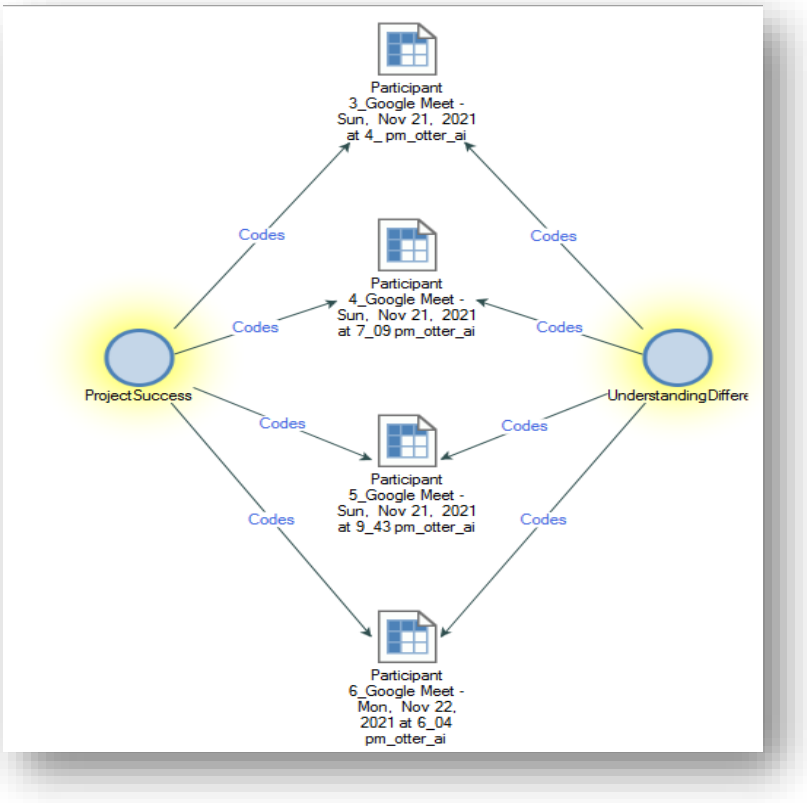


Figure 19: *Correlation of Codes and Main Emerging Themes from Interviews (Source: Author)*

(Note: The succeeding figures present portion of the transcripts derived from the interviews with project manager respondents. A computer software, Otter.AI, was used to artificially transcribe such interviews and thus, certain words below may indicate spelling/word differences. This is notwithstanding that the overall thoughts of the interviewees were accurately captured from the actual conversations.)

ii) The above figure shows how participants, prior to engaging within IT/Finance projects, have assessed their individual readiness levels on cultural awareness for project success. Such projects consisted of other team members from different cultures, as per analysis of (Participant 3, Participant 4, Participant 5, Participant 6) responses.

iii) The concept of awareness relates to (0.25% coverage) – see figure below:

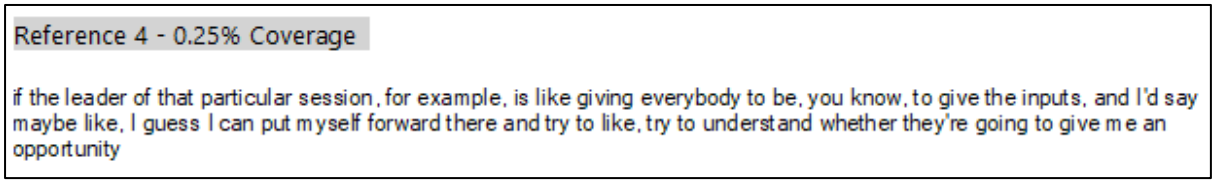


Figure 20: *Excerpt from transcript*

CQ has helped team members to prepare before meetings, (**0.22% coverage**) as expressed by Participant 3, who stated that they wanted to be prepared based on the meeting agenda, communicate objectives in achieving project goals, to acquaint themselves with project team members.

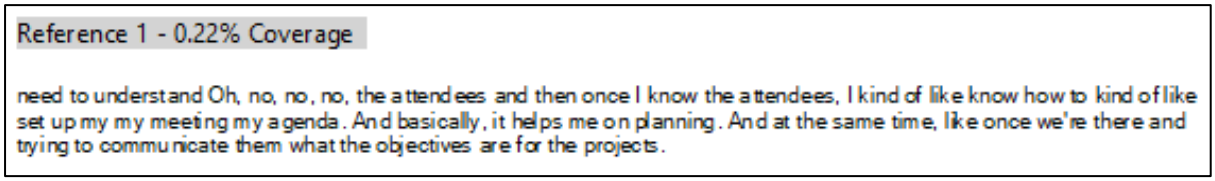


Figure 21: *Excerpt from transcript*

Respondents emphasized how they use mutual recognition - the reciprocity of acceptance of themselves towards team members from other cultures, by offering them chance to share inputs, thereby meeting certain objectives of the project meeting.

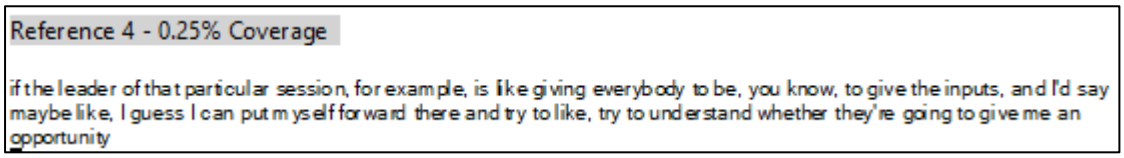


Figure 22: *Excerpt from transcript*

Respondent 4 stated that awareness about culture of team members within IT/Finance projects gives them the opportunity to provide inputs and clues on dealing with project fundamentals, including the project uncertainties leading to a successful collaboration in

challenging situations. This implies the criticality of understanding CQ of team members and their approach in resolving conflicts within IT/Finance projects.

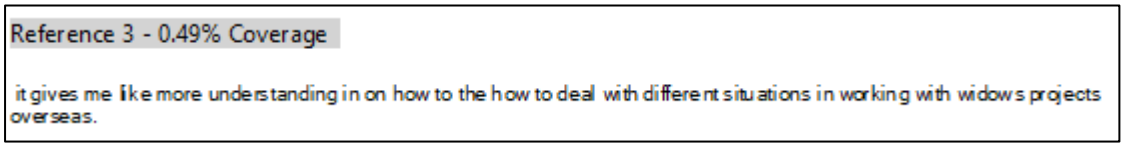


Figure 23: *Excerpt from transcript*

The respondent stated that after a successful project management experience within IT/Finance, the experience about CQ creates working knowledge and individual skill sets when applied prospectively in different teams across geographies like EMEA region, to leverage in achieving better outcomes in interactions.

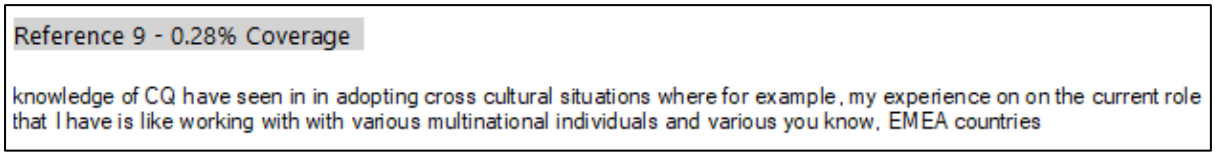


Figure 24: *Excerpt from transcript*

iv) Majority of the respondents 'link CQ in determining the project success or project failure, apart from the technical, functional and communication issues being unresolved. Responses show that 'culture is the factor, that is linked to how respondents communicate, agreeing commonalities in project management principles, with team members of different countries. The employees build their initial level awareness about multiple cultures in team-based work environment within IT/Finance projects, which is defined as success or failure. It implies that often the transactional nature of IT/Finance project details and its expansive technicalities, require participants to know CQ, to deal and communicate as evident from comparison of codes below. Respondent 3 stated that CQ is linked to overcoming challenges, finding mutually agreeable ways, and adopting project management methods, while eliminating uncertainties.

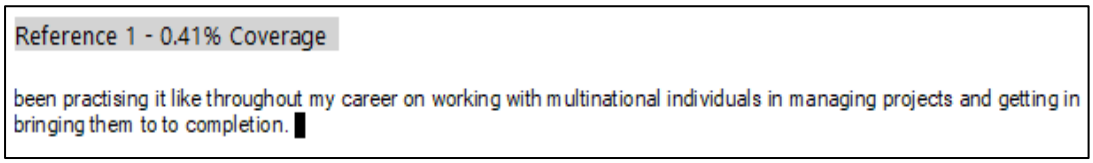


Figure 25: *Excerpt from transcript*

Communication of project objectives, where participants try to understand the level of involvement by team members by understanding project objectives (0.23% coverage), is mentioned as a key to project success.

Reference 3 - 0.23% Coverage

trying to communicate them what the objectives are for the projects. It has to be on, like the delivery of those projects. And sometimes, it also like helps me that sometimes like there are people or like there are attendees, where I know that they for for certain projects that I manage for I need everybody's involvement.

Figure 26: *Excerpt from transcript*

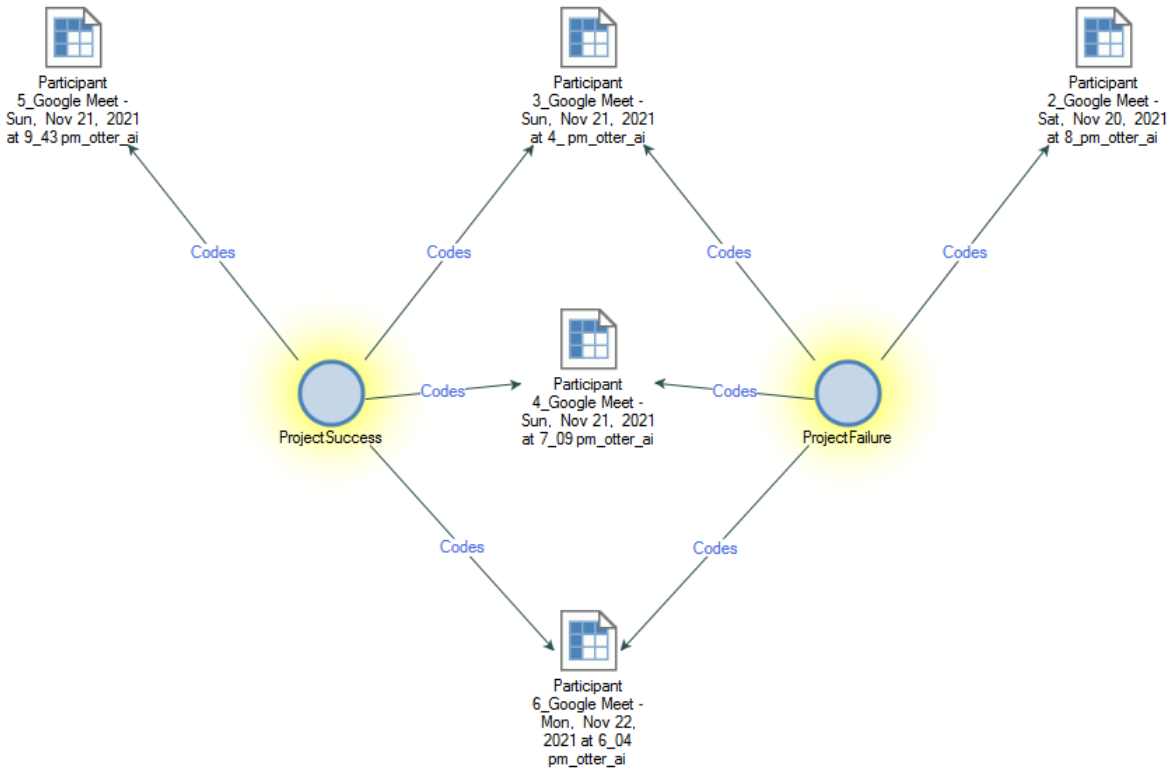


Figure 27: *Correlation of Codes, Themes to Interviews*

v) When asked about two-factor correlations of 'leadership competence' on 'Project management outcomes', majority of the respondents agreed strongly on this dimension. This dataset output implies the role of norms, guidance within IT/Finance projects, where 'know team members', 'know team members across globe' as an intention while 'project that I manage need everybody's involvement' to show holistic approach to team being led 'by example of leader' (0.34% coverage) with 'CQ ability' (0.34%) as stated by respondent 3.

Reference 2 - 0.34% Coverage

because a leader always leads by example. So when people that follow a leader, which has that CQ ability, eventually he passes it on? Because, you know, we always aim even as children, we always learn by example,

Figure 28: *Excerpt from transcript*

This implies the team members in project management, irrespective of their cultural background, are influenced by the leadership culture within the team. CQ of the leader at one-to-one level, shows how separate sessions (0.25% coverage) with team members, helps the individuals enhance belief, guiding team performance and drive team culture. Respondents used EQ in tandem with CQ to overcome challenges and build team rapport within IT/Finance project teams (around 0.15%coverage).

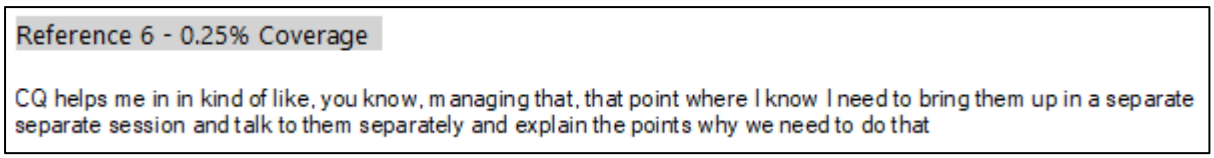


Figure 29: *Excerpt from transcript*

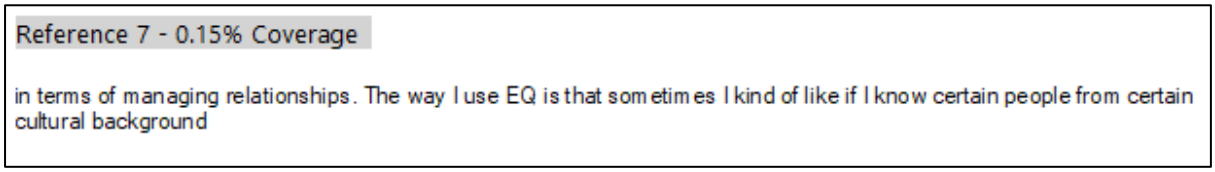


Figure 30: *Excerpt from transcript*

On the leadership aspect, respondents agreed (1.37% coverage) that CQ helped project managers influence team members in their planning and delivery, thereby addressing challenges within the interdisciplinary IT/Finance projects.

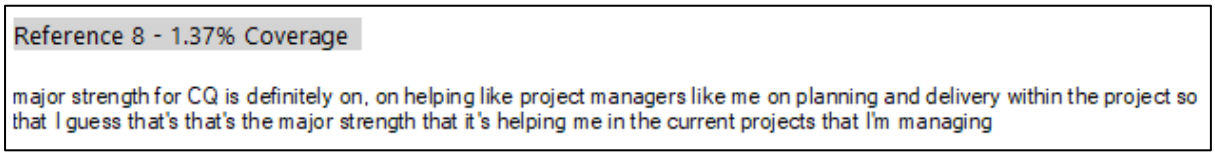


Figure 31: *Excerpt from transcript*

The leadership's role during strategy stage is not only linked to maintain project goals across multiple cross-cultural teams, but also in the team members' onboarding. This is echoed by respondent 4, as CQ orientation by leadership style and team culture helps the team member to manage cultural differences with while working on projects overseas (with 0.41% coverage).

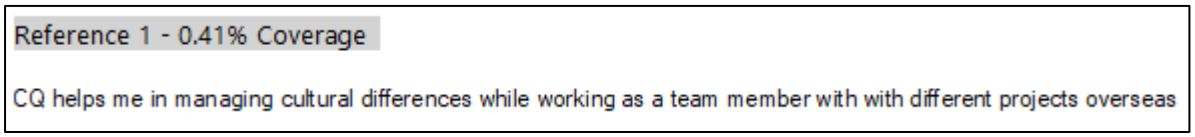


Figure 32: *Excerpt from transcript*

This further presents how CQ assists the team leaders and members in resolving differences.

vi) Team culture and leadership competence

Respondent 2 stated that communicating the objectives at the initial project stage forms a key relationship on how the leadership guidance impacts the project and defines the involvement across teams.

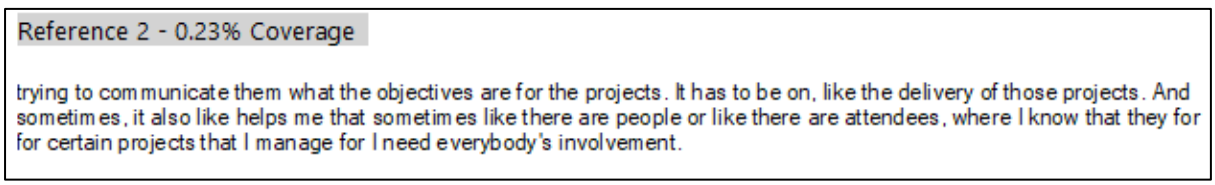


Figure 33: *Excerpt from transcript*

The team members stated that developing CQ or awareness level about cross-cultural teams within project management. Moreover, the team members expressed those new learnings have helped encourage end-to-end communications. This response implied that CQ assists to convey the information as a project team member.

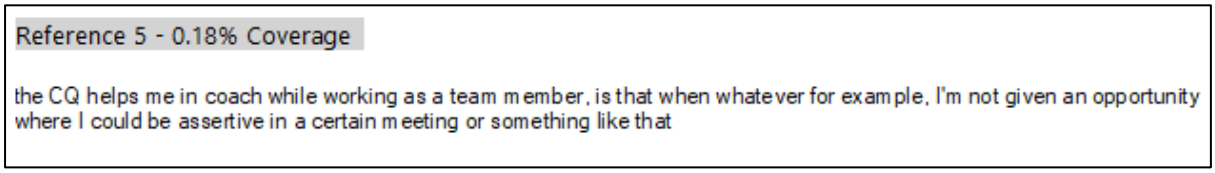


Figure 34: *Excerpt from transcript*

Response shows that developing CQ assists to understand overall culture within the team, which has helped to understand the CQ dimensions in multiple projects, and in the long term is helping in leadership guidance.

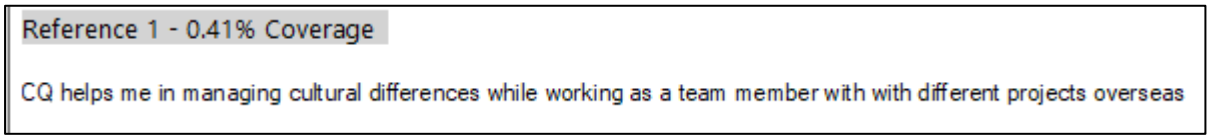


Figure 35: *Excerpt from transcript*

CQ. both as a knowledge and competency, assists in understanding cultural differences and among team members. CQ helps individuals to adopt strategies to decipher potential culture-centric approaches. This is a differential approach, allowing to adopt the unique experience through inputs, and by further deploying cultural competencies. It is also a strategic approach used to solve a business challenge while supporting teams through collaborative, and joint approach. Thus, setting paths for positive IT/Finance project management outcomes, by achieving common goals.

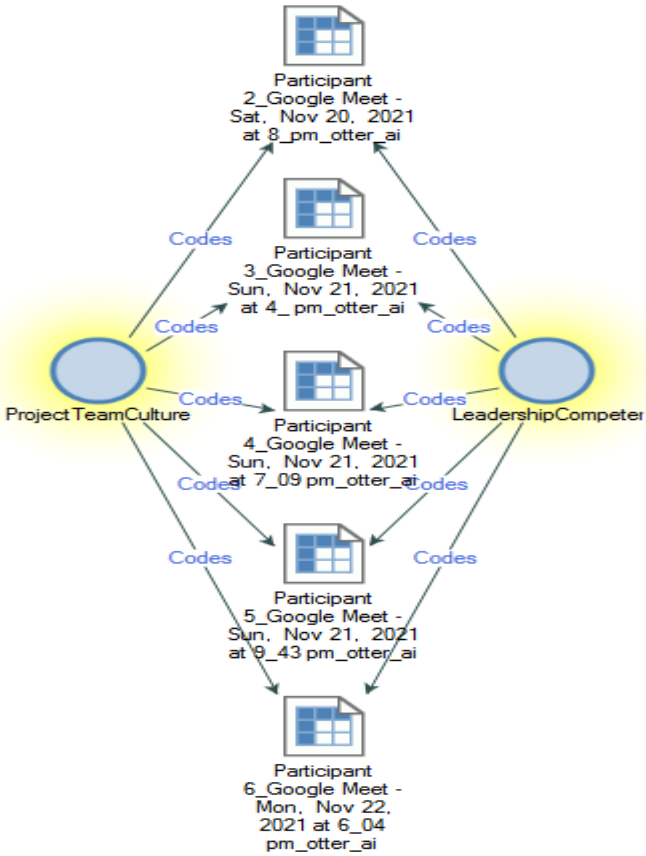


Figure 36: *How CQ aids in Project team culture (Theme 3) and leadership competence (Theme 4)*

The above relationship reflects the customer centricity being a common purpose, while leadership focusses on team members using team culture within work processes to extend to the externalities of the IT/Finance projects.

vii) The correlation between **'effective communication' and 'impact on the project'**

Reference 1 - 1.04% Coverage

across different offices in different countries, across geographies. I work in in Asia, I work in Europe, even work in the US. And most of the team members that I dealt with in the past hour from different work from different countries with different cultures

Figure 37: *Excerpt from transcript*

Respondents have expressed the importance of effective communication in order to establish cross-cultural team communication, which may vary from one to multiple teams across the IT/Finance projects. This has impacted the exchange of information on how team members use their domain knowledge, then scale it up to understand team dynamics and culture, then to deploy team culture to understand the involvement and commitment to those IT/Finance project approaches.

Reference 3 - 0.49% Coverage

it gives me like more understanding in on how to the how to deal with different situations in working with widows projects overseas.

Figure 38: *Excerpt from transcript*

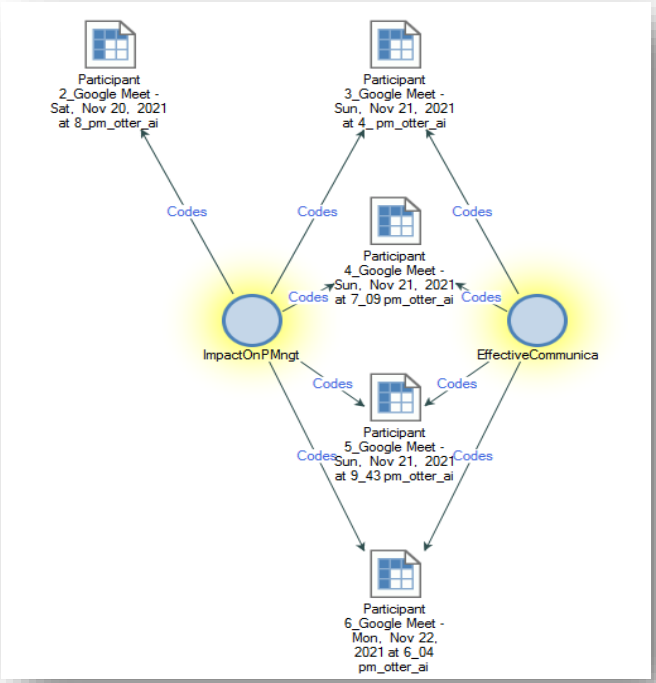


Figure 39: *Correlation between Impact on project management (Theme 5) and Effective communication (Theme 1)*

Appendix 6 Coding of quantitative (Contextual) and qualitative questions

This Appendix 6 should be read in conjunction with Chapter 4.4.1 Coding of quantitative (Contextual) and qualitative questions, and Chapter 4.5 Linkage of research objectives, hypotheses, research questions with survey and interview questions (Table 10).

The following section is quantitative question coding. This coding of quantitative survey questions with the rating responses - **SA (strongly agree), A (agree), N (neutral), D (disagree), SD (strongly disagree), has the following rating – SA (5), A (4), N (3), D (2), SD (1)**

Table 27: *Quantitative questions coding (Source: Author)*

Metacognitive

	The extent of my agreeability or disagreeability with the following statements:
N1	I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds in IT/Finance Projects
N2	I adjust my own cultural knowledge as I interact with IT/Finance team members from a different culture that is unfamiliar to me.
N3	I am conscious about the cultural knowledge which I apply to cross-cultural interactions.
N4	I check the accuracy of my cultural knowledge as I interact with individuals from different cultures.

Cognitive

	The extent of my agreeability or disagreeability with the following statements:
N5	I know the rules (e.g., vocabulary, grammar) of other languages
N6	I know the cultural values of other cultures
N7	I know the rules for expressing non-verbal behaviors in other cultures
N8	As a team member in IT/Finance projects we are wary about expressions before other culture members

Motivational

	The extent of my agreeability or disagreeability with the- following statements:
N9	I interact with people from different cultures as a part of IT/ Finance job
N10	I am confident that I can socialize with people of multiple cultures that is unfamiliar to me.
N11	I am sure I can deal with the stresses of adjusting to a culture that is new to me
N12	I am confident that I can get accustomed to conditions in a multicultural IT/Finance team environment
N13	I take initiative to resolve culture-based misunderstandings in our IT/Finance project team

Behavioural

	The extent of my agreeability or disagreeability with the following statements:
N14	I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction in IT/Finance project requires it.
N15	I use pause and silence differently to suit different cross-cultural Situations in IT/Finance project team meetings.
N16	I vary the rate of my speaking when a cross-cultural situation in IT/Finance project requires it.
N17	I change my non-verbal behavior when a cross-cultural situation in IT/Finance project requires it.
N18	I alter my facial expressions when a cross-cultural interaction in IT/Finance project requires it.

Coding of interview questions

Table 28: *Qualitative questions coding (Source Author)*

Codes and the Interview questions
I1) How far your knowledge about CQ helpful in managing the cultural differences? Please elaborate **I2)** How does CQ help you to manage cultural differences while working as a team member for IT/Finance projects overseas? Please elaborate **I 3)** How does CQ help in cross cultural adaptation? Does in the ease the process of communication? Please elaborate **I 4)** How did CQ help you to manage relationship with different stakeholders in IT/Finance projects? How does CQ contribute to the efficiency and success of IT/Finance projects? Please elaborate
I 5) What has been the major strengths of CQ for successful IT/Finance project outcomes and performances? Please elaborate **I 6)** Do you perceive that impact of CQ could be negative for IT/Finance projects? If so what where (or what could be) the major weaknesses and downside of CQ for IT/Finance projects in any given situation? Please elaborate **I 7)** Can CQ be unfavorable for IT/Finance projects? How and in which project areas? Please elaborate
I 8) What challenges did you face, or your IT/Finance project team faced in managing projects in a cross-cultural setting despite familiarity with CQ and its dimensions?

The coding for survey questionnaire and the interview questions shown above were discussed further in Chapter 4, sub-section 4.6 to address the relevant research objectives.

Appendix 7 Interview Consent Form

I_____ voluntarily agree to take part in this research study.

I understand that I am not obliged to take part in this study and that my participation in the study is entirely voluntary.

I understand that I am free to withdraw from the study at any time or refuse to answer any question without the need to provide reason and without fear of negative consequences.

I understand that digital recordings will be stored under password protection for some time until the approval of their dissertation by the examination board, at which point recordings will be permanently deleted.

I understand that my data will undergo de-identification during transcription and will be rendered anonymous for retention and for the purpose of subsequent publications.

I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.

I understand that I will not benefit directly from participating in this research.

I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

I understand that signed consent forms will be retained for some time until the exam board confirms the results of their dissertation.

I confirm that I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study with satisfactory answers provided.

I confirm that I have read and fully understood the information provided and statements above.

Name & Signature of research participant Date

_____ _____

Name & Signature of researcher Date

Appendix 8 Information Sheet for Participants (Interviews)

Research project title: Cultural Quotient as a Critical Success Factor in Project Management – A study of IT/Finance Multinational Organisations in Ireland.

Student Researcher: Michael Moskwa (10582709@mydbs.ie)

Research Supervisor: Linda Moran (Linda.Moran@dbs.ie)

About the Project

Introduction*:* I am a Masters student at Dublin Business School, undertaking an MBA Project Management programme. I am carrying out my thesis project under the direct supervision of Linda Moran on the research topic of Cultural Quotient as a Critical Success Factor in Project Management – A study of IT/Finance Multinational Organisations in Ireland.

Aims: The aim of the project is to gather data from individuals working as project managers, project team members within IT/Finance projects, employed within Multinational Organisations in Ireland, to evaluate the significance of cultural quotient (CQ) as a CSF in project management. The secondary aim is to examine the impact of cultural quotient in managing multinational projects in Ireland; and to evaluate whether CQ can be regarded as CSF while contributing to success or failure in managing projects in organisations.

Request/Invitation: I would like to invite you to take part in this study which will be conducted via a recorded interview. In this interview you will be asked to answer a set of around 10 questions related to your experience as a Project Team Leader/Project Manager/Assistant Project Manager while working on projects in multicultural teams, and how CQ contributes to the overall performance of the projects.

What would be required? As a participant in the study, you would be required to answer a set of prescribed interview questions. In terms of time required and your commitment, the study will typically take around 30 minutes and will be one time only. I may have to reach out to you via email to clarify certain points which may not be clear during the analysis of the interview. I will use the data to formulate my final analysis and to form my conclusion.

Data Protection

For Interviews/Focus Groups: Interviews will be recorded for the sole purpose of facilitating later transcription of the data. Precise transcripts are important in research to ensure that data is recorded accurately, to allow the interviewer to be more present in the conversation and, importantly, to support greater accountability and scientific integrity. During the transcription phase your data will undergo de-identification involving the removal of all personally identifying information thereby rendering them anonymous for retention. The original recordings will be digitized and kept under password protection. Upon graduation all recordings will be permanently deleted. Your data will be used strictly for academic purposes and will not be shared with used or shared with anyone for commercial purposes. The researcher will adhere to strict ethical guidelines and principles and will not anecdotally share any personally identifying information about you with anyone.

What are the risks and benefits of taking part in this study?

In addition to providing much appreciated assistance to the student researcher, the main benefit of taking part in this study will be your contribution to academic research, which aims to expand knowledge and generate new insights. There will be no risks posed to you as a participant in this study, either physical or psychological, beyond that which is normally expected of day-to-day activities.

If you are interested in taking part…

If you are interested in taking part please review the information provided in the consent form and if you are happy to proceed with the study then please indicate your willingness to take part by ticking the appropriate box / signing your name where appropriate.

You are under no obligation to take part in this study or to provide a reason if you decide not to take part. You may choose not to take part without fear of penalty. If you agree to take part you have the right to cease participation and withdraw your data at any time for any reason without fear of penalty. The data will not be used by any member of the project team for commercial purposes.

Please do not hesitate to contact me directly about any questions you may have in relation to this interview. You may contact me at 10582709@mydbs.ie or my supervisor Dr. Linda Moran at Linda.Moran@dbs.ie

Thank you for participating.

Michael Moskwa

Appendix 9 Interview Protocol

Interview Protocol

My name is Michael Moskwa, and I am a student of the MBA Project Management programme student in Dublin Business School. This interview is carried out to help me gather data for my dissertation research project that is entitled: "Significance of Cultural Quotient as a Critical Success Factor in Projects within IT/Finance Multinational Organisations in Ireland.''

How to start the interview?

- Inform participants of the purpose of this research, their rights and confidentiality (refer to the information sheet in appendix A) Ask the interviewee basic background information about her/himself (Tell me about yourself, what is your name, what company or industry do you work for, how long have you been working there, what is the location of the company etc?) Few open-ended questions to start the interview and to collect important background data.

Things to remember

- Use open posture, make appropriate eye contact, take notes, stay relaxed, listen carefully, do not interrupt!
- Encourage the participant by using expressions throughout the interview; for example, 'Yes, yes', 'I see', or 'Uh huh', (not too often, remember not to interrupt)
- nod of the head, eyebrows raising, facial expressions are also important, show the interviewee that I am listening

Examples of follow up questions:

- 'How did you feel about this?'
- 'Was this what you expected?'
- 'Would you tell me more about that?'

Silences

Do not panic, the participant may need few moments to gather thoughts and think about the question. If I notice that he/she is getting nervous, gently move onto an easier type of question. 3-5 minutes per question should be enough time to give an answer.

At the end of the interview, ask the interviewee if there is anything else, they would like to add or say.

Thank you for your time. I really appreciate it.

Appendix 10 Confidentiality Agreement

Confidentiality Agreement

This agreement is between:

Michael Moskwa

and

Respondent

for

Research Project titled: Significance of Cultural Quotient (CQ) as a Critical Success Factor in Projects within Multinational Organisations in Ireland

I agree to:

1. keep all the research information shared with me confidentially. I will not discuss nor share the research information with anyone other than with Dublin Business School (DBS).

2. keep all research information secure while it is in my possession.

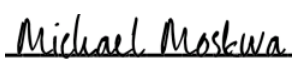
3. destroy or return all research information to DBS when I have completed the research tasks or upon request, whichever is earlier.

4. destroy all research information regarding this research project that is not returnable to the DBS or Research Supervisors(s) after consulting with the Research Supervisor(s).

5. comply with the instructions of the Research Supervisor(s) about requirements to physically and/or electronically secure records (including password protection, file/folder encryption, and/or use of secure electronic transfer of records through file sharing, use of virtual private networks, etc.).

6. not allow any personally identifiable information to which I have access to be accessible from outside Ireland (unless specifically instructed otherwise in writing by the Researcher(s)).

Research student:



Michael Moskwa

26/07/2021

Appendix 11 Progress Monitoring Report

Dissertation Meeting/Progress Monitoring Report

Name of Learner: Michael Moskwa Learner No.: 10582709

Name of Supervisor: Linda Moran Meeting No.: 1-4

Dates of meeting:

- Meeting number 1: 18th October 2021
- Meeting number 2: 8th November 2021
- Meeting number 3: 29th November 2021 (postponed from 22nd November 2021)
- Meeting number 4: 13th December 2021 (Final call meeting)

Location of meeting: Online via Zoom

Review/Comment on Progress Made (since last meeting):

- Discussions and feedbacks/comments to my draft chapters submitted were discussed during such meetings.

Topics/Issues discussed/addressed at meeting: Action Agreed/Progress expected before next meeting:

- Meeting number 1: 18th October 2021:
    - prepare questions for Literature Review
    - Progress expected before next meeting:
        i. "draft chapter" of Literature Review submission by email by 1st November 2021

- Meeting number 2: 8th November 2021:
    - prepare questions for Research Methodology and Methods
    - Progress expected before next meeting:
        i. "draft chapter" of Research Methodology and Methods AND PROPOSED QUESTIONAIRE / INTERVIEW QUESTIONS submission by email by 15th November 2021

- Meeting number 3: 29th November 2021 (postponed from 22nd November 2021):
    - prepare questions for Data Analysis
    - Progress expected before next meeting:
        i. "draft chapter" of Data Analysis/Findings submission from 6th December 2021

- Meeting number 4: 13th December 2021 (Final call meeting):
    - Any final questions you may have

- Progress expected after final meeting:

Chapter	Dates
Discussion /Conclusion / Recommendations	13th December 2021
Reflection/ Bibliography/ Appendices/ Title Page/ Declaration/ Abstract / Content Page/ List of Tables/ Figures/ Introduction	20th December 2021
Final dissertation review and poster to submit online	10th January 2022

Overall Summary/Conclusion of Meeting:

- I have attended all meetings listed above and discussed with my supervisor professor Linda Moran.
- Discussions and feedbacks/comments to my draft chapters submitted were discussed during such meetings.

Date of next meeting: N/a

Signed: **Linda Moran** - Supervisor

Signed: **Michael Moskwa** – Learner

N.B. Complete and keep for records of each learner meeting (Copy for supervisor & learner).

Dissertation Deadline

Assignment	Weighting	Deadline
First meeting presentation	10%	Within 2 weeks approximately after start date, at a time agreed with supervisor
Poster	10%	10th January 2022
Dissertation	80%	10th January 2022

Dissertation "DRAFT CHAPTER" Deadlines and Zoom Meeting Dates

- **You are expected to follow the dates set out below for both chapter deadlines and supervisor meetings.**
- **Zoom meetings will be held at the same time from the first email communication. This date/time cannot be changed so please ensure you available.**
- **Please send each "draft chapter" for my review (ones marked in RED) with some general feedback and direction provided.**
- **Please ensure that you complete "Dissertation Meeting/Progress Monitoring Report " template AFTER EACH MEETING located in the handbook for your own records.**

Schedule	Dates
***First Meeting Presentation Zoom -prepare questions for Literature Review**	18th October 2021
Literature Review	1st November 2021-**"draft chapter" submission by email**
***Second Meeting Zoom- prepare questions for Research Methodology and Methods**	8th November 2021
Research Methodology and Methods AND PROPOSED QUESTIONAIRE / INTERVIEW QUESTIONS etc	15th November 2021-**"draft chapter" AND QUESTIONAIRE / INTERVIEW QUESTIONS submission by email**
***Third Meeting Zoom - prepare questions for Data Analysis**	22nd November 2021
Data Analysis/Findings	6th December 2021-**"draft chapter" submission by email.**
***Fourth Final Meeting Zoom – Any final questions you may have**	13th December 2021
Discussion /Conclusion / Recommendations	13th December 2021
Reflection/ Bibliography/ Appendices/ Title Page/ Declaration/ Abstract / Content Page/ List of Tables/ Figures/ Introduction	20th December 2021
Final dissertation review and poster to submit online	10th January 2022

Re: Dissertation (MBA PM) - Literature Review - draft chapter

Linda Moran <linda.moran@dbs.ie>

Sat 06/11/2021 19:54

To: Michael Moskwa <10582709@mydbs.ie>

1 attachments (18 KB)

Michael Moskwa 10582709 (Marking Presentation).docx;

Hi Michael
First Meeting feedback for your review.
Best regards
Linda

On Sat, Nov 6, 2021 at 7:01 PM Linda Moran <linda.moran@dbs.ie> wrote:

> Hi Michael,
>
> Thank you for sending me a draft copy of your Literature Review.
>
> After reviewing the document, I am providing generic feedback in the form of a GUIDE to reconsider ONLY when you start editing your thesis towards the end of the dissertation process.
>
> A. Introduction : A literature review surveys scholarly articles, books and other sources (e.g. dissertations, conference proceedings) relevant to a particular issue, area of research, or theory, providing a description, summary, and critical evaluation of each work. The purpose is to offer an overview of significant literature published on a topic.
>
> B. Components : Similar to primary research, development of the literature review considering four stages:
>
> - Problem formulation—what are its component issues?
> - Literature search—finding materials relevant to the subject
> - Data evaluation—determining which literature makes a **significant contribution** to the understanding of the topic
> - Analysis and interpretation—discussing the findings and conclusions of **pertinent literature**
>
> Please ensure your Literature review comprise of the following elements incorporating depth analysis:

> - An overview of the subject, issue or theory under consideration, along with the objectives of the literature review
> - Division of works under review into categories (e.g. those in support of a particular position, those against, and those offering alternative theses entirely)
> - Explanation of how each work is similar to and how it varies from the others
> - Conclusions as to which pieces are best considered in their argument, are most convincing of their opinions, and make the greatest contribution to the understanding and development of their area of research
>
> In assessing each piece, consideration should be given to:
>
> - Provenance—What are the author's credentials? Are the author's arguments supported by evidence (e.g. primary historical material, case studies, narratives, statistics, recent scientific findings)?
> - Objectivity—Is the author's perspective even-handed or prejudicial? Is contrary data considered or is certain pertinent information ignored to prove the author's point?
> - Persuasiveness—Which of the author's theses are most/least convincing?
> - Value—Are the author's arguments and conclusions convincing? Does the work ultimately contribute in any significant way to an understanding of the subject?
>
> C. Definition and Purpose: To be very clear in your workings, a literature review purpose is to:
> - Place each work in the context of its contribution to the understanding of the subject
> - Describe the relationship of each work to the others under consideration
> - Identify new ways to interpret, and shed light on any gaps in, previous research
> - Resolve conflicts amongst seemingly contradictory previous studies
> - Identify areas of prior scholarship to prevent duplication of effort
> - Point the way forward for further research
> - Place one's original work in the context of existing literature
>
> D. Argumentation:
> Arguments are never just making claims, especially claims that either simply repeat or contradict the claims of the author you're writing about. Instead, give clear reasons to support your position; build a case for your reader. Make sure that your reasons really do support or lead to the conclusion you come to.

· Remember that you're not simply giving me an argument in support of your thesis; you're also dealing with the argument of author. *You must actually present the authors argument in favor of the thesis and then address the argument.*
· Improving by narrowing in on one specific part of the authors argument—for example, you might highlight and attack or defend a key area. General criticisms may be given but struggle (especially given constraints) with specific aspects of an argument.
· Criticism of approaches is giving a paragraph by paragraph regurgitation of the text. This strategy, besides being stylistically awkward, hints to the examiner that you're really not sure what the argument is, or which parts are more important, and so you're just going to try and say everything exactly how the author did. Cut out the fluff, unimportant illustrations and say what needs to be said to inform the examiner of your argument.

E. Citations:

Never let quotes stand on their own—explain them. There is one skill for picking out relevant quotes from a text, and another skill involved in understanding what it says.

Please take your time to consider all of the above. I recommend you incorporate this feedback into your workings which will further enhance the quality of your overall Literature Review.

Keep up the work and stay focused on what you are setting out to achieve in each chapter.

Kind regards
Linda

On Wed, Nov 3, 2021 at 7:24 PM Linda Moran <linda.moran@dbs.ie> wrote:

> Received with many thanks Michael,
> I will provide you with some guidance on the content of your chapter in due course. As one of your examiners, specific feedback cannot be given until the final submission so hope you understand.
> Keep pushing forward to focus now on the methodology chapter.
> See you online on the 8th Nov and suggest that you have some questions prepared in advance as this is an opportunity.
> Kind regards
> Linda
>
> On Mon, Nov 1, 2021 at 11:33 PM Michael Moskwa <10582709@mydbs.ie> wrote:
>
> > Good evening Professor Linda,
> >
> > I hope this email finds you well.
> >
> > Please find attached draft chapter of my Literature Review.
> >
> > Looking forward to our second meeting on zoom next week.

> > Thank you.
> >
> > Best regards,
> > Michael Moskwa
> >
> > ---
> >
> > **From:** Linda Moran <linda.moran@dbs.ie>
> > **Sent:** Monday 18 October 2021 11:09
> > **To:** Michael Moskwa <10582709@mydbs.ie>
> > **Subject:** Re: Supervisor meeting, dissertation (MBA PM)
> >
> > Received with many thanks Michael
> > Linda
> >
> > On Sat, Oct 16, 2021 at 5:11 PM Michael Moskwa <10582709@mydbs.ie> wrote:
> >
> > > Good afternoon Professor Linda,
> > >
> > > I hope this email finds you well.
> > >
> > > Please find attached First Meeting proposal document ahead of our meeting on Monday. I have uploaded the document to Moodle as well.
> > >
> > > I'm looking forward to meeting you via Zoom.
> > >
> > > Have a good weekend.
> > >
> > > Best regards,
> > > Michael Moskwa
> > >
> > > ---
> > >
> > > **From:** Linda Moran <linda.moran@dbs.ie>
> > > **Sent:** Sunday 10 October 2021 11:20
> > > **To:** Michael Moskwa <10582709@mydbs.ie>
> > > **Subject:** Re: Supervisor meeting, dissertation (MBA PM)

Documents received with thanks Michael
Linda

On Fri, Oct 8, 2021 at 5:08 PM Michael Moskwa <10582709@mydbs.ie> wrote:

Good Afternoon Professor Linda,

Thank you so much for your email. I'm still having a fever.
Please find attached dissertation proposal along with the feedback as requested.
I'm also working on 10% dissertation presentation document, which I will share as a copy by the 17th October and upload to moodle in advance of our meeting on Monday the 18th October.

Thanks and have a nice weekend ahead.

Kind regards,
Michael Moskwa

From: Linda Moran <linda.moran@dbs.ie>
Sent: Tuesday 5 October 2021 19:21
To: Michael Moskwa <10582709@mydbs.ie>
Subject: Re: Supervisor meeting, dissertation (MBA PM)

Hi Michael

I trust you are well.
Yes I have been assigned as your dissertation supervisor and will be working with you over the coming weeks.

Please can send me a **copy of your dissertation proposal** to include your **feedback** too.
In the meantime please carefully read and implement your proposal feedback and **all aspects** of the dissertation handbook in preparing for your **10% dissertation presentation document** which will take place on the **18h October 2021 @ 9AM- 9.30AM.**

Please see below my zoom link for your first meeting presentation - https://dbs.zoom.us/j/4632673372

For the FIRST MEETING proposal document, please send me a copy by the 17th October and UPLOAD to moodle in **advance of our meeting.**
Looking forward to working with you.

Kind regards
Prof Linda

On Tue, Oct 5, 2021 at 1:32 PM Michael Moskwa <10582709@mydbs.ie> wrote:

Dear Linda,

My name is Michael Moskwa and I am currently undergoing the project management stream of DBS's MBA programme.
I have been informed by academic operations that I have been allocated to be supervised by you for my dissertation, and have been advised to get in contact with you as soon as possible.

At present, my chosen dissertation title is 'Significance of Cultural Quotient as a Critical Success Factor in Projects within IT/Finance Multinational Organisations in Ireland'.

I am looking forward to work with you during the prescribed timeframe.

Is there any particular day or time that suit you for our initial meeting over the next couple of weeks?
I am currently working remotely full time and self-isolating, hence a zoom call would be a little easier to facilitate this meeting.

Thank you.

Kind regards,
Michael Moskwa

--

| **Linda Moran** |

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Methodology chapter

Linda Moran <linda.moran@dbs.ie>

Mon 15/11/2021 18:03

To: Michael Moskwa <10582709@mydbs.ie>

Hi Michael,

Thank you for sending me your draft Methodology chapter. I would like to provide you with some general feedback for consideration to include in this chapter.

The methodology chapter should include discussions of the following areas so please cross reference and ensure that all areas have been addressed with great in depth critique and analysis:

1. The research design, i.e. the plan for conducting and organising the research.
2. Justification for the use of the methods selected.
3. Who participated and how they were selected (sample and sampling method).
4. The ethical considerations arising from the study and how these were dealt with.
5. Details of what data were collected and how. Deciding on your methodology is fundamental to your dissertation, as your primary research and how you approach it, will determine the quality of your research findings.
6. How data were processed, analysed and managed.
7. How the reliability and validity of the research was ensured, particularly in the case of quantitative research.
8. Generalizability/Transferability of the findings.
9. Limitations.

Other areas to consider in this chapter:

Please ensure that the introductory paragraph describes both the design of the study and the organisation of the chapter, it is important to remind the reader of the research question and research objectives here also.

The paragraphs that follow should provide an explanation of the methods you will utilise to gather the data necessary to address the research question. In addition to describing these methods, you also need to provide justification for selecting this method of research (why you felt this method or these methods in particular were most suitable).

When providing justification for the method of research you are using, you might also provide an explanation for deciding not to utilise certain commonly accepted research methods. Or, you might provide an explanation for purposely including or excluding certain groups from your research.

It is very important that you use `**'MORE" relevant literature** throughout the chapter to **support your decisions and justifications.**

You should also provide a discussion outlining the philosophical underpinning of the research.

Please ensure you take time to review my comments and make changes accordingly in your own time.

Keep up the work !

Best regards

Linda

| Linda Moran |

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Re: Dissertation (MBA PM) - Data Analysis/Findings - draft chapter & draft Dissertation Progress Monitoring Report

Linda Moran <linda.moran@dbs.ie>

Fri 17/12/2021 14:00

To: Michael Moskwa <10582709@mydbs.ie>

Hi Michael,

Thank you for sending your Data Analysis chapter.

I would like to provide you with some general comments for consideration to include in this chapter.

The Data Analysis chapter should include discussions of the following areas so please cross reference and ensure that all areas have been addressed with depth, critique and analysis.

"Data analysis summarizes a mass of information to answer the research questions, test the hypotheses, examine the foreshadowed problems, and explore the conjectures".

· As you are aware, the results are reported in the Data Analysis Chapter and then interpreted in Conclusions / Recommended Chapter. Note though that this is not possible for some modes of qualitative research, where analysis and interpretation are closely intertwined, but even then, the interpretation in the Data Analysis Chapter should be at a low level, with higher level, overall interpretations reserved for Conclusion / Recommended Chapter.
· The text should tell a story and teach the result in an order that will be intuitive, interesting, and easily understood by a reader not previously informed about the subject.
· The text should highlight and emphasize what is most important. It should present more briefly the less-important results.
· Deciding which results are most important should be based on consideration of:
(a) the conceptual framework that guided the study,
(b) the main questions, hypotheses, or conjectures of the research;
(c) the magnitude and statistical significance or cross-validation of results, although when results were strongly predicted and not found, that is also an important finding;
(d) the consistency of the results across multiple measures of a construct and across similar constructs; and
(e) the potential implications for theory, knowledge, practice, policy, and future research.
· Do **NOT** bury your reader in a flood of computer-generated statistics. That is likely to confuse them and make nothing memorable.
· Important results should generally be shown in a table, chart, or graph, and mentioned in the text.
· They may also be illustrated with an example or two.
· Less important results might be shown in a table, but not mentioned in the text, or presented briefly in the text and not shown in a table or graph.
· If there are less important results whose complex details may be of interest to a few people, put those results in an appendix and have the text briefly reference the appendix.
· Standardize key terminology in this chapter and throughout the dissertation.
· While the use of synonyms for key concepts and variables can minimize irritating repetition, it may also leave readers unsure whether the differing terms represent somewhat different things.
· Review the Data Analysis Chapter guidelines in the dissertation handbook. Keep a separate list of points that might be discussed in the Conclusion / Recommended Chapter.

Please ensure you take time to review some of the comments, cross check when reading your chapter and to make changes accordingly.

Keep up the work, you are nearly done !

All the best,

Linda

On Thu, Dec 16, 2021 at 3:52 PM Michael Moskwa <10582709@mydbs.ie> wrote:

> Good afternoon Professor Linda,
>
> Please find enclosed updated progress monitoring report following our meeting and feedback.
>
> I was wondering whether you may have any feedback in relation to your review of the draft 'Data Analysis/Findings' chapter?
>
> I understand that you may be sharing this in due course later this week.
>
> Please let me know in case I misunderstood the timing.
>
> Thanks again.
>
> Best regards,
> Michael

From: Linda Moran <linda.moran@dbs.ie>
Sent: Monday 13 December 2021 09:01
To: Michael Moskwa <10582709@mydbs.ie>
Subject: Re: Dissertation (MBA PM) - Data Analysis/Findings - draft chapter & draft Dissertation Progress Monitoring Report

Hi Michael
Thanks for sending me your draft data analysis chapter.
I will revert back to you later today.
In the meantime, I will discuss the progress monitoring report at our meeting.
You are nearly there !

Best regards
Linda

On Mon, Dec 13, 2021 at 12:20 AM Michael Moskwa <10582709@mydbs.ie> wrote:

> Good evening Professor Linda,
>
> I hope this email finds you well.
>
> Please find attached draft chapter of my Data Analysis/ Findings.
>
> I have enclosed as well the draft 'Progress Monitoring Report' for your review. I noticed the template per Dissertation Guidebook asks for signatures, would Docusign suffice?
>
> Happy to hear from you regarding your feedbacks and comments to the documents attached.
>
> Looking forward to our fourth meeting on zoom on 13th December.
>
> Thank you.
>
> Best regards,
> Michael Moskwa

--

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Final Dissertation Checks - 6 days to submission

Linda Moran <linda.moran@dbs.ie>

Tue 04/01/2022 13:16

To: Linda Moran <linda.moran@dbs.ie>

Dear student,

The final deadline of the 10th January 2022 is fast approaching for submission of **Dissertation and Poster.** I would like for you to take note of the following when submitting FINAL copies of your work.

Dissertation

The submitted dissertation will be assessed by two other internal examiners who will be appointed by the Postgraduate Business Dissertation Coordinator. If there are any unresolved differences between the two internal examiners in opinion on the matter relevant to the student's assessment, such differences shall be resolved by bringing in a third internal examiner. See Part III of the guide for the assessment sheet used to mark the dissertation.

- Ensure you include your word count (15,000 – 20,000 words in length)
- ************Electronic copies of your Dissertation and Poster MUST be sent DIRECT to your supervisor by email by the 10th January 2022 ********
- **Note also that Electronically upload your dissertation and poster on Moodle to the dissertation page.** Please log on to Moodle to **access support materials and information on the dissertation page.**
- The dissertation shall be written in good quality typescript. In the body of the dissertation, text should be double-spaced. Single spacing should only be used for Abstract, appendices, footnotes, and long quotations (40 words or more).
- The dissertation shall contain the following sections: Cover page, Table of contents, Acknowledgements, Abstract, Introduction, Method, Results, Discussion, References, and Appendices.
- Your primary research files should be uploaded to the relevant portal on the dissertation Moodle page e.g. qualitative interview transcripts or audio recordings, and quantitative data spreadsheet.
- Links to the library deposit agreement and e-dissertation submission forms can be found on the dissertation Moodle page. This addresses putting your dissertation on the DBS ESource repository.

Poster

The poster is a summary of all the sections from the dissertation and will be submitted using a Powerpoint slide (A Powerpoint slide poster is available on the Moodle page, which can be used as a starting template for the poster). See Part III of the guide for the assessment sheet used to mark the poster. Don't underestimate the time required to create your poster !

NOTE

1. Please refer to the **MARKING CRITERIA** document located on the moodle page which sets out the marks for each chapter. This will be used by your examiners when allocating your marks
2. Don't **UNDERESTIMATE t**he timeframe left **(6days) t**o complete this work. Aim to have this completed as early as possible to give you time to **RE READ** the document **ONE LAST TIME.**
3. **Ensure you include a document of your supervisor meetings dates in appendices**
4. **Take ONE last look at the dissertation moodle page to ensure you have included everything.**

Keep cool and focused as you are nearly there!

Best wishes
Prof Linda

| Linda Moran |

| Business Lecturer |

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Appendix 12 Gantt Chart: Research Timeline

§	
Student ID	10582709 (Michael Moskwa)
l Supervisor	Linda Moran
Proposed Thesis Title	Cultural Quotient as a Critical Success Factor in Project Management: A Research within IT/Finance Multinational Companies in Ireland
Current as at	09/01/2022

#		Project Timeline											
		25th Oct	1st Nov	8th Nov	15th Nov	22nd Nov	29th Nov	6th Dec	13th Dec	20th Dec	27th Dec	3rd Jan	10th Jan
		Wk1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8	Wk9	Wk10	Wk11	Wk12
01	**Milestones Key (refer to the actual dates of submission as listed below)**												
	First Meeting / Form Submission	1											
	Literature Review Draft Submission		2										
	Research Methodology and Methods Draft Submission				3								
	Data Analysis / Findings Draft Submission								4				
	Final Thesis, Poster, Supporting Files Submission												6
02	**Research proposal and RM lecturer feedback emailed to supervisor**	5											
03	**Literature review**												
04	**Develop/Source Measures for surveys**												
05	**Develop Recruitment Materials**												
06	**Preparation of surveys/interview schedules**												
07	**Start Recruitment process**												
08	**Methodology: Write Up**												
09	**Pilot Study**												
10	**Data Collection**												
11	**Analysis**												
12	**Thesis writing/editing**												
13	**Incorporate feedback**												
14	**Submit Thesis**												6
15	**Submit Poster**												6
16	**Submit Supporting Files**												6
17	**Thesis review by supervisors**												

Milestones Key - actual dates of submission:

1	18.10.2021
2	01.11.2021
3	14.11.2021
4	13.12.2021
6	09.01.2022

Actual dates of submissions:

5	08.10.2021
6	09.01.2022
	Time spent on a task
	Expected time frame on task