

تأثير اختلافات السوق على مراحل تنفيذ وتسليم مشاريع البناء الصغيرة
والمتوسطة: دراسة مقارنة بين وسط كوينزلاند و أبوظبي

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الإهداء

إلى وطني الجريح، نبض القلب وملاذ الذاكرة.

إلى والديّ العزيزين، رمز العطاء والبركة.

إلى زوجتي الغالية، سندي ورفيقة دربي.

إلى ابني الحبيب، أمني وغدي المشرق.

إلى إخوتي وأخواتي، أنتم جذور قوتي.

إلى أصدقاء الدرب، من شاركوني المسير.

شكرو وتقدير

إلى كل من علّمني حرفاً، أو حكمة.

إلى كل من ساهم في مسيرتي المهنية والتعليمية، لكم مني خالص الامتنان والتقدير.

إلى مدرستي وجامعتي واساتذتي.

وإلى المشرفين الأكاديميين، الذين لم يبخلوا عليّ بتوجيهاتهم ونصائحهم، فكانت عوناً لي في كل خطوة من خطوات
هذا البحث

الباحث

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Definitions

Word	Definition
Abu Dhabi	One of the Emirates of the UAE, and a major regional hub for infrastructure and construction, with unique market, regulatory, and environmental factors.
Analysis	The detailed examination of data or information to understand trends, impacts, or performance in a project or research context.
Bias	A systematic error in judgment or data interpretation that may distort research or project outcomes.
Central Queensland	A region in Australia known for mining and regional infrastructure projects; used in this research to represent a construction market environment.
Comparative Study	A research approach that systematically compares two or more cases (e.g., regions) to identify similarities and differences.
Cost and Time Overrun	When a project exceeds its planned budget (cost overrun) or scheduled duration (time overrun). Often a result of poor planning or unexpected variables.
Economy	The system of production and consumption impacting funding availability, investment risks, and construction costs in a region.
Environmental Control	Measures and standards enforced to ensure that construction practices do not negatively impact the environment.
Hypothesis	A testable assumption or educated guess proposed at the beginning of research to be proven or disproven by data.
Legislation	Laws and statutory regulations governing how construction projects are designed, approved, and executed within a jurisdiction.
Materials	Physical resources (like concrete, steel, piping) used in construction. Their availability and quality directly impact project time and cost.
Migrant	A person who has moved from one region or country to another for work, often facing challenges such as recognition of experience and local adaptation.
Project	A temporary endeavor undertaken to create a unique product, service, or result (PMBOK®).
Project Cost	The total estimated financial resources required to complete a project successfully.
Project Delivery	The method and process used to plan, execute, and complete a project, including roles, responsibilities, and contractual arrangements.
Project Management	The application of knowledge, skills, tools, and techniques to project activities to meet project requirements (PMBOK®).
Project Resources	The people, equipment, materials, and funds needed to complete a project.
Project Safety	The practices, procedures, and regulations implemented to prevent injury, harm, or accidents on construction sites.
Project Staging	The structured phases in which a construction project is planned and executed, from initiation to close-out.

Project Time	The planned duration required to complete a project's activities, milestones, and deliverables.
Research Limitation	Constraints or weaknesses in the study's scope, data, or design that might affect the generalizability or accuracy of its conclusions.
Soft Skills	Non-technical skills such as communication, adaptability, leadership, and teamwork essential for project success.
Stakeholders	Individuals or organizations actively involved in the project or whose interests may be positively or negatively affected by the project.
Supply Chain	The interconnected network of suppliers, manufacturers, transporters, and clients involved in delivering materials and services for a project.
Theory	A framework or system of ideas that explains certain phenomena and guides decision-making in projects or research.
Training	The process of building project teams' skills and competencies to improve performance, ensure compliance, or adapt to project demands.

المستخلص

تستكشف هذه الدراسة تأثير اختلافات الأسواق الإقليمية على مراحل تنفيذ وتسليم مشاريع البناء الصغيرة والمتوسطة، وذلك من خلال دراسة مقارنة بين وسط كوينزلاند في أستراليا، وإمارة أبوظبي في دولة الإمارات العربية المتحدة. وباستخدام منهجية البحث المختلط، تسعى الدراسة إلى تحليل تأثير مجموعة من العوامل مثل الظروف البيئية، التشريعات، خصائص القوى العاملة، هيكل سلسلة التوريد، والمهارات الناعمة على نتائج المشاريع في كلا المنطقتين. تستند الدراسة إلى نظريات إدارة المشاريع المعروفة، بالإضافة إلى رؤية عملية من محترفين عملوا في كلا السوقين.

تبرز النتائج وجود اختلافات جوهرية في الأنظمة التنظيمية، وتأثيرات الطقس، ومعوقات دخول سوق العمل، ومشاركة المرأة، ومعايير السلامة، كما تكشف أيضاً عن تحديات مشتركة مثل تقلبات السوق وتجاوزات التكلفة والمدة الزمنية.

ومن خلال تقديم مقارنة متوازنة قائمة على البيانات، توفر هذه الدراسة رؤية قيمة لصناع القرار والمقاولين ومديري المشاريع، بهدف مساعدتهم في فهم تعقيدات ممارسات البناء بين الأسواق المختلفة، وتحسين كفاءة تسليم المشاريع في بيئات سوقية متنوعة.

Abstract:

This research explores the influence of regional market differences on the staging and delivery of small and medium-sized construction projects through a comparative study between Central Queensland, Australia, and Abu Dhabi, United Arab Emirates. Using a mixed-method approach, the study investigates how factors such as environmental conditions, legislation, workforce characteristics, supply chain structures, and soft skills affect project outcomes across the two regions. The research draws upon established project management theories and practical insights from professionals who have worked in both markets.

The findings highlight substantial differences in regulatory environments, weather impact, workforce entry barriers, gender participation, and safety standards, while also identifying common challenges such as market fluctuations and cost overruns.

By offering a balanced-data-driven comparison, the study provides valuable insights for policymakers, contractors, and project managers seeking to navigate the complexities of cross-regional construction practices and improve the effectiveness of project delivery in diverse market environments.

Chapter One:

Introduction

1.1. Introduction:

The construction sector is one of the most important sectors globally. Over the course of decades, experts have developed project management methods and principles to track and enhance the projects' effectiveness and efficiency. With the increased demand of global project management to cope with the economic exchange and cultural diversity, there is always a need to study the similarities and variations of the markets between different regions. Such comparative studies can assist leaders and professionals in decision making as it provides a better understanding of construction trends. While there will always be a certain level of risk that can't be eliminated, comprehensive research will assist mitigating the risk for people who are interested in expanding their business or willing to educate themselves about the latest construction trends in other regions.

Both United Arab Emirates and the Australian construction markets have witnessed substantial growth over the past few years. UAE has proven that the impossible is achievable and the future is here, and Australia has a robust economy and promising migration target for construction experts. The construction development is driven by a high infrastructure and housing demand, making the construction sector a unique phenomenon that is worthy to observe and learn from.

The combined value of the Australian and UAE construction market size in 2024 was over USD 221 Billion (Accura Consulting, 2024) marking the significant and the importance of construction market in both countries, and highlighting the potential lay within these markets.

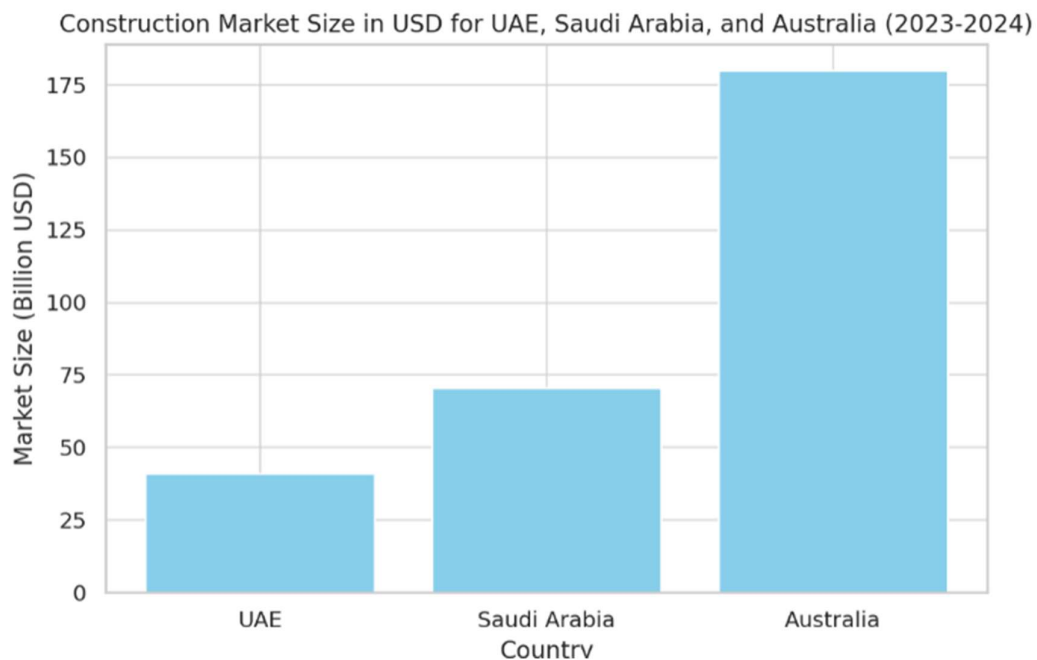


Figure 1.1: Construction Market Size in USD for UAE, Saudi Arabia, and Australia (2023-2024). Accura Consulting, 2024

None the less, there are noticeable differences between the two markets' structures and traits. The regular requirements, workforce composition, market conditions, and environmental expectations have complex layers of uniqueness developing both opportunities and challenges for engineers, managers, and organisations working across these regions.

As someone who has worked in both regions, it's important to emphasise that construction experts will encounter difficulties in transitioning between the two markets. The planning and delivery of projects differ significantly, making the survival in both markets by adopting the same approaches a large stretch and a step into the unknown.

Despite all the challenges and the importance of the matter, especially for new migrants, there is a deficiency in the academic studies addressing the issues and proposing suggested solutions. The little available guidance to distinguish the markets' variations in staging and delivery often makes it harder for people moving between Australia and UAE to adapt.

I put this research in the reader's hands to address this knowledge gap by identifying the key differences between construction projects in Central Queensland and Abu Dhabi. It's an endeavor to investigate how such variations may affect different stages of construction and try to provide a practical insight with a focus on supporting migrant engineers in adopting different markets approaches and fundamentals.

1.2. Problem Statement:

Projects have global characteristics, but there are significant differences exist between markets that affect how projects are planned, staged, and delivered. Engineers and construction managers working across different regions often face challenges in adjusting to these differences, which can lead to delays, inefficiencies, and increased project risks.

Particularly, the construction markets of Central Queensland, Australia, and Abu Dhabi, UAE, show clear differences in regulations, environmental expectations, labour availability, workforce structure, and economic conditions. However, there is a lack of research comparing how these market differences influence the staging and delivery.

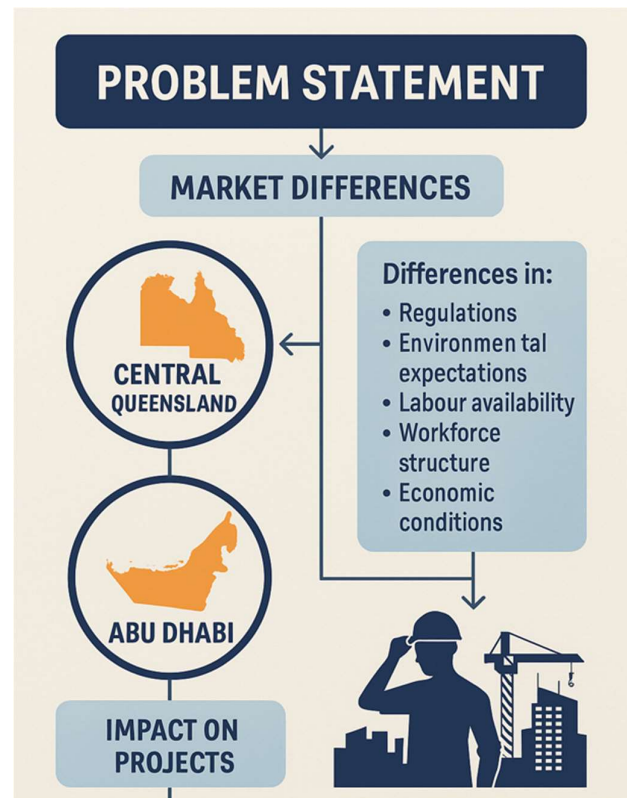


Figure 1.2: Problem Statement

As I have experienced myself, this knowledge gap creates challenges for construction professionals and companies operating in these regions. This research aims to investigate the key market differences between Central Queensland and Abu Dhabi and how they affect project staging and delivery. The study will also explore how construction professionals, particularly migrant engineers, can better adapt to these market conditions to improve project outcomes and reduce risks.

1.3. Research Importance:

During my initial preparations of this research, I tried to reflect on previous studies comparing the construction market in UAE and Australia, and it was obvious that there are limited studies in this regard. This increase the importance and significance of this study. Deficiency in information available about such matter may produce a reluctant approach towards a new market, in other words, it may represent a miss-chance for the developers who decide to eliminate the risk by avoiding any business involvement in a market that is considered unknown to them. I consider this comparison study important to reduce the uncertainty and the risk related to expanding business between the two areas.

This study primarily is useful for engineers, construction managers, and everyone working in construction projects, especially those who are involved in small and medium sized project in both Queensland, Australia and Abu Dhabi, UAE. As I have gone through this experiments myself, I'm hoping this research will help new migrants to Australia to settle in more easily as it's often challenging to adapt and find their feet in a busy and tough market with substantial differences in a lot of stages and aspects of such projects. In the same way, it shall provide the beneficiaries in UAE with an understanding of what the Australia market looks like. Both parties can use this study to seek development, reduce mistakes and learn lessons.

Additionally, the research should provide policymakers with educated decisions about opportunities and challenges in expanding the market globally by pointing out the key differences in the two markets and how they interact with demands, projects' delivery and supply chains.

1.4. Research Objectives and Purposes:

1.4.1 From a theoretical perspective: the research significance will fall in the following areas:

- 1- Contribution in the academic understanding of how the differences affect the staging and delivery of the construction projects.
- 2- Adding to the limited number of comparison studies in construction field between Central Queensland and Abu Dhabi.
- 3- Enriching project management theories in linking the markets and delivery efficiency.
- 4- Build a bridge of knowledge for the targeted group of the research.

1.4.2 From a practical point of view, I'm aiming for my study to:

- 1- Provide actionable insights for engineers and managers to adapt during the different stages of the projects.
- 2- Provide a better planning opportunity for people who are interested in doing business between Central Queensland and Abu Dhabi.
- 3- Support new migrants in their efforts to start a professional career, especially considering the difficulties of entering the market without local experience, something I have personally experienced.
- 4- Measure the tangible parameters using the project management theories to identify the areas of improvements in both markets.
- 5- Mitigating risk for the professionals aiming to start business exchange and seeking global expansion.

The main objective of the research is to summarise the professional experiences of construction specialists -and researcher's experience- who have worked in both Central Queensland and Abu Dhabi, with the aim of facilitating a smoother transition for construction projects and professionals moving between these two regions.

1.5. Research Questions:

The main question of my study is how do market differences between central Queensland, Australia, and Abu Dhabi, UAE, influence the staging and delivery of small and medium sized construction projects? Within this question, there are a few sub-questions the study will answer:

- 1- What are the key market differences between the two areas when it comes to construction projects?
- 2- How do these differences impact the various stages of the project, especially execution phase?
- 3- What are the main challenges that engineers and managers face when moving in between the two regions?
- 4- How can construction professionals adapt and overcome these challenges.
- 5- How to mitigate the risk when approaching the other market from an investment perspective?
- 6- What are the lessons learnt from this comparison?
- 7- What causes of delays and failure to expect in both markets?
- 8- How can the community habits and trends affect the construction stages differently?
- 9- What role does the environment and sustainability play in both regions?
- 10- What are the opportunities and threats of either market?

1.6. Research Hypotheses

There are a few assumptions and hypotheses for my research explained below:

- 1- **First Hypotheses:**
The construction industry is significantly different in the UAE compared to the construction in Central Queensland.
- 2- **Second Hypotheses:**
While the main stages outline is generally the same in both countries, there are substantial differences in the way the stages are carried out in practice.
- 3- **Third Hypotheses:**
The Australian construction market is more affected by the fluctuations in global material pieces and interest rates compared to the UAE market.
- 4- **Fourth Hypotheses:**
The Major factors contributing to projects' cost and lead times differ significantly between the two regions.
- 5- **Fifth Hypotheses:**
Environmental requirements, standards and procedures are strictly enforced in Central Queensland compared to Abu Dhabi.
- 6- **Sixth Hypotheses:**
There are noticeable variations in gender and age distribution of the construction workforce between the two regions.
- 7- **Seventh Hypotheses:**
It is generally easier to enter the construction industry in Central Queensland compared to the UAE.
- 8- **Eighth Hypotheses:**
The construction sector plays a major role in driving other industries in both countries.
- 9- **Ninth Hypotheses:**
Migrant construction experts moving from UAE to Australia are capable handling the challenges of the Australian construction market.
- 10- **Tenth Hypotheses:**
The different weather conditions in both regions enforces different approaches.
- 11- **Eleventh Hypotheses:**
The size of the regions and their population density play a direct role in influencing variations trends.

1.7. Theoretical Model:

To measure how accurate the concepts and hypothesis of this study, I have adopted a model of measuring the key factors affecting any construction market. Not only the mere cost and timeframes, but also the attributes of working place and community may affect the construction projects.

The main areas I'm trying to cover are:

- 1- Community and softs skills effects.

- 2- Laws and regulations effects.
- 3- Environmental effects.
- 4- Resources effects.
- 5- Economy and finance effects.

The multi factors interact with each others to produce a unique model for each market, which requires different dynamics to absorb expected and unexpected challenges.

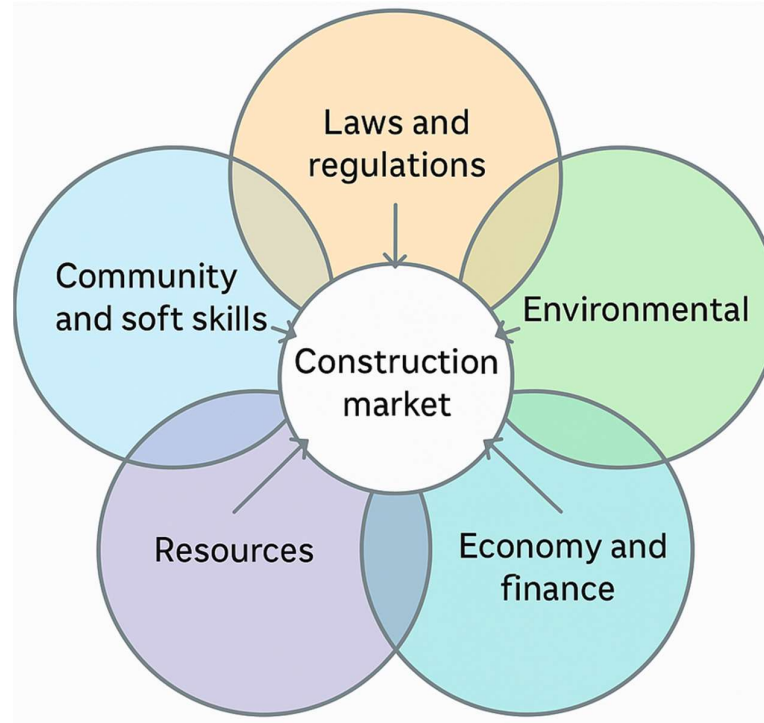


Figure 1.3: Theoretical research areas

While this research isn't detailed enough to explain all the puzzle pieces due to time restrictions, it may be considered a trigger for further research and thorough considerations for me, other researchers, interested individuals, and migrants.

It's important to mention that the choice of Abu Dhabi and Central Queensland as the targeted areas is because the researcher has worked in both regions. This means the input and interpretations throughout the study can be directly reflected through firsthand professional experience. Such familiarity offers deeper contextual understanding and enhances the practical relevance of the research, particularly when analysing the opportunities, challenges, and dynamics of each market.

Chapter Two:
Previous Studies

2.1 Introduction

While there is a limited amount of construction research comparing the Emirati market and the Australian market generally, and Abu Dhabi and Central Queensland particularly, there is a fair volume of studies focusing on each country separately because the construction market contributes in the local economy with billions of dollars in both UAE and Australia, leading to place the construction market aspects and trends under the microscope.

I tried to summarise the researches in a focused manner that provides the reader with relevant substances. The findings of the previous studies might match or differ with my findings at the end of this research, all depending on the perspective and approach. I must notify the reader that most of the previous studies I included probably have a higher level of reliability when compared to my own, especially in the case of studies published by official entities and statistics covered over the course of a few years.

Additionally, I have tried to avoid cherry picking to eliminate any bias in presenting the information to the reader, while trying to stay balanced in choosing the most relevant studies assisting in the correct establishment of my research foundations.

2.2. Previous Studies:

- 1- Project Management Performance in the UAE Construction Industry.
(American Society of Civil Engineers, 2014)

This study highlighted the gap between the adaptation of project management tools and monitoring the actual performance and outcomes. The authors concluded that adopting the traditional project management tools doesn't lead to an automatic improved performance. The actual main factor affecting the success is the effective implementation of the project management tools, it's how not what you implement.

Additionally, the research pointed out the importance of continuity in training to develop the skills and bridge the gap between the takeaways and the tools utilisation.

- 2- UAE Construction Market Intelligence Q1 (Laura Morgan, 2024).

This report shed light on the construction market trends and economics. By explaining how financial markets are affected by the supply chain distribution and labor shortages, the report explained how resilient the UAE construction sector is with not much fluctuation.

The key lesson learnt is adopting dynamic strategies, UAE was successful in absorbing any possible economic damage, not only that, but it's also how risk is anticipated and managed in the favor of the construction sector.

- 3- Queensland region Construction Supply and Demand Analysis 1995-2029. (National Institute of Economic and Industry Research (NIEIR), 2019).

A detailed governmental report to analyse the construction supply and demand trends in Queensland. It provides an insight into the regional construction activities in the period of 1995-2019, and a forecast of how the trend would look like in the following decade.

The study showed the importance of effective planning in achieving long-term development objectives. It has also suggested how to eliminate or mitigate the risks associated with potential challenges in the Australian construction market based on data-driven approaches. Another fact discussed is the need for labor force support policies and legislation protecting expansion and retention.

Additionally, the research suggested that the development of regional infrastructure alongside the supply chain availability plays a significant role in construction projects delivery.

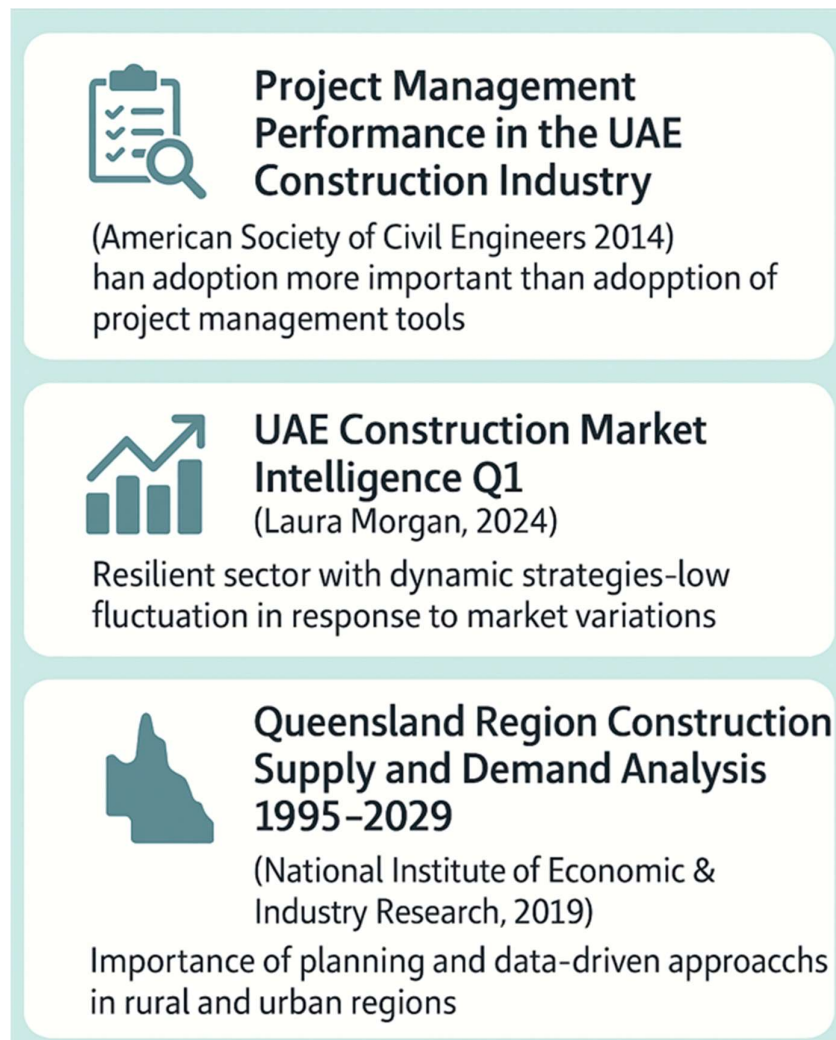


Figure 2.1: Previous Studies' Outcome

4- CSQ Industry Outlook 2024-2025 (CSQ, 2024)

This report examines the resilience of Queensland's construction industry and how it could fight the high interest rates and rising living costs. The report stipulates that

innovation is a key factor in success and developing workforce methods is the shelter from economic instability. It has also showed that supporting growth in Queensland construction market can be achieved by strategic planning and proactive measures against the risks and uncertainties.

The report also highlights the fact that the construction sector is contributing significantly to the state's economy supported by statics and numeric proofs.

5- Barriers to Employment for Migrant Engineers (Engineers Australia, 2021).

An official research study carried out by Engineers Australia. The study dives into the employment challenges faced by the overseas-born engineers that have moved recently to work and live in Australia. Despite being 58% of the national engineering workforce, the migrant engineers suffer from higher unemployment rate when compared to their Australia-born peers.

The study suggests that there are a lot of reasons of this issue, including:

- a- Lack of local experience: employers tend to prioritise the local workforce over the newcomers.
- b- Skepticism of engineering credentials and recognition of overseas qualifications.
- c- Limited references and professional network: new migrants lack local connections that might assist their efforts in finding jobs.
- d- Communication and culture factor: New country, new culture means difficulties in blinding in the local communications styles.

The study has concluded a few solutions of the case, including providing supportive programs for migrant engineers, employers' engagement by the government to explain the importance of assisting newcomers, and policy implications that can make the lives of migrants easier by finding their first job.

6- How Forensic Quantity Surveyors impact construction dispute resolutions, a UAE, KSA, Australia Comparison.

This comparative study highlights how forensic quantity surveys helps in resolutions of construction disputes in KSA, UAE and Australia. It suggested that both markets faces delays and cost overruns. However, the approach in the dispute resolution differs much:

- a- The total value of construction sector value exceeds USD 41 Billion in UAE and exceeds USD 180 Billion in Australia.
- b- The Australia market has a longer average resolution time but lower average dispute value when compared to UAE.

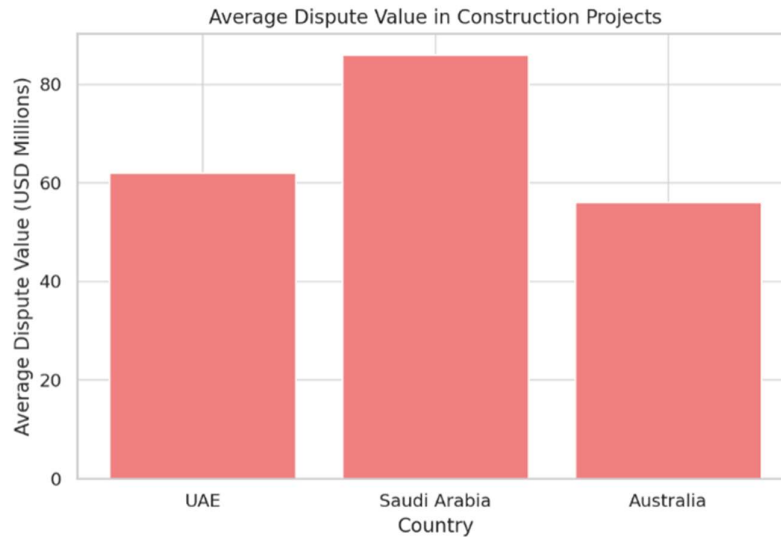


Figure 2.2 (from source): Average Dispute Value in Construction Projects (USD Millions)

- c- Disputes in Australia are generally due to complex contractual issues while the main reason of disputes in UAE is due delayed claims and unclear scope.
- d- Forensic Quantity Surveys are more commonly used in Australia, however, the awareness in UAE is increasing about the mitigating risk and avoiding litigation. Litigation rate percentage is higher in Australia.

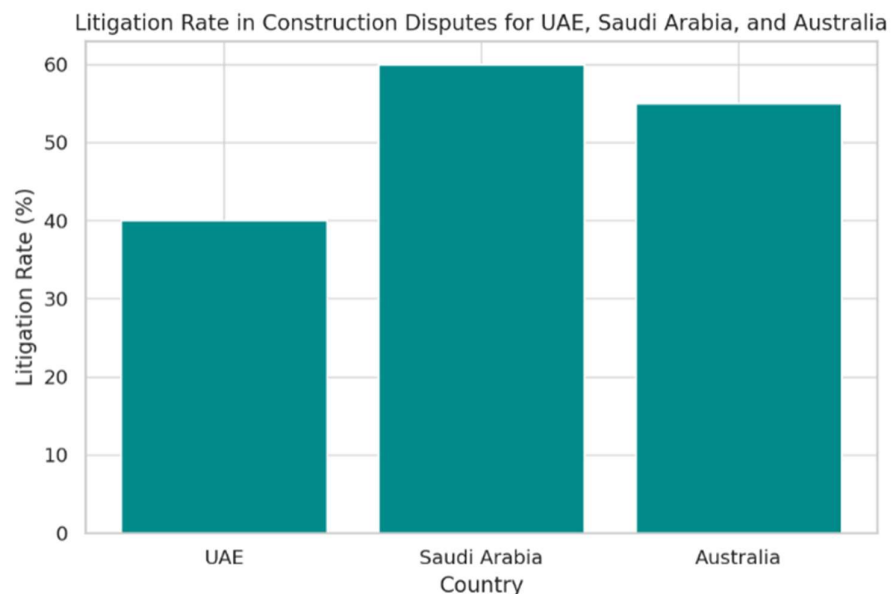


Figure 2.3 (from source): Litigation Rate in Construction Disputes for UAE, Saudi Arabia, and Australia

- e- There is an increased adoption of proactive cost assessment in UAE including early dispute identification.

The following figure puts the comparison in summary:

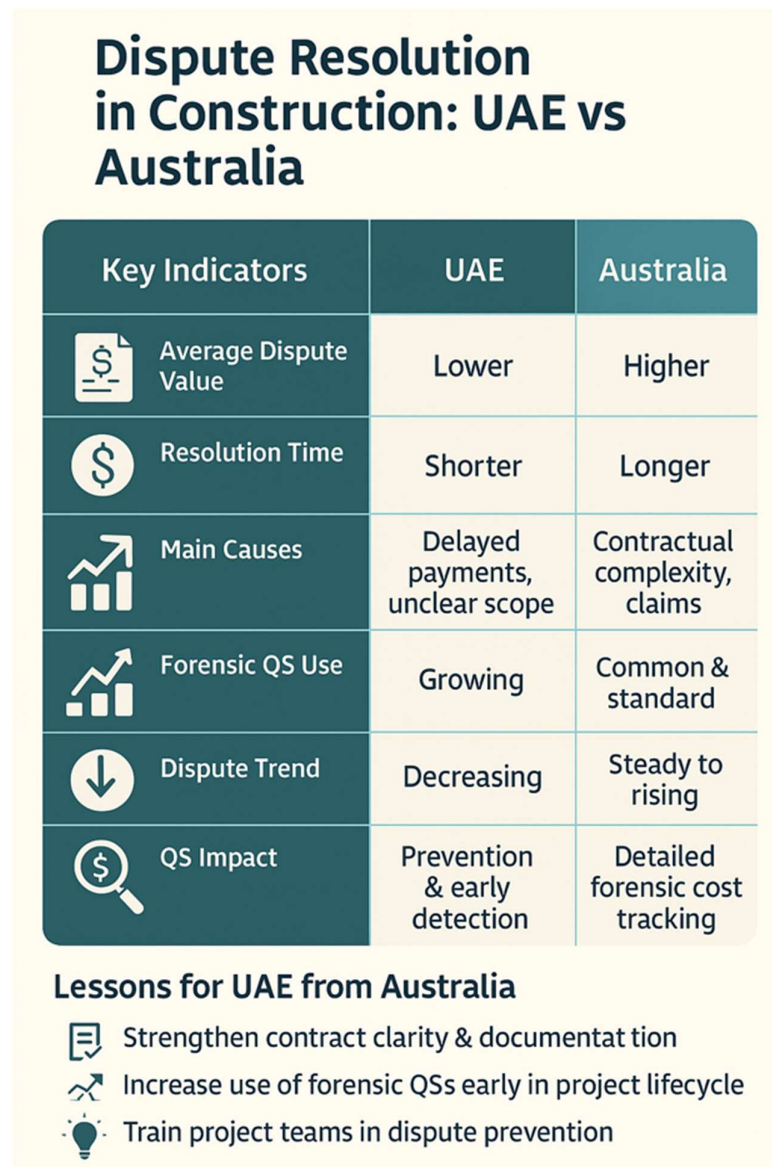


Figure 2.4: Conclusion of How Forensic Quantity Surveyors impact construction dispute resolutions

7- Barriers to Implementing Environmental Sustainability in UAE Construction Project Management: Identification and Comparison of ISO 14001-Certified and Non-Certified Firms (Various Authors, MDPI,2024)

This study explains the key barriers in the UAE market hindering effective implementation of environmental controls. It covered 90 firms -both ISO 14001 certified and non-certified). The study rates the barriers as follows:

- a- Prioritising economics over sustainability.
- b- Lack of policymaker support.

c- Difficulties in reduction of energy usage during construction phase.

It's worth mentioning that ISO accreditation had no significant impact on how firms adhere to sustainability matters. The study suggested that regulations must be enforced in a better manner and transparently, and awareness levels about the importance of green construction must be raised to achieve better environmental adherence.

Key Barriers to Sustainability in UAE Construction

TOP BARRIERS



Economic Priorities

Ranked #1 across all firms
Biggest obstacle: short-term profits over long-term sustainability



Insufficient Policy Support

Slow or unclear government enforcement



Energy Reduction Challenges

Difficulty implementing energy-saving measures on-site

ISO certification made no significant difference across these)

BARRIER CATEGORIES

Policy & Organizational

Economic focus
+ weak policy backing

Resource & Compliance

Energy inefficiencies

Design Implementation

Lower adoption of sustainable design

ISO certification made no significant difference across these)

Figure 2.5: Conclusion of Barriers to Implementing Environmental Sustainability in UAE Construction Project Management

2.2.1 Conclusion from Previous Studies:

- 1- The construction sector is well-represented in both UAE and Australian economy.
- 2- Adoption of project management tools alone is not sufficient to lead to successful delivery of construction projects.
- 3- Continuous training and development are essential to fill the gaps between the theories of management and actual project performance.
- 4- The UAE construction sector has shown resilience with dynamic strategies and proactive risk management.
- 5- The importance of effective planning is highlighted while studying construction trends in urban and rural areas of Queensland
- 6- Data-driven decisions are often the best decisions.
- 7- Innovation and developing workforce methods are vital for economic resilience in central Queensland.
- 8- The cost of litigations in disputes are higher in Australia compared to UAE.
- 9- High interest rates and rising living costs affect the construction industry of Central Queensland.
- 10- Environmental regulations are applied better in Australia and there are barriers in such application in UAE.
- 11- Migrant engineers coming to Australia are facing significant barriers to employment including local experience and culture shock.

2.2.2 Recommendations based on Previous Studies:

- 1- Managers must focus on practical implementations rather than adopting formal tools and standards.
- 2- Construction professionals in both regions should engage in continuous professional development to adapt to evolving market demands.
- 3- Dynamic and proactive risk management strategies should be applied to reduce the impact of market fluctuations.
- 4- Authorities and industry bodies in both regions should develop policies to support workforce development, with special attention to migrant workers.
- 5- In Queensland, strategies to support regional infrastructure development and strengthen supply chains are recommended to improve project delivery.
- 6- Supportive programs, networking opportunities, and recognition of overseas qualifications should be enhanced to ease the integration of migrant engineers into the Australian construction workforce.
- 7- Construction experts must offer incentives for green practices and strengthen environmental framework.

2.3. Research Theoretical Framework:

This research is based on various theories and their concepts to explain the major market differences between Central Queensland and United Arab Emirates influencing the construction projects.

2.3.1. Project management Theories: Emphasising the traditional management tools and concepts:

- a. Planning of projects.
- b. Execution and monitoring projects.
- c. Resources and timeframes.
- d. Budgeting and costs.

2.3.2. Market Environment Theories: Exploring the market trends and conditions:

- a. Economic conditions.
- b. Labour markets and finance.
- c. Supply chain.

2.3.3. Human Resources and Adaptation Theories:

- 3.a. Migration workforce.
- 3.b. Work culture.
- 3.c. Expectations and standards.

2.3.4. Finance And Laws Theories:

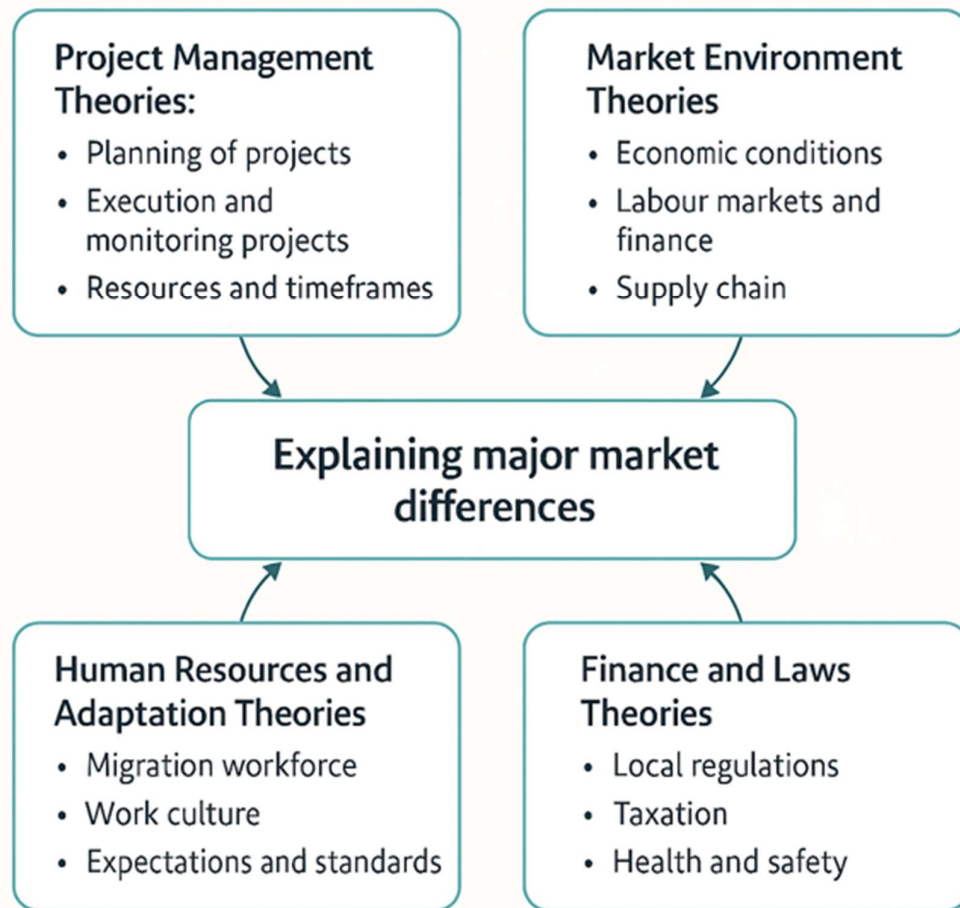
- 4.a. Local regulations.
- 4.b. Taxation.
- 4.c. health and Safety.

By using the combination of such theoretical foundations, this research will provide a handy source for any entity or personnel interested in the Emirati and/or Australian construction pool especially when it comes to adaptations and utilisation of efforts, time, and money.

The above-mentioned theories and concept are used to validate my research conclusions and outcomes.

Research Theoretical Framework

This research is based on various theories and their concepts to explain the major market differences between Central Queensland and United Arab Emirates influencing the construction projects.



By using the combination of such theoretical foundations, this research will provide a handy source for any entity or personnel interested in the Emirati and/or Australian construction pool especially when it comes to adaptations and utilization of efforts, time, and money.

The above-mentioned theories and concept are used to validate my research conclusions and outcomes.

Figure 2.6: Research Theoretical Framework

Chapter Three:
Research Methodology

3.1 Introduction:

While the subject is complex, my approach in this chapter is focusing on addressing the variance between the markets of UAE and Central Queensland in the simplest possible way. I adopted a descriptive approach based on numerical data. This mixed approach shall provide the reader with concrete evidence about each aspect measured in the study.

Distinguishing the trends of both markets side to side can guide the audience to practical solutions for the forecasted issues withing the range of this study, as in bridging the theories and assumptions to results and conclusions.

I'm aiming for the knowledge gained academically within this research to have the potential to be translated into real-life proposals solving actual obstacles. Generating dynamic conclusions can lead to the birth of actionable plans when such conclusions are based on robust foundations.

This chapter will discuss the methodology, means, and limitations of the study.

3.2. Research Methodology:

This research is based on mixed-method approaches. Using quantitative and qualitative data to explore the market variations and validating that against the previous research and published studies. By combining numeric and descriptive data, the study will enable interested researchers to build decisions about similar matters.

Applying comparative research methodology between the two regions can explain how the global markets work together or against each other in construction projects' delivery.

By using questionnaires, I could measure the experts' opinions and ideas to lead the reader to valuable numeric outcomes, especially that the survey will target people in both UAE and Australia.

My methodology focuses on practical applied research which connects dots between project management theories and real-world issues, coming up with a comprehensive understanding of the research problem.

This approach shall help in bridging the gaps between the global markets and will reinforce the understanding and expectations of construction workforce.

3.3. Research Tools:

While trying to achieve the objectives of this study, I'm using a set of analysis tools to ensure that my results are reliable and valid.

3.3.1 Survey Questionnaire:

A well-structured questionnaire developed and distributed to construction professionals working in Central Queensland and Abu Dhabi. This questionnaire will

collect data in regard market differences, project management practices, cost, and different challenges that hinder the projects from an engineering and management perspective.

3.3.2 Personal Experience:

Initially, I intended to conduct a semi-structured interview with selective personnel who have worked and lived in both areas. This was meant to provide a deeper insight into the professional and personal experience that relates to these research problems.

However, I decided to change the approach. Alternatively, I will use my own experience and understanding of both markets and embed it in the commentary and observations. I believe that presenting my personal experience in this research demonstrates a truthful opinion presented to the mind of the reader.

3.3.3 Quantitative Data Analysis:

All the data collected from the survey questionnaires and interviews will be processed and analysed using quantitative methods. I will use statical tools such as frequency analysis, average, and comparative charts that can identify trends and differences between the two markets.

3.3.4 Geographic information Systems (GIS):

GIS tools can be used to present a visual representation of data and market distribution between central Queensland and Abu Dhabi. We can identify project locations or any other spatial factor where applicable.

3.3.5 Professional Social Media Platforms:

Public professional platforms such as LinkedIn can be utilised in observing the construction trends in both areas. Required qualifications and recruiters' expectations can be detected by surfing through such platforms to point out patterns of skills or challenges of the interested parties in the study.

3.4. Study Population and Sample:

For purpose of my study, the population consists of construction professionals who are working or have previously worked in small and medium sized construction projects in both Central Queensland, Australia and Abu Dhabi, UAE. The population also includes experienced professionals from other Australian ang Arabic gulf regions. This includes engineers (not necessarily limited civil engineers), project managers, and other technicians involved in staging and delivering construction projects.

Due to the limitations in timeframes and difficulties in accessibility for large number of experts across two different continents, I will use a purposive sampling method to choose relevant experienced personnel. Priority will always be in favor of professionals that have worked in both regions and have direct experience with challenges of different markets.

That being said, like the anticipated majority of the audience of this study, most participants in the questionnaires are migrants' construction experts.

The sample will not distinguish different construction sectors or project portfolios. That means it will not matter whether a participant's background is in building construction, infrastructure, highways, or any other related field. The study aims to capture diverse perspectives and is not limited to Arabic-speaking participants. On the contrary, the study will intentionally include individuals from over twenty different nationalities and more than five native languages.

3.5. Research Limitation:

This study has several limitations mentioned below:

3.5.1 Geographical Location:

The research is limited to the two regions only, Central Queensland in Australia and Abu Dhabi in United Arab Emirates. While there are a lot of similarities between Central Queensland and the rest of Australia from one side, and similarities between Abu Dhabi, the rest of UAE's Emirates, and the Arabian Gulf countries in general on the other side, I need to stipulate that this may affect the generalizability of the results to the other locations.

3.5.2 Project Size:

The study is concerned mainly in small and medium sized projects. Mega structures like national projects and substantial high value projects are excluded from the measurements of my study. Likewise with programs and portfolio over the course of long period of time.

3.5.3 Projects Field:

Construction, especially from Civil Engineering perspective. While there could be a lot of similar scenarios in other fields, the results of such study can't be precisely applicable for fields like Information Technology or Sales Logistics.

3.5.4 Researcher's Work Experience:

I have worked in Central Queensland for only two years, compared to ten years in Abu Dhabi. The difference in exposure might influence my interpretation of my observations. However, this factor might be reduced given the fact that I had a decent experience in Engineering and project management when I started working in Australia compared to my early years in construction after graduation.

3.5.5 Perspective of the participants:

This study reflects the perspective of engineers and managers generally; other perspectives such as directors and accountants are limited. Also, the study mainly focuses on the perspective of educated personnel, with less emphasis on the views of labour workforce, such as operators and labourers.

3.5.6 Rarity in Similar Studies:

There is a limited number of previous studies discussing the variations between the areas which made it harder for me to build directly on previous studies. In this case, I tried to connect the two worlds based on the professional experts' opinions and observations in the two countries.

3.5.7 Researcher bias:

While I spent every possible effort to maintain objectivity, my professional and personal background may present some bias in the proposed areas of study and the interpretation of the collected data.

3.5.8 Time Constraints:

This study is built to be presented as a graduation project for my master's degree in project management at Midocean University. Due to time limitations, the data collected could be enhanced in number of participants and over the course of a longer period.

Chapter Four
Results and Recommendations

4.1. Introduction

To measure the dependent variable of the research which is the difference and the effective delivery of the projects between Queensland and Abu Dhabi, the questionnaire targets several independent variables, grouped into five main categories:

- 1- Community and softs skills effects.
- 2- Laws and regulations effects.
- 3- Environmental effects.
- 4- Resources effects.
- 5- Economy and finance effects.

The study assumes that each independent variable has a direct effect on the independent variable, even though the independent variables have interrelated effects and may interact in a complex way (i.e. the way time and cost interact). Also, it is also important to note that the study does not attempt to rank the variables by weight or importance; instead, it aims to highlight the differences and assess their influence on project staging and delivery outcomes.

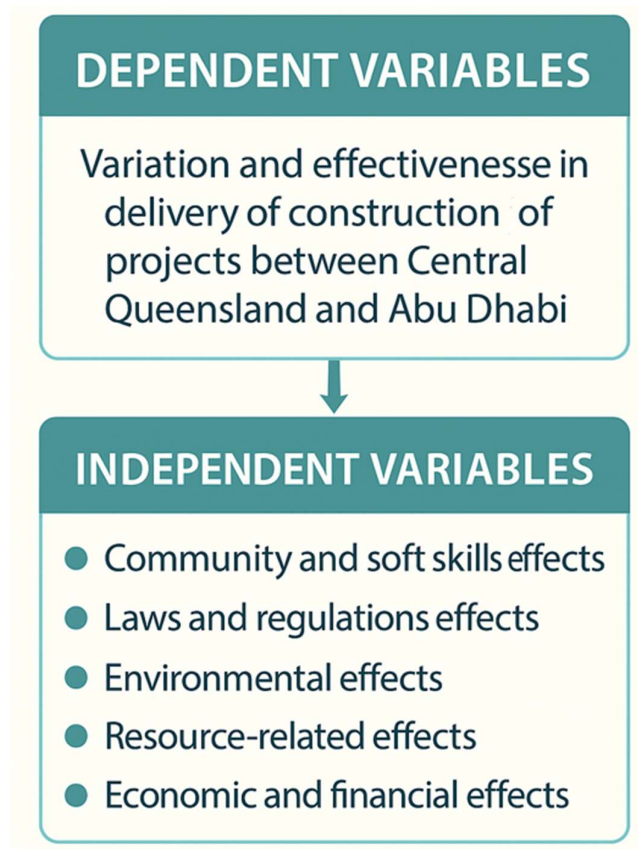


Figure 4.1: Dependent and Independent Variables

4.2. Results and discussions

4.2.1 Filtration and eligibility:

To ensure the reliability of results, the questionnaire was distributed to participants who are currently working -or have previously worked- in both/either government or private sector construction companies.

For obtaining sufficient and representative data, individuals who have worked in any part of Australia were considered as representatives of those with experience in Central Queensland. Similarly, participants with experience in any of the Gulf countries were treated as representatives of those who have worked in Abu Dhabi.

The questionnaire was administered electronically using Google Forms, which allowed for the inclusion of multiple logically based layers and filters. Based on the participants' responses, the form directed them to the most relevant sections. These filters are:

First filter: Have you ever worked in construction projects?

Purpose: If the answer was "No," the survey ended immediately.

Result:

This filter suspended 22% of participants who were willing to participate but their work experience is deemed to be irrelevant to the subject. This saved them time and effort, also, protected the reliability of the results.

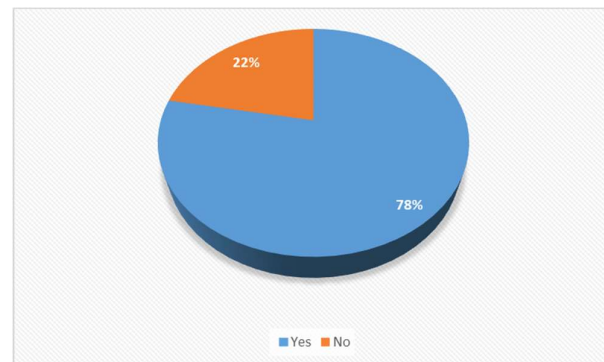


Figure 4.1: First filter

Second Filter: Have you ever worked in Australia?

Purpose: This question determined whether the respondent was directed to the Australian section or whether it was skipped.

Result:

74% of the participants worked in Construction in Australia.

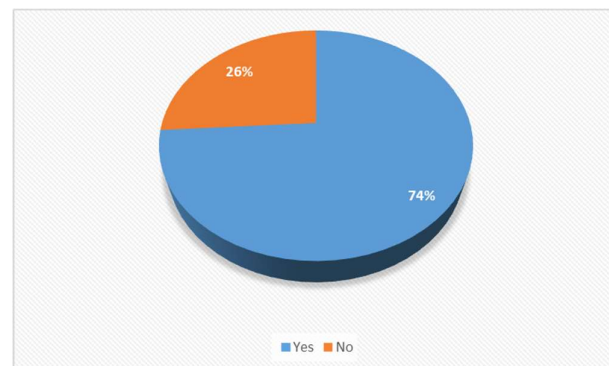


Figure 4.2: Second filter

Third filter: Have you worked in construction projects in any of the Gulf countries (UAE, Saudi Arabia, Qatar, Bahrain, Oman, Kuwait)?

Purpose: This filter guided participants to the Gulf Countries section or skipped it accordingly. If the participant has never worked in either region, the survey directs them to survey completion.

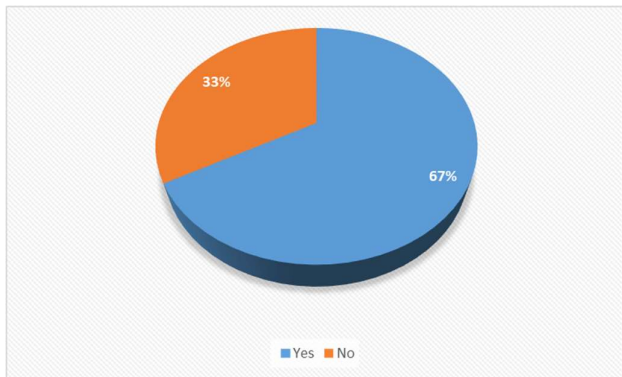


Figure 4.3: Third filter

Result: 67% of the participants worked in Construction in Australia.

Fourth filter: Would you like to finish the survey now, or answer a few extra questions to help new migrants better understand the Australian construction market requirements?

Purpose: Depending on their choice, participants either ended the survey or continued to an optional advisory section intended to support new migrants. To get to this point, the participant must tick the box of having a construction experience in both Australia and the Gulf countries.

Result: Only 64% of the participants who are eligible decided to finish this section. This might be for several reasons, which I have ranked as follows:

- a- Participants have no additional time to spare.
- b- Participants have lost interest at this point in the questionnaire.
- c- Participants are indecisive about how they might assist migrants.
- d- Participants reckon their opinion could be misleading or biased.

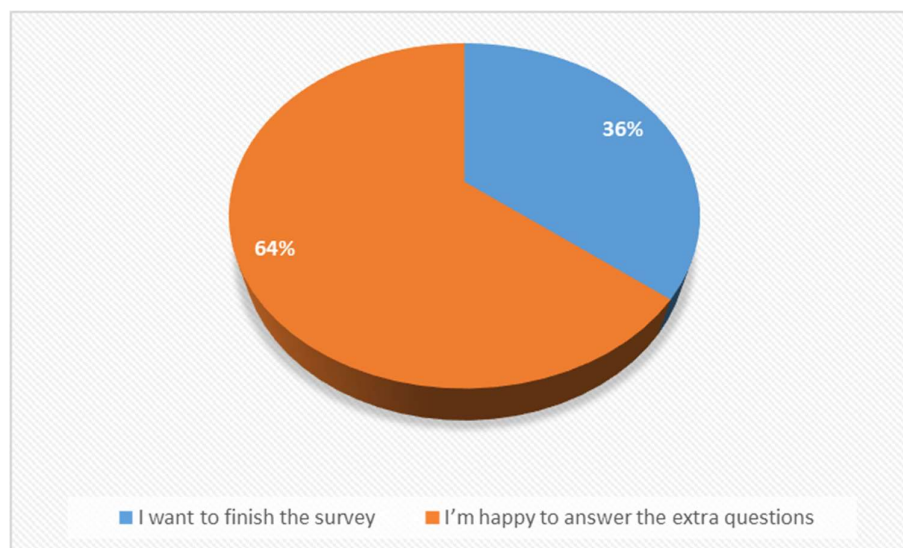


Figure 4.4: Fourth filter

Survey Participation Flow

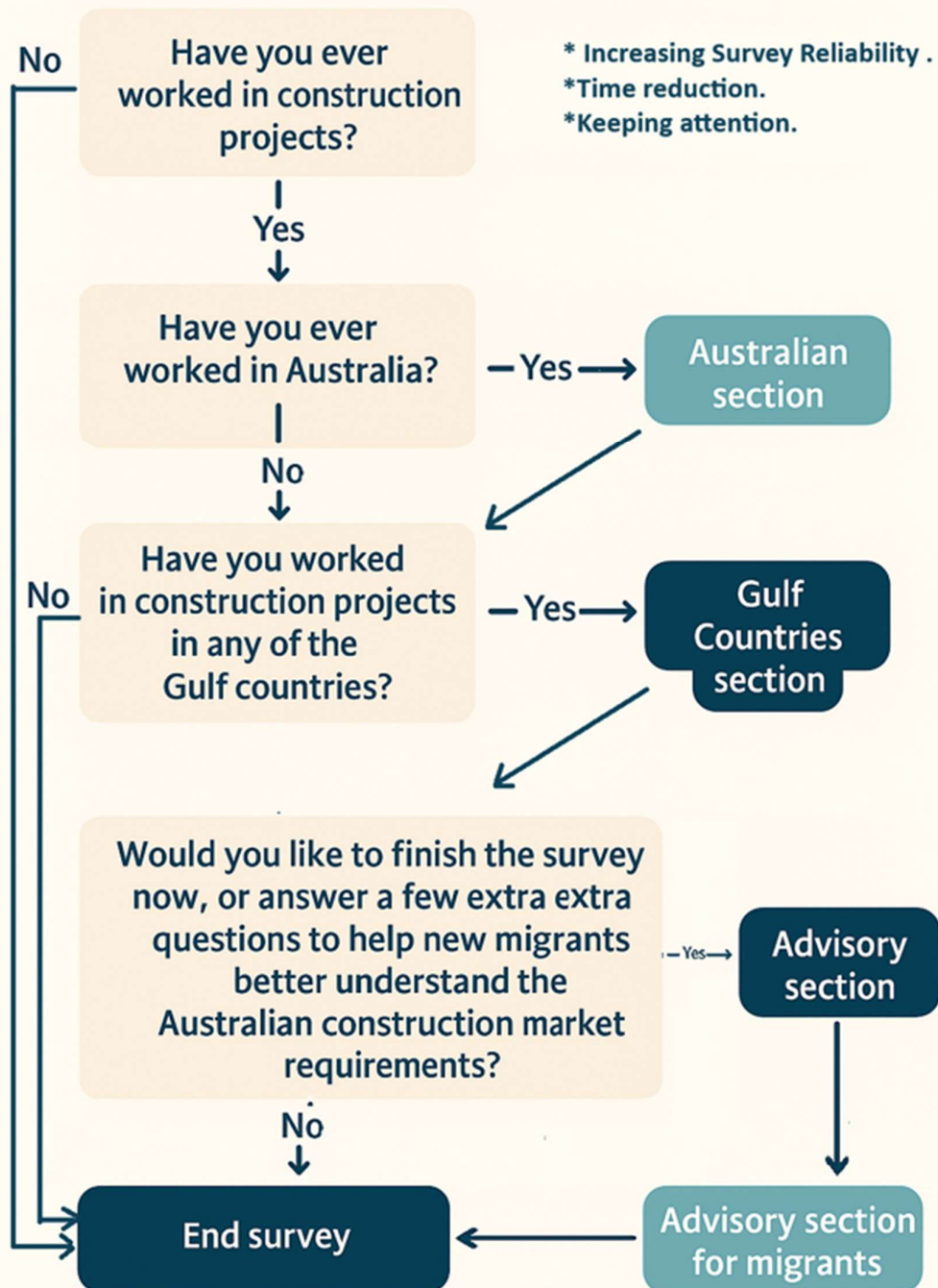


Figure 4.5: Survey participation filters flowchart

4.2.2. General characteristics of the participants:

The purpose of the four questions in this section is to introduce the participants to the readers so they can understand the background and diversity of the surveyed group. These characteristics help in interpreting the findings by providing context about the participants' experience, qualifications, and roles in construction projects. This includes their age group, total years of experience in the industry, the highest professional title they have held, and the highest academic or trade qualification they possess. Understanding these attributes is essential for evaluating the credibility of the responses and for assessing how representative the sample is of the wider construction workforce in both Central Queensland and Abu Dhabi.

While in such studies researchers tend to ask about gender, I believe it's irrelevant to the purpose of this research. The objective is to analyse professional insights, technical knowledge, and market experience, which are not influenced by the gender of the participant.

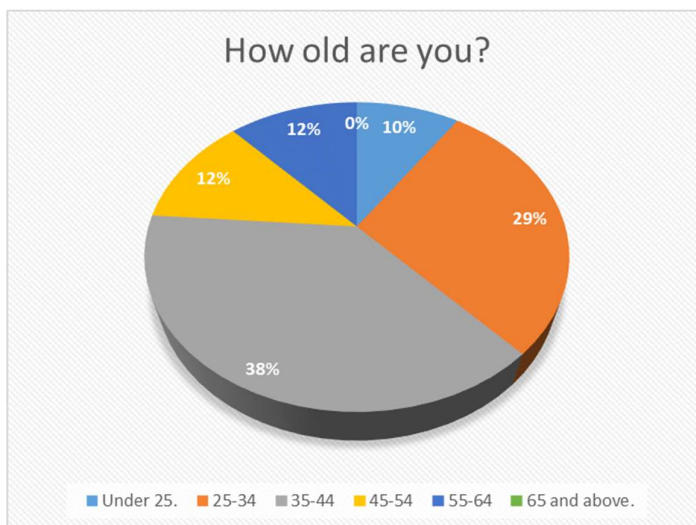


Figure 4.6: Age results

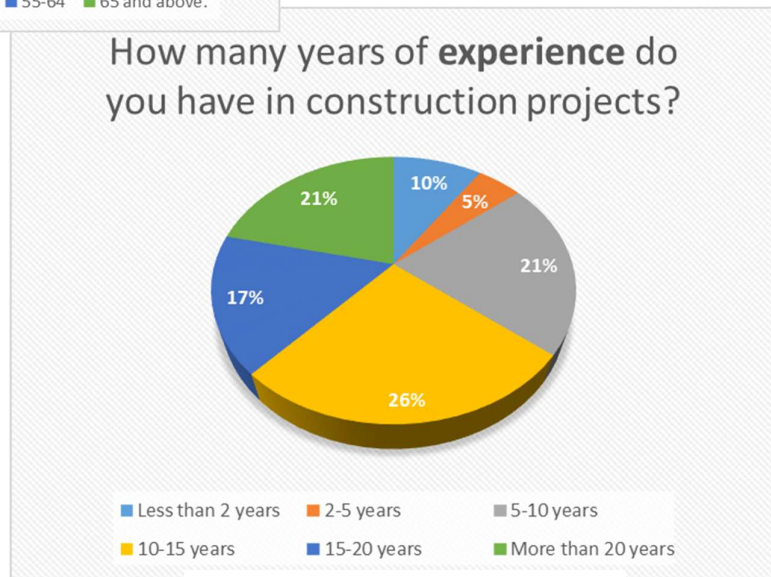


Figure 4.7: Experience results



Figure 4.8: Title results

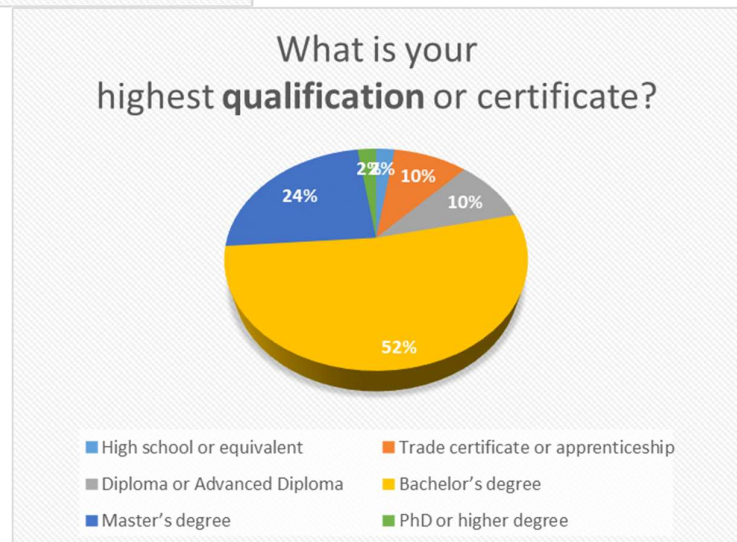


Figure 4.9: Qualifications results

The results of the questions need no analysis; I will leave them for the reader to review and interpret independently. These responses are intended to provide general context about the participants' backgrounds, helping the reader better understand the diversity and relevance of the insights shared throughout the study.

4.2.3. Region analysis:

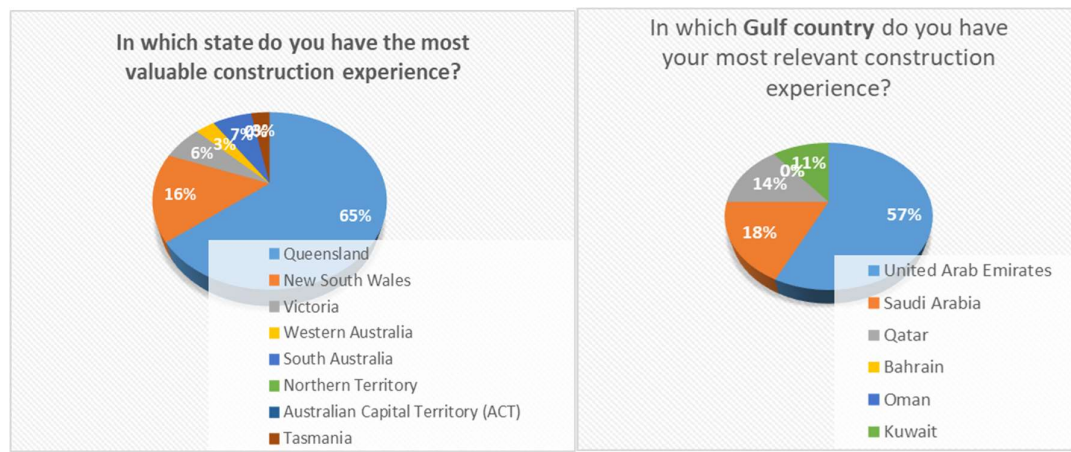


Figure 4.10: Region results

Most of the participants have worked in both the UAE and Queensland. While I have already assumed that experience from anywhere in Australia or the Gulf countries is acceptable for the purposes of this research, this outcome strengthens the focus on the targeted areas -Abu Dhabi and Central Queensland-. It reinforces the validity of the study's geographic comparison and supports the relevance of the findings to the specific regions under investigation

4.2.3. Employment analysis:

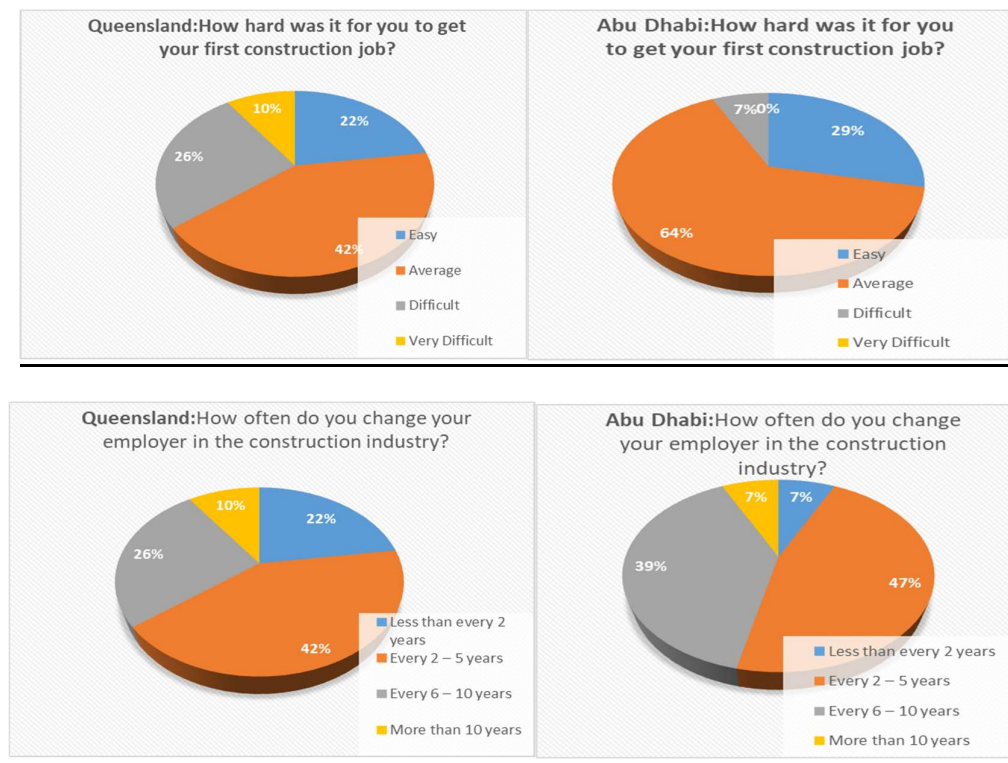


Figure 4.11: Employment results

The responses to the employment-related questions reveal a noticeable difference in how participants experience the construction job market in Central Queensland compared to Abu Dhabi.

4.2.3.1 Firstly, when examining the difficulty of obtaining the first job in the construction industry, participants with experience in Queensland generally reported a higher level of difficulty compared to those who began their construction careers in Abu Dhabi. A primary factor contributing to this challenge appears to be the lack of local experience, which is often a key requirement in the Australian job market. Migrant professionals in Australia frequently encounter hesitation from employers who prioritise familiarity with local standards, regulations, and work culture. This hesitancy can be further compounded by limited professional networks and lack of Australian references, both of which are vital in gaining initial employment in the sector.

On the other hand, in Abu Dhabi, the process of entering the job market seems relatively more straightforward for many. One of the main reasons for this is the employer-linked visa sponsorship system. In most cases, migrant professionals arrive in Abu Dhabi with pre-arranged employment, having already secured a position as part of their visa and relocation process. Furthermore, the cultural and linguistic environment in the UAE can be more accommodating for Arab-speaking engineers and managers, which reduces the typical language and communication barriers faced in English-dominant markets like Australia. Additionally, the high proportion of migrant workers in the UAE construction industry creates a more familiar and accessible environment for newcomers.

4.2.3.2 Secondly, regarding job mobility in the construction sector, it was generally observed that professionals in Queensland tend to change employers more frequently than their counterparts in Abu Dhabi. Several contextual factors explain this trend. In Australia, the freedom of employment is not tied to visa restrictions in the same way as it is in the UAE. Workers can switch employers without jeopardising their legal residency status, which gives them more flexibility in seeking better opportunities or improved working conditions.

In contrast, in Abu Dhabi, changing employers is often legally and logistically more complex due to the sponsorship model, where the employer is directly responsible for the worker's visa and residence status. This framework inherently discourages frequent job changes and promotes longer tenures with a single employer.

Moreover, geographic and infrastructural differences play a role in influencing employment dynamics. Australia's large size and decentralised population distribution mean that relocating to another city typically involves significant lifestyle and logistical adjustments. This may include long-distance moves that are not feasible for daily commuting, often necessitating a change of employer. Meanwhile, in the UAE—particularly Abu Dhabi—commuting is generally easier due to well-developed road networks, lower fuel costs, and shorter travel distances between urban and industrial areas, making it easier for professionals to remain with the same employer while accessing various sites.

Another contributing factor is the higher proportion of local workers in the Australian construction workforce. Local employees are less restricted in terms of mobility and may adopt a more fluid approach to career progression, moving between employers for better roles, locations, or compensation packages. In contrast, the UAE construction sector remains heavily reliant on migrant labour, which is governed by stricter contractual terms and employment continuity expectations.

4.2.3.3 In summary, the employment experiences in the two regions reflect both regulatory frameworks and cultural practices. Queensland presents more obstacles for migrants securing their first job but allows greater freedom in changing employers, while Abu Dhabi offers easier initial access to employment but with more constraints on job mobility due to its visa system and labour market structure.

4.2.3.4 Barriers to employment for migrant engineers:

A 2021 report from Engineers Australia, titled “Barriers to Employment for Skilled Migrant Engineers,” highlights a major issue: nearly 50% of skilled migrant engineers- specifically, 47% of those actively seeking an engineering role- are either unemployed or working outside the engineering profession. Further, over 60% of Australia’s engineering workforce are migrant-born, yet they disproportionately occupy non-engineering roles or are underutilized.

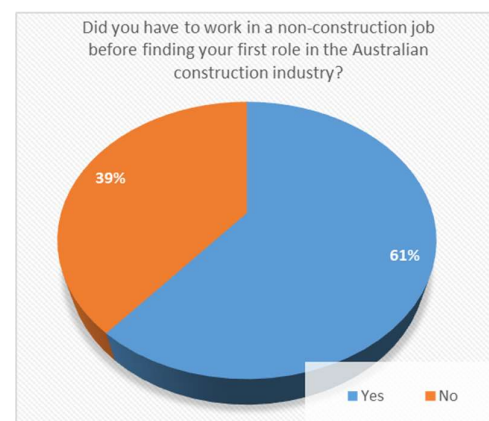
Key statistics:

- a. 47% of job-seeking migrant engineers are not working in engineering roles.
- b. Up to 60% of Australia’s engineering workforce are migrants, with a large portion under-employed.
- c. Nearly 50% of migrant engineers pivot to non-engineering jobs such as Uber driving, construction site roles, or administrative positions.

These findings closely mirror the results of this study, where many respondents- despite having qualifications- reported difficulty securing initial engineering roles and accepting non-engineering positions as a way to break into the local job market.

In our questionnaire, participants who worked in Queensland consistently reported early-career entry challenges, often taking non-engineering roles temporarily. This aligns with the Engineers Australia data showing that lack of local experience and weak professional networks are major barriers. Many survey respondents echoed that they “had to take what was available” just to get a foot in the door, even when their qualifications were not fully utilised.

This struggle is confirmed by a simple question I included in my survey, which requires no analysis, 61% of the migrants with construction related qualifications had to work in non-construction job before they manage to find their first construction job in Australia.



To address the persistent challenges faced by migrant engineers in securing engineering roles -despite holding adequate qualifications- several recommendations are proposed based on the findings of this study and reinforced by national data.

Firstly, there is a strong need to enhance local experience pathways. Structured programs like internships, job-ready training, and mentoring (such as those seen in initiatives supported by Engineers Australia) can provide new migrants with much-needed exposure and a foothold into the professional environment.

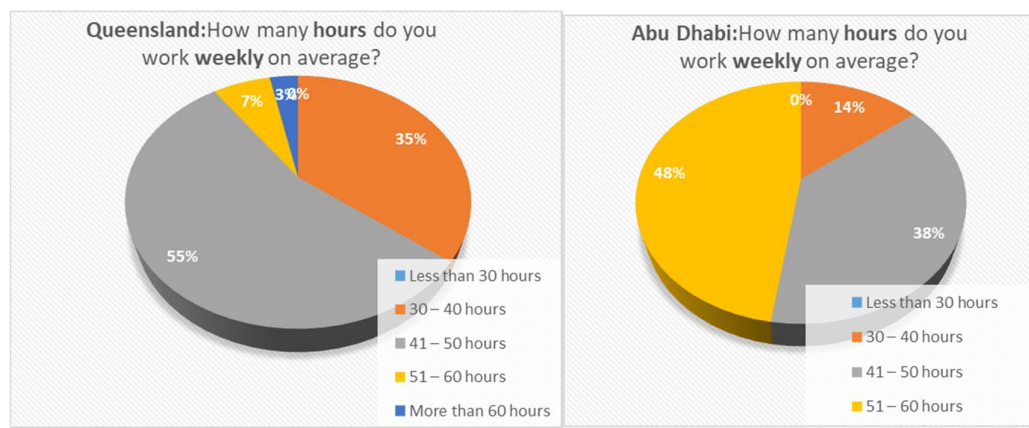
Furthermore, building professional networks is critical. Migrant engineers should be encouraged and supported to participate in local industry associations, networking events, and professional development workshops to broaden their contacts and visibility. In parallel, employers must be more open to recognising overseas qualifications and experience by addressing unconscious biases in recruitment processes. This can be achieved through awareness campaigns and industry dialogues that highlight the value and potential of internationally educated professionals.

Improving the credential recognition system is also essential, streamlining the qualification assessment and offering transitional support will help new arrivals build credible references and gain confidence in the local context.

Lastly, flexible employment initiatives, particularly those led by state or regional authorities, should be expanded nationwide to offer practical entry points into engineering careers. These combined actions would significantly reduce the current mismatch between skills and employment and enable migrant engineers to contribute meaningfully to Australia's infrastructure and development goals.

By aligning with national findings and directly reflecting survey responses, this study reinforces the need for structured support, active employer engagement, and accessible pathways to ensure migrant engineers in Queensland and Abu Dhabi can work to their full potential.

4.2.4. Time-at-Work Analysis:



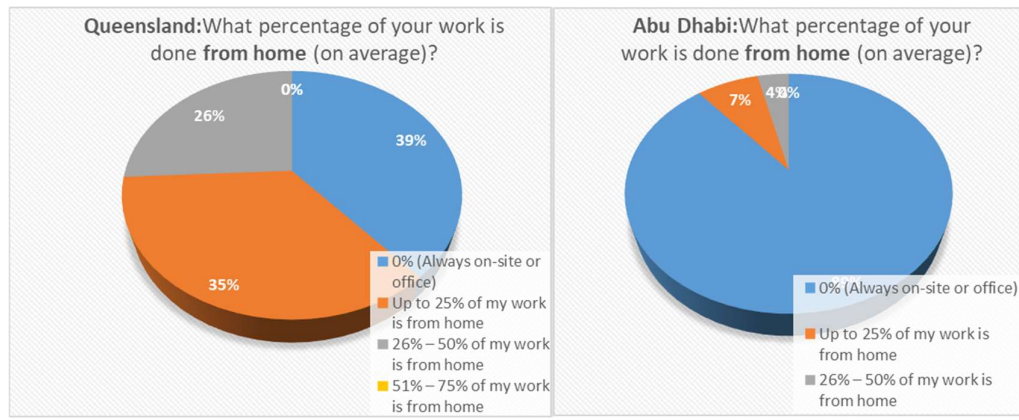


Figure 4.12: Time-at-Work results

The responses to the time-related questions in the survey show a clear contrast between work patterns in Central Queensland and Abu Dhabi. Participants who worked in Abu Dhabi reported longer average weekly working hours, while those in Queensland reported working fewer hours per week on average. At the same time, the percentage of work done from home was significantly higher in Queensland than in Abu Dhabi.

4.2.4.1 For the first question on weekly **working hours**, one key reason for this difference is the structure of the work week. In Central Queensland, most jobs -whether in the public or private sector- follow a five-day workweek, which supports a better work-life balance. In contrast, in Abu Dhabi's private sector, it is still common for employees to work six days a week, particularly in construction-related roles. This naturally leads to longer total hours spent at work. Additionally, there is often a cultural expectation in the UAE construction industry to stay longer on-site, especially in management and supervisory roles, which contributes to the higher reported working hours.

4.2.4.2 When looking at the percentage of **work done from home**, Queensland participants reported a much higher level of flexibility compared to those in Abu Dhabi. This can be attributed to several practical and cultural differences between the two regions.

In Australia, there is a growing trend of flexible work arrangements, including remote and hybrid work setups. This is supported by the nature of some construction-related tasks, such as design reviews, project planning, documentation, and communication, which can be performed remotely with the help of digital tools. Furthermore, higher childcare costs in Australia may lead some professionals -especially parents- to choose or request work-from-home arrangements to help balance work and family life.

In Abu Dhabi, on the other hand, working on-site is more common, and the general work culture leans towards in-person presence, particularly in construction roles. The healthcare system in the UAE is highly accessible, and services such as childcare, domestic help, and transportation are more affordable and widely available. This makes it easier for professionals to physically attend the workplace even when they have family responsibilities.

Transportation also plays a role. In Abu Dhabi, fuel prices are lower, and the country is more compact, making commutes more manageable and affordable. In contrast,

in Australia -especially in regional areas like Central Queensland- long distances and higher fuel costs can make commuting less convenient, leading some workers to prefer or negotiate work-from-home days.

4.2.4.3 **In summary**, while construction professionals in Abu Dhabi generally work longer hours and mostly from the office, their counterparts in Queensland tend to work fewer hours per week and enjoy more flexibility through working from home. These differences are shaped by regional work practices, family needs, infrastructure, and the nature of employment in both markets.

4.2.4.4 These findings are further supported by the **Global Life-Work Balance Index** published by (Remote.com,2025), which assesses countries across several factors such as average working hours, statutory leave, healthcare quality, and overall employee satisfaction. According to the 2024 index, Australia ranks 8th globally, indicating a strong emphasis on work-life balance, access to flexible work arrangements, and support for employee wellbeing. On the other hand, the United Arab Emirates ranks 40th, which, while lower in global comparison, is still considered a strong performer regionally. In fact, the UAE holds the second-highest position among Arab countries, just after Saudi Arabia, which highlights its progressive stance within the region.

It is important to recognise that the UAE continues to be a major global hub for professionals, including engineers, managers, and technical specialists from all over the world -including Australians- who are drawn to its dynamic market, competitive salaries, and tax-free income structure. These incentives make the UAE an attractive place to work despite the relatively higher average working hours reported. Conversely, it is uncommon for Emirati citizens to seek employment in Australia, primarily due to the strength and stability of their local job market, which offers abundant opportunities across various industries.

This global perspective adds further context to the findings of this study, where respondents from Queensland reported working fewer hours per week and spending a higher percentage of their time working from home compared to their counterparts in the UAE. These differences highlight how broader social structures, economic models, and cultural expectations influence working patterns in each region.

4.2.5. Women in construction business:

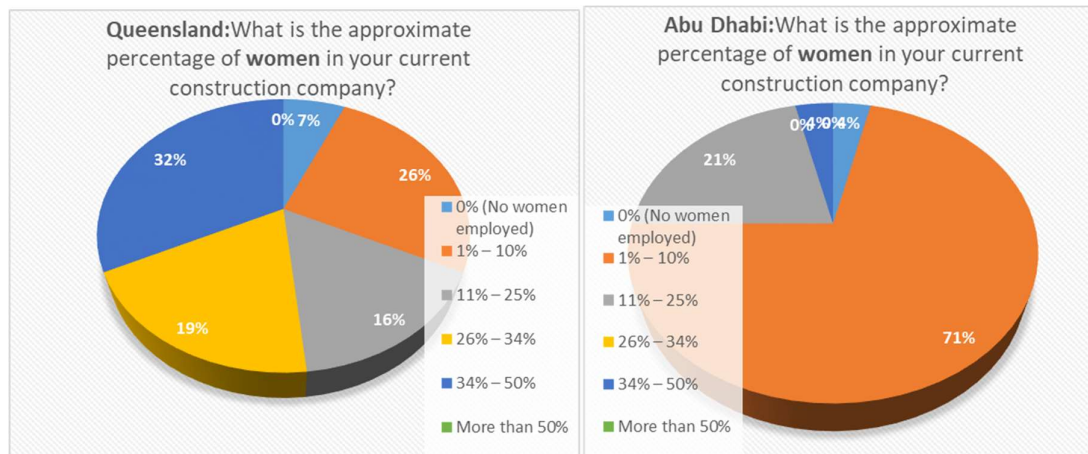


Figure 4.13: Women in construction business results

4.2.5.1 The results of the questionnaire indicate that Queensland has a significantly higher percentage of women involved in the construction sector compared to Abu Dhabi. This difference is shaped by a variety of cultural, economic, educational, and regulatory factors that influence gender participation in the industry.

In Queensland and broader Australia, there has been a strong and ongoing push to promote gender diversity in traditionally male-dominated fields, including construction. Government bodies, educational institutions, and industry associations such as NAWIC (National Association of Women in Construction) actively advocate for increasing female participation. Women are commonly seen in various roles, from on-site trades and engineering to project management, contracts administration, health & safety, and corporate leadership roles. Furthermore, the social perception of women working in manual or technical fields is far more accepted in Australia, where equal opportunity employment is not only encouraged but often legislated.

Additionally, Australia's education system and trade pathways have been designed to attract women into construction-related studies and apprenticeships. There are tailored scholarships, support networks, and flexible work arrangements that contribute to making the industry more accessible to women.

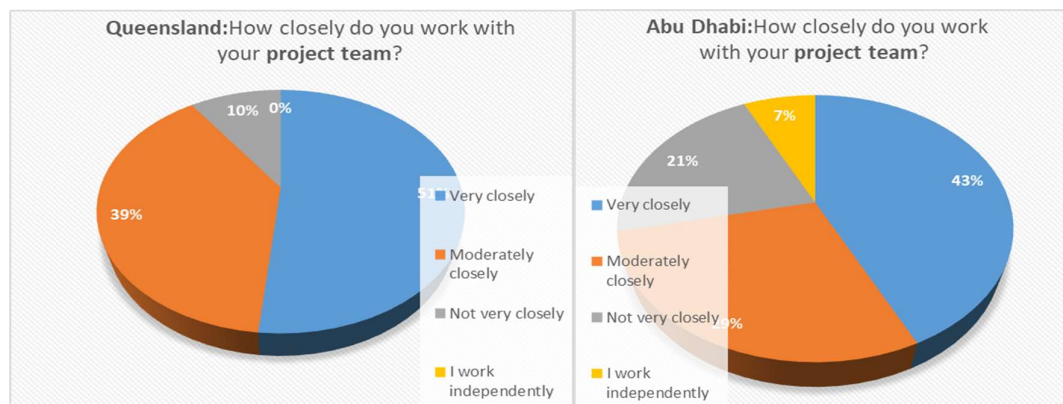
On the other hand, in Abu Dhabi and much of the Gulf region, the construction sector is still largely male-dominated, particularly in field and technical roles. This is largely due to cultural norms and the traditional gender roles that shape workforce participation. Women in the UAE construction industry are more commonly found in support functions, such as HR, administration, design, and documentation, rather than on construction sites or in engineering leadership positions. It's also less culturally common for women to work in physically demanding environments or to supervise large, male-dominated teams on construction sites.

That said, the UAE has made notable strides in empowering women in the workforce in recent years, including within engineering and architectural sectors. Government initiatives and national visions such as UAE Vision 2021 promote gender inclusion and support Emirati women entering STEM fields. However, female representation in construction remains relatively modest compared to Australia.

4.2.5.2 In contrast to the lower representation of women in the construction workforce, it is important to highlight that women in the UAE actually make up the majority of university graduates. According to the UAE Gender Balance Council, approximately 70% of all university graduates in the country are women, with significant numbers choosing science, technology, engineering, and mathematics (STEM) fields. This shows that the educational system in the UAE is highly supportive of female academic achievement, and many women are qualified to take on roles in various sectors, including construction.

However, despite these qualifications, the transition from education to employment in the construction sector appears to be limited. This gap can be attributed to several factors including cultural expectations, family obligations, societal norms, and the structure of the job market itself, which tends to favour male employment in physically demanding or site-based roles. Nevertheless, the strong educational foundation suggests that there is great potential for increasing female participation in the industry, especially as policies and societal perceptions continue to evolve across the region.

4.2.6. Communication trends analysis:



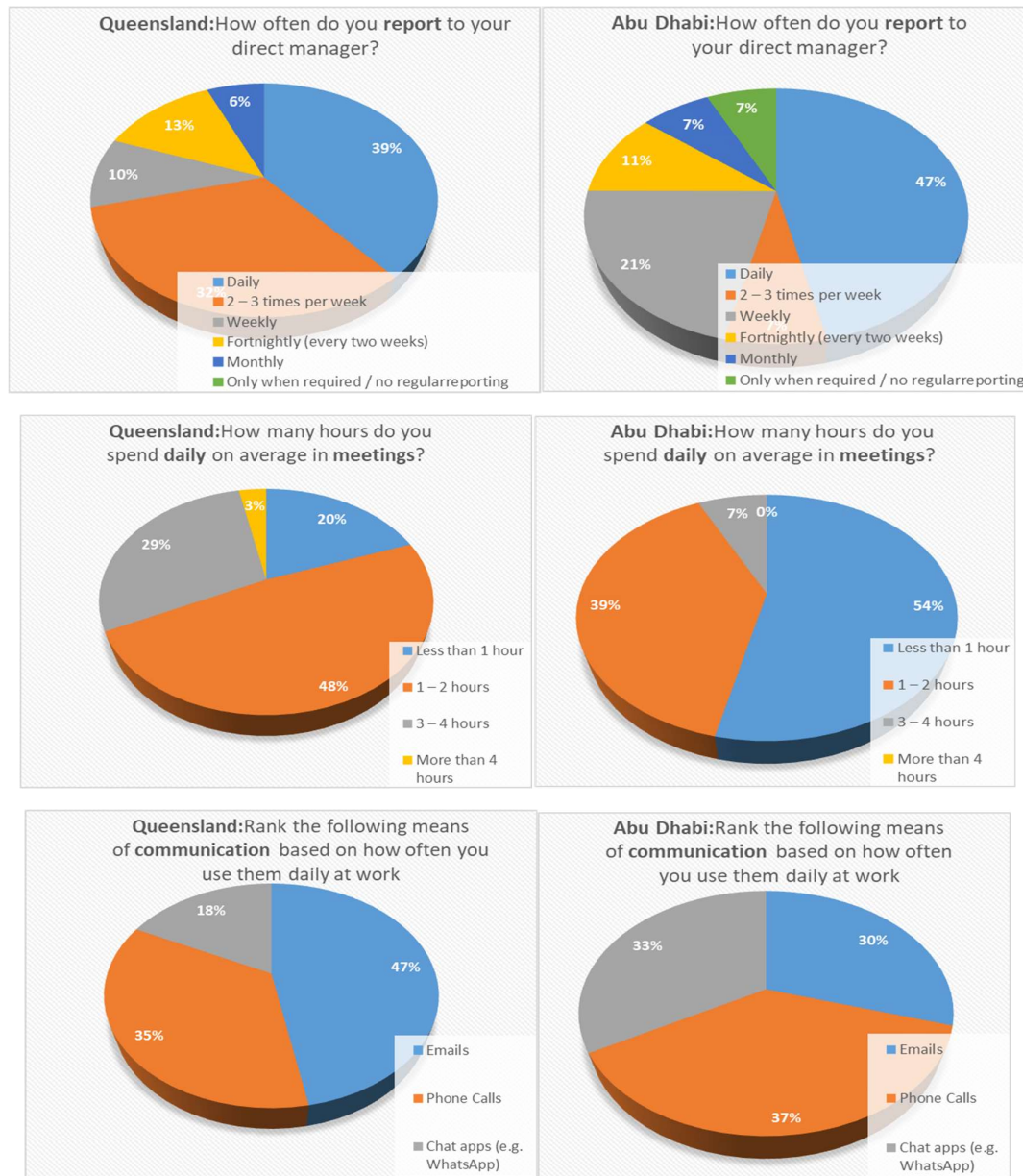


Figure 4.14: Communication trends

Effective communication is one of the most critical components in construction project success, as it directly influences coordination, decision-making, risk management, and team morale. The data collected from the survey reveals several notable differences in communication practices between construction professionals in Central Queensland (Australia) and those in Abu Dhabi (UAE), shaped largely by leadership styles, workplace culture, and organisational structures.

4.2.6.1 Team Interaction:

Participants working in Queensland reported closer daily collaboration with their project teams compared to their counterparts in Abu Dhabi. This could be attributed to flatter organisational hierarchies and participative leadership styles that are more common

in Australia. In such settings, decision-making is more decentralised, and team members are encouraged to engage in continuous dialogue, solve problems collaboratively, and take initiative without always requiring top-down instructions.

4.2.6.2 Managerial Reporting:

Conversely, reporting to direct managers is slightly more frequent in Abu Dhabi. This reflects the more hierarchical leadership models commonly seen in many Gulf-based organisations, where decision authority tends to remain with senior figures. Such structures promote clearer lines of accountability but may also lead to reduced autonomy among team members and less horizontal collaboration.

4.2.6.3 Meeting Duration:

A striking difference was observed in the number of hours spent in meetings, with respondents in Queensland reporting significantly more meeting time on a daily basis. This supports the trend of stronger intra-team communication and less reliance on managerial directives. However, there is a downside to this; some meetings including meetings with clients or external stakeholders, are repetitive or unproductive, taking time away from actual project execution. In contrast, professionals in Abu Dhabi reported more structured and time-efficient meetings, possibly due to stricter schedules and a higher value placed on formal timekeeping.

4.2.6.4 Preferred Communication Methods:

When it comes to communication tools, stark contrasts also emerge. Email is the dominant tool in Queensland, followed by phone calls and very limited use of chat apps like WhatsApp or Microsoft Teams. This aligns with Australia's formal business culture, where written documentation and traceability are often essential due to legal and contractual obligations.

In Abu Dhabi, however, chat applications are far more commonly used, particularly WhatsApp, which reflects the regional communication culture that values speed, accessibility, and informality. While phone usage is nearly equal in both regions, the UAE's preference for instant messaging creates a more casual, fast-paced exchange of information, though sometimes at the expense of traceable records.

4.2.6.5 Training and Implications:

These findings underscore the importance of communication training for professionals transitioning between the two markets. Migrant workers and engineers must learn to adapt their communication styles to fit the norms of their new environments. For instance, engineers moving to Australia may need to sharpen their professional writing and documentation skills, while those heading to the UAE might benefit from learning to navigate informal digital channels effectively while maintaining professionalism.

Ultimately, construction professionals must recognise that communication is not just about exchanging information, it's about understanding roles, expectations, and cultural

sensitivities. Tailoring communication practices to the market environment can significantly improve efficiency, reduce misunderstandings, and foster stronger working relationships.

4.2.7. Resources analysis:

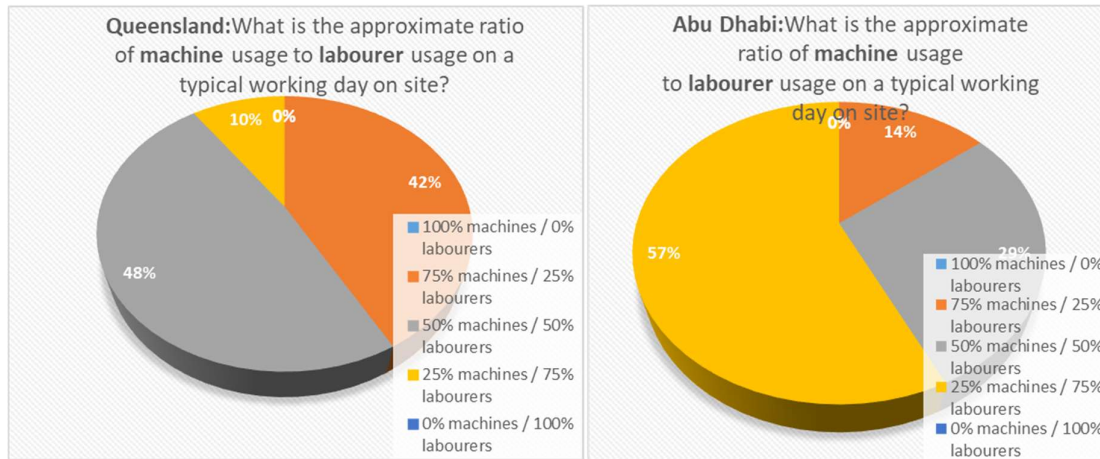


Figure 4.15: Resources analysis results

One of the most telling indicators of how construction projects are executed across different regions lies in the ratio of machine usage to manual labour. The responses collected from this study reveal a significantly higher reliance on machinery in Central Queensland compared to Abu Dhabi. This variation is influenced by several structural, economic, and sector-specific factors that reflect broader differences between the two markets.

4.2.7.1 Labour vs Machine Ratio:

In Queensland, construction sites report a much higher machine-to-labourer ratio, meaning that machines are more frequently utilised in day-to-day activities than manual labourers (excluding machine operators). In contrast, in Abu Dhabi, while machinery is certainly used, the ratio remains more balanced, with a greater presence of manual labour on-site.

4.2.7.2 Cost Considerations:

One of the key drivers behind this disparity is the high cost of labour in Australia, particularly in Queensland. With hourly wages being significantly higher, construction companies are economically motivated to invest in machinery that can replace or reduce the need for large numbers of workers, especially for repetitive or heavy-duty tasks. In comparison, the UAE has a more affordable labour force, largely composed of migrant workers from countries with lower income expectations, which makes manual labour a more cost-effective option in many cases.

4.2.7.3 Project Type and Sector Influence:

Another critical factor is the nature of the construction sectors in both regions. Abu Dhabi's construction landscape is heavily focused on residential buildings and high-rise

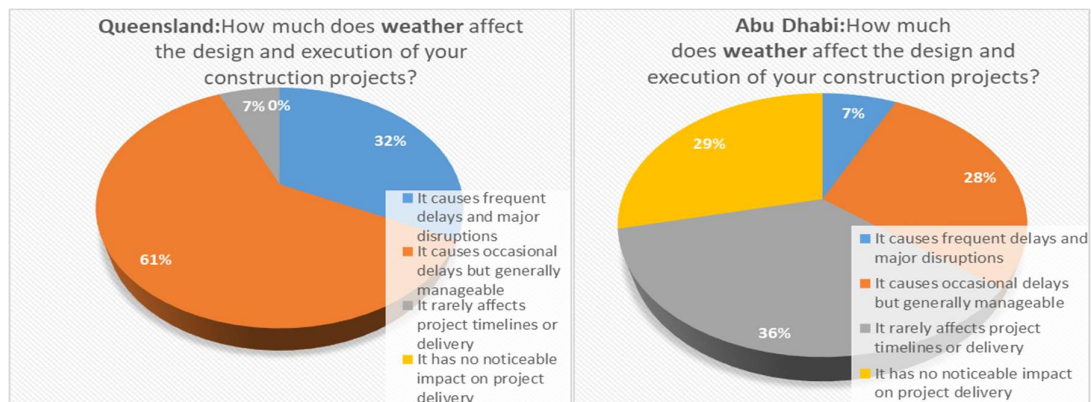
urban developments, which often require more detailed finishing work and therefore rely more on manual labour. On the other hand, Central Queensland has a significant share of industrial and mining-related construction, where large-scale earthmoving, excavation, and processing infrastructure necessitate the use of heavy machinery. These projects inherently demand fewer labourers on the ground and more specialised operators for equipment.

4.2.7.4 Workforce Availability and Skills Gap:

A final and important contributor is the shortage of skilled and general construction labour in regional Queensland. Several industry reports and workforce studies have pointed out that employers often struggle to recruit and retain sufficient manual labour, particularly in remote or rural areas. This scarcity drives contractors to rely more heavily on machinery as a means of keeping up with project schedules and reducing dependence on unpredictable labour supply.

4.2.7.4 Overall, the higher reliance on machinery in Queensland reflects a strategic response to local economic, workforce, and industrial conditions. It highlights how resource deployment decisions are shaped not only by project needs but also by broader market dynamics, and underscores the need for engineers and managers to be aware of these contextual factors when planning or transitioning between different construction environments.

4.2.8. Weather and Environmental Control Analysis:



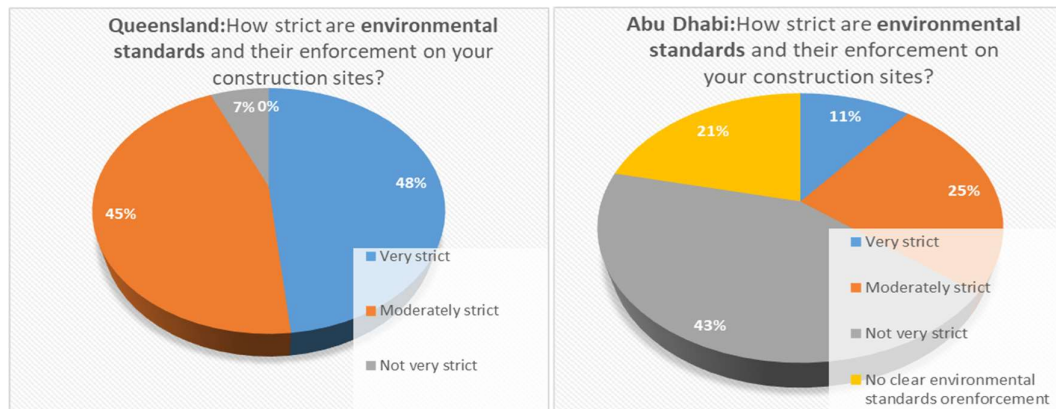


Figure 4.16: Weather and Environment results

The influence of weather and environmental regulations on construction practices varies significantly between Central Queensland and Abu Dhabi, and this is strongly reflected in the responses to the questionnaire. In Queensland, weather conditions play a far more significant role in both the design and execution of construction projects. This is largely due to the region's exposure to oceanic weather systems, frequent rainfall, and a diverse climate influenced by proximity to the Great Barrier Reef, river systems, and agricultural lands.

Queensland, particularly in areas like Rockhampton in Central Queensland -known as the beef capital of Australia- has extensive farming and cattle industries, meaning environmental controls are not only applied to construction but to surrounding ecosystems, waterways, and sediment control as well.

The average annual rainfall in Queensland is significantly higher than in Abu Dhabi, with Rockhampton averaging around 800–1000 mm per year compared to Abu Dhabi's mere 50–100 mm. These conditions require developers in Queensland to consider water drainage, flooding, and erosion control. As a result, construction designs often include bio-basins, sediment fences, and other water-sensitive urban design features. It's estimated that environmental control requirements can amount to up to 20% of the total development cost in some Queensland projects. Agencies such as Healthy Waterways Australia and Fitzroy Basin Association play a vital role in ensuring these environmental standards are upheld, further strengthening Queensland's regulatory framework.

Environmental standards in Queensland are not just strict, they are rigorously enforced. This is especially true in environmentally sensitive industries such as mining, where managing hazardous materials, tailing dams, and rehabilitation is legally mandated. These factors contribute to the higher cost of compliance but also reflect a strong societal and governmental commitment to sustainability and environmental stewardship.

In contrast, Abu Dhabi's weather is primarily hot, dry, and stable. While sandstorms and extreme temperatures pose challenges, the overall impact on design and execution is somewhat limited in comparison. One mitigating factor is the midday break rule enforced by Abu Dhabi Municipality, which prohibits outdoor work from 12:30 PM to 3:00 PM during peak summer months. While this helps reduce health risks, it also introduces logistical challenges that can lead to project delays, increased costs, and frequent contract

disputes over time extensions due to unworkable conditions in both areas. However, because many building projects are enclosed and air-conditioned, the direct impact on indoor construction is less severe.

Furthermore, Abu Dhabi's closed gulf environment results in fewer water management complications than Queensland. Environmental enforcement in UAE, especially for general construction (excluding the oil and gas industry), is historically considered more flexible. However, this has been shifting in recent years. Studies such as "Barriers to Implementing Environmental Sustainability in UAE" and the "JLL MENA UAE Construction Market Intelligence Q1 2024" report highlight that the UAE has begun to adopt more proactive environmental strategies. These include green building initiatives and sustainability certifications as part of Vision 2030 goals. Despite the positive direction, implementation and enforcement vary across project types and locations and are not yet as embedded in project delivery as they are in Queensland.

A notable example of the UAE's commitment to environmental sustainability is Masdar City in Abu Dhabi. Launched in 2008, Masdar City is one of the world's most ambitious urban sustainability projects. Designed to be a low-carbon, low-waste, and energy-efficient urban environment, the city incorporates renewable energy sources, sustainable building materials, and smart technologies to minimise environmental impact. The development serves as a living laboratory for green innovations, with features such as solar farms, electric transport systems, and buildings designed to reduce energy and water consumption. Although the project has evolved over time and faced some delays, it continues to represent the UAE's growing investment in sustainable urban planning and its potential to influence mainstream construction practices across the Emirates. Including Masdar City in this study reflects how environmental priorities are increasingly integrated into Abu Dhabi's future vision, aligning with global sustainability standards.

Another factor worth noting is the variety and availability of environmental products and services in the Australian market. Queensland offers a wider range of environmentally friendly construction materials and practices, from recycled aggregates to passive solar design systems. The market has matured alongside growing regulatory and community expectations.

While this research did not investigate the oil and gas sector in Abu Dhabi -which is known for its highly advanced environmental controls and international compliance standards- it's important to distinguish that typical civil construction projects in Abu Dhabi do not operate under the same intensity of environmental scrutiny.

In conclusion, Queensland's construction sector is more heavily influenced by natural weather systems and enforced environmental regulations, contributing to higher costs and design complexity. Meanwhile, Abu Dhabi's environment, while less disruptive in terms of rainfall and ecosystem complexity, presents different constraints, such as extreme heat and evolving regulatory practices. The comparison indicates that each market demands a tailored approach to environmental management, an insight further validated by this research's survey data and previous industry studies.

4.2.9. Construction laws and municipal performance analysis:

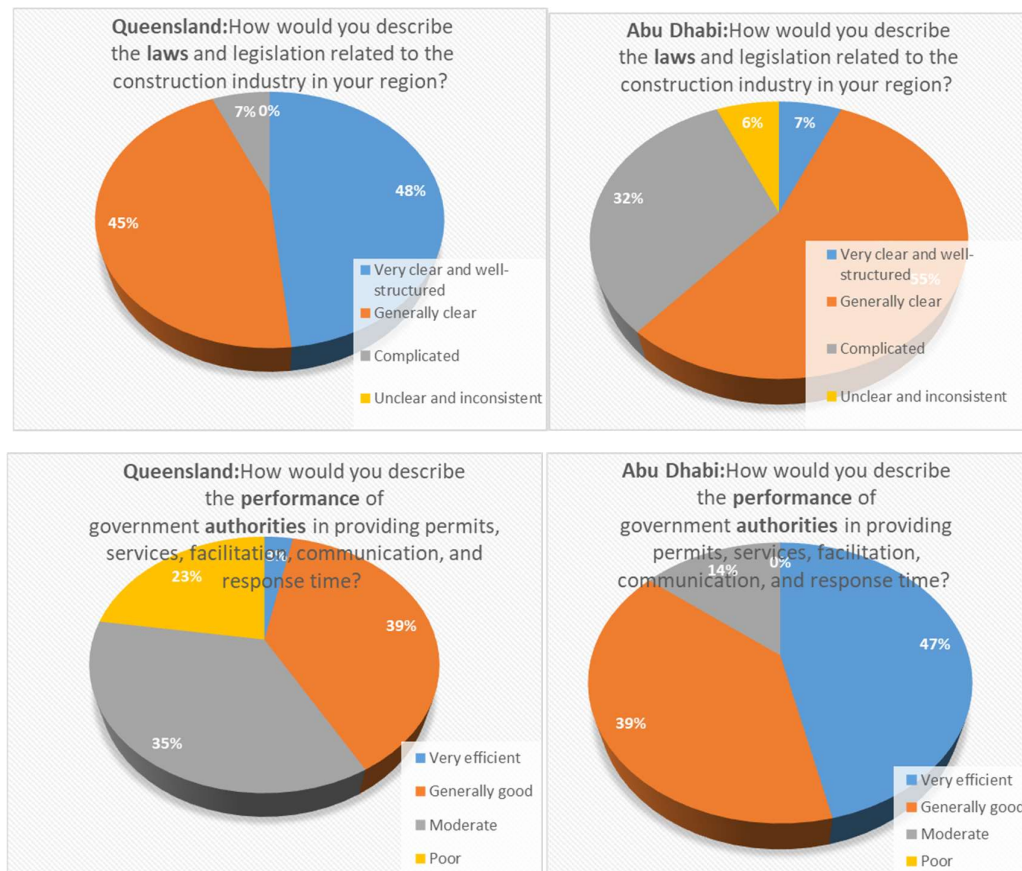


Figure 4.17: Laws and municipal performance results

The findings from the survey indicate a clear and significant difference in participants' satisfaction regarding construction laws and municipal authority performance between Abu Dhabi and Central Queensland. Participants who had worked in Abu Dhabi overwhelmingly rated the construction legislation as clear, efficient, and supportive, while also commending the prompt and professional performance of municipal bodies in handling permits, inspections, and development facilitation. In contrast, responses from Central Queensland participants reflected greater dissatisfaction, highlighting delays, ambiguity in regulations, and fragmentation across local councils.

One of the most striking structural differences contributing to this contrast is the governance model. Abu Dhabi operates under a centralised system with a small number of highly coordinated government departments managing urban development and construction oversight. This centralisation allows for faster decision-making, uniform policies, and consistent communication channels across all areas of the Emirate. On the other hand, Queensland is governed by 77 local councils, each with its own policies, workflows, and administrative procedures. While Queensland is geographically around 1,700 times larger than Abu Dhabi, its population is only about 1.4 times higher, meaning there is a disproportionately high number of decision-making bodies managing a relatively dispersed population; making it much harder to maintain streamlined and uniform services.

This structural fragmentation in Queensland often leads to slower permit approvals, lack of inter-council standardisation, and increased complexity for construction professionals, particularly those operating across council boundaries. Additionally, unlike Abu Dhabi, where interdepartmental coordination is routine, Queensland’s municipal system can suffer from siloed decision-making and varying levels of service quality, depending on the local authority involved.

Previous research, including the comparative study “How Forensic Quantity Surveyors Impact Construction Dispute Resolutions: A UAE, KSA, Australia Comparison”, reinforces these findings. It highlights how the UAE, particularly Abu Dhabi, has successfully reduced construction disputes and project delays through legislative clarity and government efficiency. This is further bolstered by smart government applications, digitised workflows, and a strong service orientation toward public and investor needs. In Queensland, meanwhile, participants noted a more conservative approach, where regulatory processes are often slower, and political influences or community-driven opposition can significantly delay project approvals.

Another factor worth noting is the modern nature of the UAE’s urban planning and infrastructure systems. As a younger country (founded in 1971), the UAE had the advantage of designing its municipal systems with future scalability, integration, and digital transformation in mind, which contrasts with Queensland’s more historically layered development that can be harder to reform or modernise.

In practical terms, these systemic differences directly affect construction project staging and delivery timelines. While Queensland’s democratic and community-centred planning framework supports public consultation and long-term resilience, Abu Dhabi’s streamlined, centralised model allows for faster mobilisation, fewer procedural hurdles, and reduced administrative risk, offering a smoother operating environment for construction professionals, especially those dealing with strict time or budget constraints.

4.2.10. Safety regulations and standards analysis:

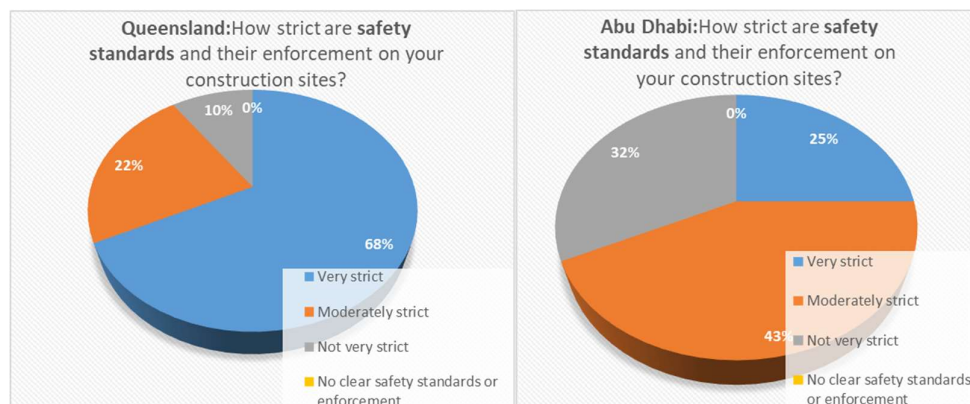


Figure 4.18: Safety regulations and standards results

The survey results clearly indicate that the implementation and enforcement of safety standards on construction sites are generally more rigorous in Queensland compared

to Abu Dhabi. While both regions legally mandate safety compliance, the practical application and cultural prioritisation of safety in Queensland tend to be more stringent and embedded in daily site operations. One of the key reasons for this is the comprehensive regulatory framework established in Australia, particularly through institutions like Safe Work Australia and Workplace Health and Safety Queensland, which enforce high standards and carry out routine audits, inspections, and strict penalty systems for violations. This has created a strong safety culture where both employers and workers are well-informed, trained, and held accountable.

Another contributing factor is the legal liability structure in Queensland. Construction companies are often under greater scrutiny from regulators and insurance providers, which drives them to invest heavily in preventative measures, detailed safety documentation, training programs, and site-specific risk assessments. Additionally, unions and worker advocacy bodies play a significant role in raising concerns and ensuring compliance, adding another layer of oversight.

In contrast, while Abu Dhabi has made substantial progress in enhancing construction site safety, particularly in government-led mega projects and high-profile developments, the implementation of safety standards can be inconsistent, especially in the private sector and smaller projects. Factors such as language barriers, workforce diversity, and cultural perceptions of risk can hinder the uniform application of safety rules. Moreover, due to the dominance of migrant labour in the UAE, many workers may lack prior formal training in safety procedures or may come from backgrounds where workplace safety is not emphasised, requiring companies to invest more in education and supervision.

That being said, the UAE has made serious efforts to improve its safety record. Regulations such as the Midday Work Ban (which prevents outdoor work during peak heat hours in summer) and mandatory site safety training programs for labourers have shown positive effects. However, based on survey feedback and observed site practices, Queensland still demonstrates a more systematic, comprehensive, and deeply integrated approach to construction safety.

Ultimately, this difference in safety implementation reflects broader themes of regulatory maturity, workforce composition, and cultural attitudes toward occupational health. These factors directly influence construction project delivery, as a higher standard of safety not only reduces incidents and liability but also enhances morale, productivity, and project sustainability over time.

4.2.11. Projects uniqueness and documents analysis:

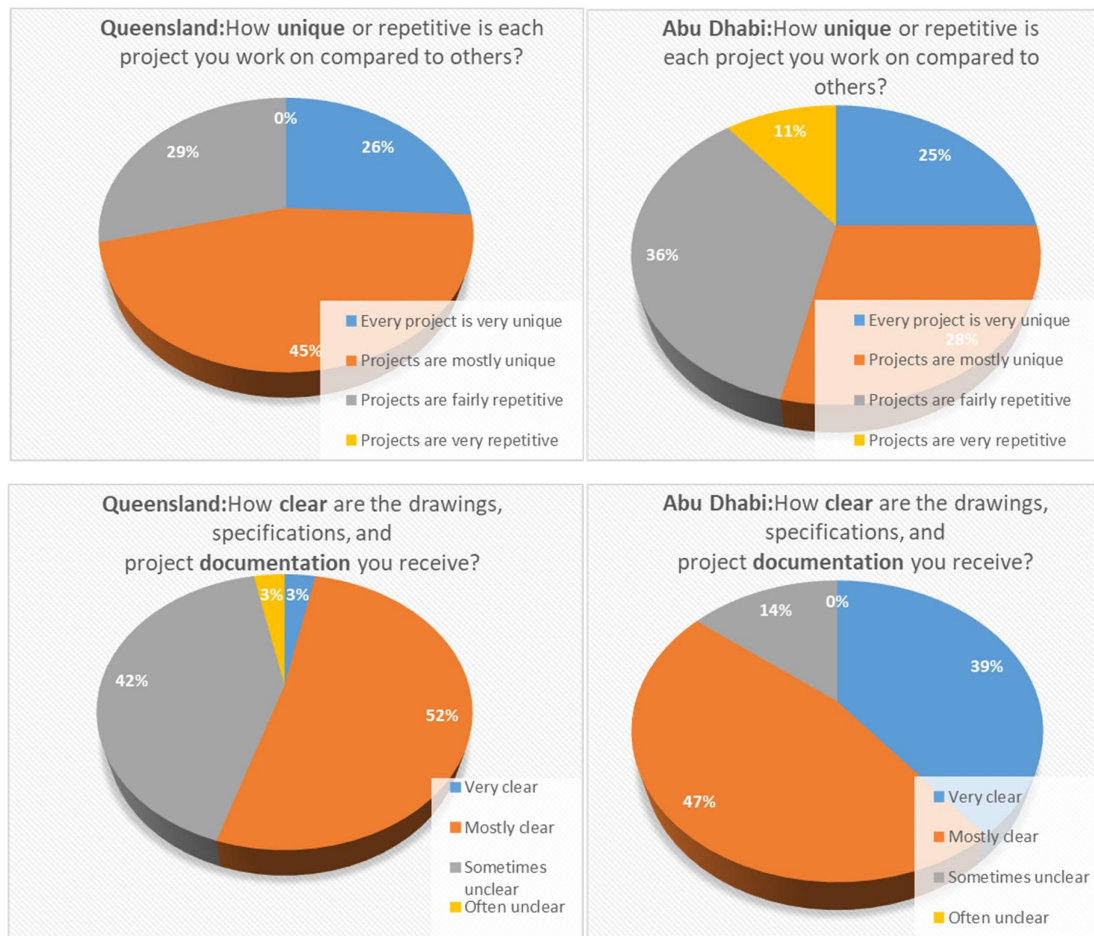


Figure 4.19 Projects uniqueness and documents results

The responses to this section's questions reveal interesting contrasts between Queensland and Abu Dhabi in terms of project uniqueness and the clarity of project documentation.

Starting with project uniqueness, the data suggests that projects in Queensland tend to be more unique and varied compared to those in Abu Dhabi. One of the major reasons behind this is the broad geographic spread and diversity of construction sectors in Central Queensland. The region includes a wide mix of infrastructure, such as transport corridors, mining operations, energy generation (including coal and renewables), water systems, and regional urban development. This diversity means that each project often comes with different environmental conditions, terrain, stakeholders, and end uses, which naturally increases the degree of variation between projects.

In contrast, Abu Dhabi's construction projects, especially in the private sector, are more standardised and repetitive in nature, often focused on residential developments, and commercial towers. The urban planning model in the UAE is highly centralised and master-planned, with many similar buildings constructed within a specific development or zone. Additionally, the smaller geographic footprint of Abu Dhabi compared to Queensland

reduces the variability in site conditions, which contributes to a more standardised approach.

Regarding the second question on clarity of drawings, specifications, and project documentation, Abu Dhabi was rated significantly higher by participants. This finding is consistent with earlier observations related to legal clarity, regulatory centralisation, and municipal performance. In Abu Dhabi, authorities such as the Department of Municipalities and Transport (DMT) impose strict requirements for the documentation submitted and approved, and all stakeholders generally follow a uniform documentation standard. Drawings are typically customised for each project, reviewed by government agencies before execution, and stored in centralised systems. This ensures high-quality and project-specific documentation that aligns with local laws, climate, and engineering conditions.

In Queensland, while the documentation quality is generally good, respondents indicated a greater reliance on standard drawings and generic templates, especially in local government and infrastructure projects. This practice works well in many cases but can sometimes lead to ambiguity or the need for additional site-specific clarifications during project execution. The higher rate of project variation in Queensland also means documentation must often be adapted or modified post-tender, which can affect its clarity or consistency across stakeholders. Furthermore, the fragmented nature of governance may result in inconsistent documentation standards and practices across regions.

These differences tie directly to broader findings in this study, particularly the lower dispute rates in the UAE, which can be partially attributed to clearer project documentation and stronger pre-construction regulatory checks. The nature of the projects themselves also plays a role, larger, more repetitive developments in Abu Dhabi allow for more refined templates and documentation systems, whereas Queensland's decentralised and diverse projects demand more flexible but sometimes less standardised documentation.

In summary, Queensland projects show higher uniqueness but sometimes struggle with documentation clarity, while Abu Dhabi projects benefit from more consistent and clear documentation due to centralised regulations and standardised processes. These dynamics reflect each region's broader approach to planning, regulation, and project delivery, and they contribute significantly to how efficiently and predictably construction projects are executed.

4.2.12. Materials, Supply chain, and economics analysis:

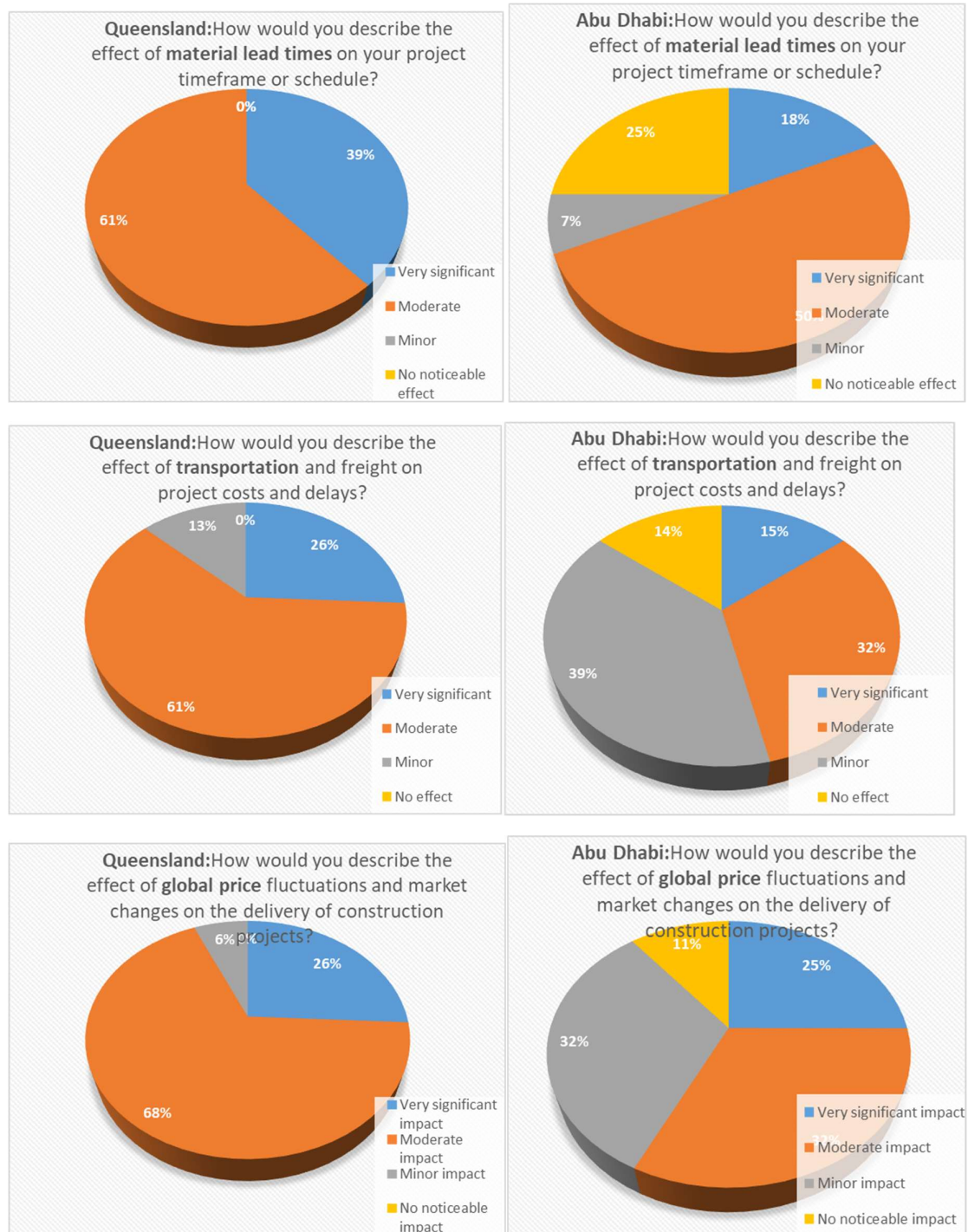


Figure 4.20: Materials, Supply chain, and economics results

The analysis of responses concerning material lead times, transportation impact, and global market fluctuations reveals key operational and economic differences between Central Queensland and Abu Dhabi, while also showing some shared macroeconomic stability.

4.2.12.1 Material Lead Times

Respondents indicated that construction projects in Central Queensland are significantly more affected by material lead times than those in Abu Dhabi. This disparity can be explained by several interrelated factors. Firstly, Queensland's construction sector is more geographically dispersed, serving a much wider area with less population density and fewer centralised suppliers. This means that materials often must be transported over long distances, sometimes from interstate or even overseas, leading to considerable delays.

In contrast, Abu Dhabi benefits from a more compact geography, a dense supplier network, and better-developed supply chain logistics. As a regional business and construction hub, Abu Dhabi hosts many international and local material suppliers, which allows for shorter lead times and quicker sourcing. The use of night shifts, six-day workweeks, and 24/7 logistics infrastructure contributes to faster turnaround in manufacturing and delivery. For example, precast concrete pipes -a commonly delayed item in Queensland- might take several weeks to arrive in Abu Dhabi, while in Queensland, the wait could extend to several months due to backlog, distance, and limited production capacity.

Additionally, labour and service costs in the UAE are comparatively lower, allowing contractors and suppliers to stockpile or pre-manufacture materials without heavily impacting overheads. Repetitive project types (as highlighted earlier in the project uniqueness analysis) further streamline procurement since standardised items can be ordered in bulk and used across multiple developments. In contrast, Queensland's project diversity and customisation require more specific orders, which are less efficient for producing and transport.

4.2.12.2 Transportation and Freight Costs

Similar patterns emerged regarding the effect of transportation and freight on project costs and delays. Once again, Central Queensland is more heavily impacted. The vast landmass, lower population density, and limited regional freight infrastructure pose challenges to efficient material movement. In remote and rural project areas, freight costs often form a substantial portion of the total project budget, and any disruption to transport - due to weather, fuel costs, or scheduling- can lead to cascading delays.

Conversely, Abu Dhabi's compact urban landscape, highway network, and lower fuel prices make transportation far more predictable and affordable. The smaller national area allows for quicker and more flexible deliveries, with fewer weather-related interruptions. Additionally, the government's investment in logistics infrastructure, including ports, road networks, and customs facilitation, ensures that material transportation remains efficient. The existence of free zones and centralised customs systems further accelerates the process, reducing the bureaucratic burden on contractors.

4.2.12.3 Global Market Fluctuations

Interestingly, when asked about the impact of global price fluctuations and market changes, the results showed a moderate but similar level of impact in both regions. This suggests that both Australia and the UAE have relatively stable and resilient economies, at least in the context of construction procurement. Global events like COVID-19, oil price

changes, or geopolitical conflicts do have effects, but both countries have financial systems and procurement policies that buffer immediate shocks.

This parity can be attributed to strong currency performance, solid trade agreements, and well-established sourcing strategies. In Australia, government procurement and forecasting models help absorb sudden price hikes. In the UAE, the centralised control and strong ties with global suppliers ensure that material prices are more manageable, even during times of volatility. However, while the impact level may be comparable, the mechanisms each region uses to handle fluctuations differ, reflecting their distinct market models and governance systems.

4.2.12.4 In summary, Central Queensland faces more logistical and cost-related challenges in material procurement and transportation due to its size, lower population density, and higher dependence on interstate or international suppliers. Abu Dhabi, on the other hand, benefits from a more efficient, centralised, and investor-focused construction environment, where supply chain operations are faster and more competitive. Despite these differences, both regions demonstrate a comparable level of resilience when it comes to handling global market volatility — a reflection of their economic stability and mature construction sectors.

4.2.13. Time and Cost overrun analysis:

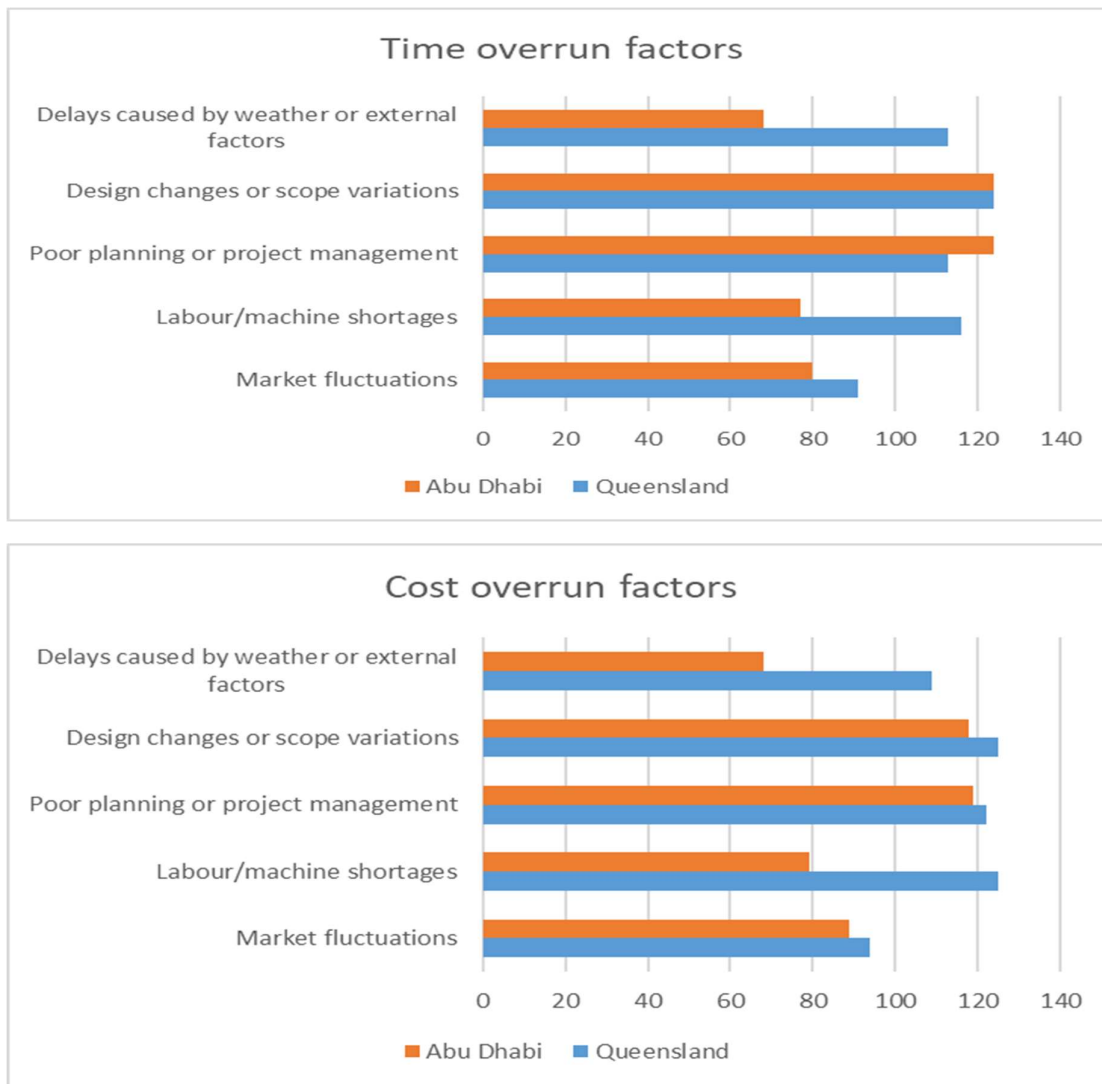


Figure 4.21: Time and Cost overrun results

Construction projects, whether in Central Queensland or Abu Dhabi, frequently encounter time and cost overruns due to a range of internal and external factors. In this study, participants were asked to rank the most common causes of project delays and cost overruns based on their experiences. Interestingly, the results revealed very similar trends across both dimensions -time and cost- which gives strong weight to the consistency of challenges faced across different project types and locations.

In both time delays and cost overruns, three causes emerged with very close levels of impact across Queensland and Abu Dhabi: market fluctuations, design changes or scope variations, and poor planning or project management. This consistency suggests that these three factors are core global challenges in project delivery, regardless of market maturity, regional governance, or construction environment. They highlight the need for better early-stage planning, tighter scope control, and more proactive risk management practices in both regions.

However, two areas showed a significant divergence between the two regions, and these differences were identical for both time and cost outcomes, labour and machinery shortages, and weather or external conditions.

In Queensland, both labour and machinery shortages were seen as a much greater cause of delay and cost impact than in Abu Dhabi. This aligns with the earlier Resources Analysis, which outlined how Queensland's higher labour costs, regional skill shortages, and reliance on large-scale machinery in sectors such as mining and infrastructure make it more vulnerable to resource availability issues. In contrast, Abu Dhabi's access to a large pool of migrant workers and more competitive equipment markets contributes to smoother resource management, thereby reducing the disruption caused by such shortages.

Similarly, weather-related delays were identified as a substantially higher concern in Queensland. This is in line with the comprehensive Weather and Environmental Analysis, which highlighted the impact of tropical storms, rainfall, sediment control, and broader environmental constraints across Queensland's vast geography. In Abu Dhabi, the dry and consistent climate results in fewer weather-induced delays, and work-hour regulations are already embedded in planning and contractual frameworks to manage extreme heat, limiting their impact on project timelines.

The repetition of these two differentiating factors (labour/machinery shortages and weather-related disruptions) across both time and cost questions, strongly reinforces the earlier findings of this research. It confirms that these are not isolated concerns, but rather systemic differences between the two markets that directly influence project performance.

Ultimately, this analysis adds further depth to the theoretical model of this study, validating that while some challenges are universal, others are highly dependent on regional market characteristics, resource structures, and environmental context. Understanding these nuances is essential for adapting project delivery strategies, setting realistic expectations, and reducing disputes across diverse construction markets.

4.2.14: Brief advisory for migrants

The results require no analysis and included for review.

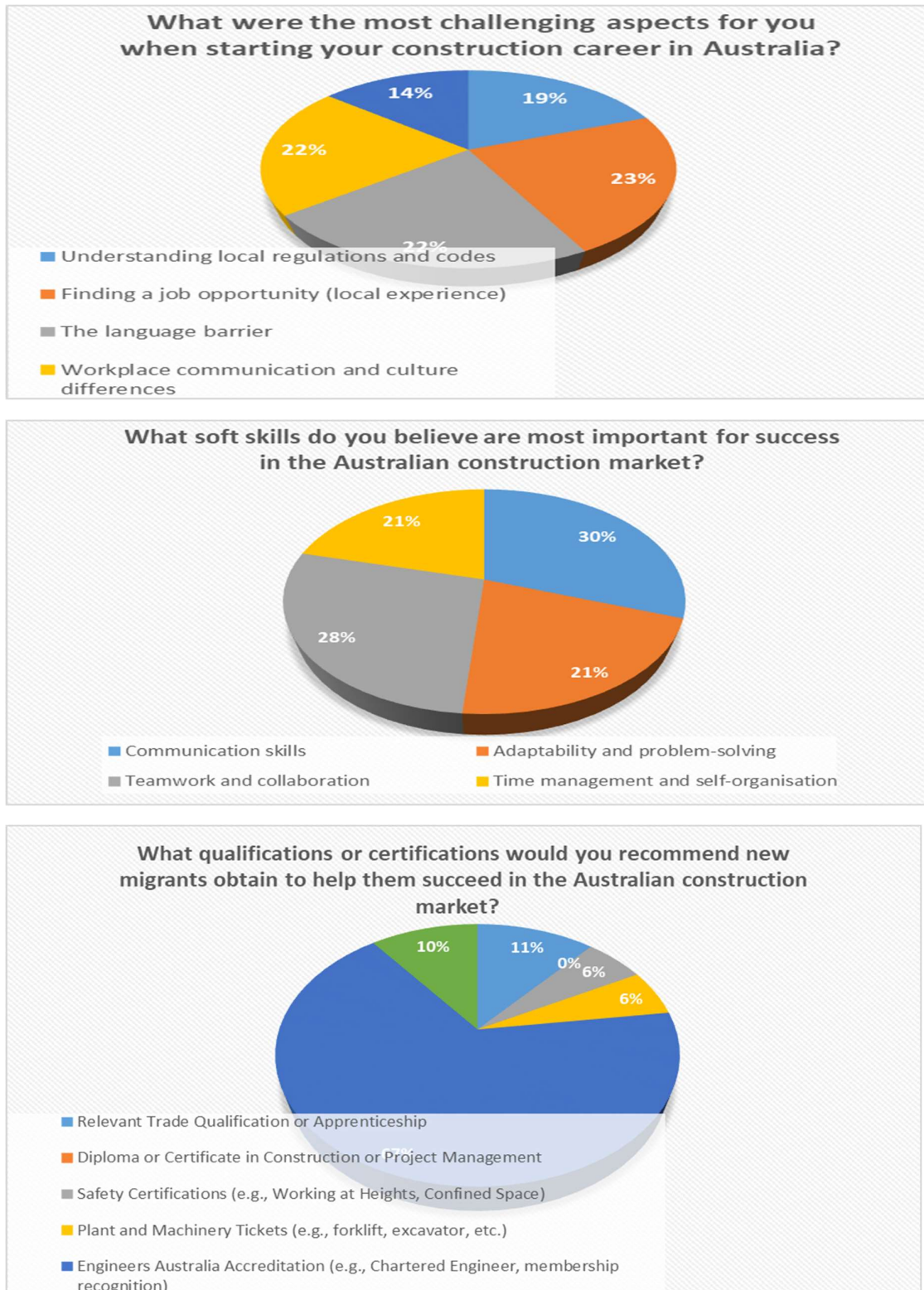


Figure 4.22: Brief advisory for migrants

4.3. Revising Research hypotheses

At the outset of this research, a set of hypotheses was proposed to guide the exploration of differences and similarities between the construction industries in Central Queensland, Australia, and Abu Dhabi, UAE. Now that the survey results and supporting analyses have been completed, it is appropriate to revisit each hypothesis to determine whether it was supported, contradicted, or partially affirmed by the evidence gathered.

1. The construction industry is significantly different in the UAE compared to the construction in Central Queensland.

This hypothesis is **supported**. The survey results clearly revealed differences across multiple areas including municipal processes, environmental regulations, documentation clarity, workforce structure, and general project delivery practices.

2. While the main stages outline is generally the same in both countries, there are substantial differences in the way the stages are carried out in practice.

This hypothesis is **confirmed**. Although the major phases of construction are structurally similar, the way they are implemented differs significantly, particularly in administrative procedures, team dynamics, and execution timelines.

3. The Australian construction market is more affected by the fluctuations in global material prices and interest rates compared to the UAE market.

This is **supported** by the findings. Participants from Queensland reported more frequent and severe impacts from global pricing and supply chain issues than those in Abu Dhabi, however the gap is not as big as anticipated.

4. The major factors contributing to projects' cost and lead times differ significantly between the two regions.

The results **validate** this hypothesis. Labour shortages and weather-related delays were more prominent in Queensland, while factors such as poor planning and design changes were similarly ranked in both regions.

5. Environmental requirements, standards and procedures are strictly enforced in Central Queensland compared to Abu Dhabi.

The **evidence strongly supports** this hypothesis. Queensland respondents reported stricter enforcement, higher environmental costs, and broader regulatory reach. Abu Dhabi, while making progress, still lags in enforcement consistency.

6. There are noticeable variations in gender and age distribution of the construction workforce between the two regions.

This hypothesis is **confirmed**. Queensland had a significantly higher percentage of women in construction, attributed to cultural factors, job diversity, and inclusive employment practices.

7. It is generally easier to enter the construction industry in Central Queensland compared to the UAE.

This hypothesis is **contradicted**. Survey results indicated that new migrants find it more difficult to enter the industry in Queensland due to local experience requirements and limited entry-level opportunities.

8. The construction sector plays a major role in driving other industries in both countries.

This was **not directly measured** in the survey, so **it cannot be confirmed or refuted**. However, various findings implied that construction remains a vital sector in both economies, especially through its impact on urban development and infrastructure.

9. Migrant construction experts moving from UAE to Australia are capable of handling the challenges of the Australian construction market.

This is **partially supported**. Many participants reported successfully transitioning between the two regions, particularly when equipped with prior experience, although barriers such as job entry remain challenging.

10. The different weather conditions in both regions enforces different approaches.

This hypothesis is **clearly supported**. The varied environmental and climatic conditions in Central Queensland and Abu Dhabi lead to distinct strategies in design, planning, and execution, particularly with regard to cyclone risks, rainfall, and temperature-related regulations.

11. The size of the regions and their population density play a direct role in influencing variation trends.

This hypothesis is **confirmed**. Central Queensland's vast area and decentralised governance contrast with Abu Dhabi's more centralised and streamlined systems, affecting everything from service delivery to regulatory enforcement.

4.4. Case Study 1: GIS Maps

Geographic Information Systems (GIS) play a vital role in modern construction planning and project delivery. Both Central Queensland and Abu Dhabi have adopted GIS tools to support infrastructure development, regulatory compliance, and spatial analysis.

In Australia, GIS integration is more widespread and deeply embedded in construction workflows, particularly due to the country's vast land area and the need for precise environmental and geospatial planning. Tools like Queensland Globe, Dial Before You Dig, and various interactive council maps are publicly accessible and widely used by professionals to identify underground services, zoning regulations, and terrain data. These tools are crucial in minimizing risks, preventing utility strikes, and ensuring compliance with local planning schemes.

Similarly, Abu Dhabi provides interactive municipal GIS platforms, offering comprehensive geospatial data relevant to developers and consultants. These systems include information on land use, transportation networks, utility corridors, and environmental zones. While the UAE is geographically smaller, the availability of high-quality GIS data supports its fast-paced development environment and contributes to more efficient permit processing and project coordination.

In both markets, the use of GIS enhances decision-making, streamlines communication between stakeholders, and promotes safer and more sustainable construction practices. However, the level of integration and reliance on GIS systems appears more advanced in Australia, driven by larger geographic diversity and broader decentralization across local governments.

4.5. Case Study 2: Professional Social Media in the Market, LinkedIn Trends and Usage:

The role of professional social media platforms, particularly LinkedIn, has grown significantly in the construction sector. In both Central Queensland and Abu Dhabi, LinkedIn is used by professionals and organizations to network, share updates, and recruit talent. However, the extent and manner of its usage vary notably between the two regions.

In Australia, especially in Central Queensland, LinkedIn is more commonly and actively used by companies and individuals alike. Beyond job searching, it serves as a platform for professional branding, showcasing project achievements, sharing insights, and staying updated with the latest industry trends. Employers in the Australian construction market frequently use LinkedIn to announce vacancies, company news, and thought leadership content. For individuals, maintaining a strong presence on LinkedIn is often seen as a mark of professional prestige and career development.

In contrast, while LinkedIn usage is also growing in Abu Dhabi, it is generally less embedded in daily professional practices. The platform is primarily used for job hunting or recruitment, with fewer companies using it to share regular construction-related updates or industry developments. This reflects broader cultural and organizational communication preferences in the region.

Overall, LinkedIn serves as a valuable tool in both markets but plays a more dynamic and influential role in Australia, where it contributes not only to employment opportunities but also to professional visibility and continuous industry engagement.

4.6. Recommendations:

4.6.1 Recommendations for the Abu Dhabi Construction Market

Based on the research findings, it is evident that Abu Dhabi offers an efficient regulatory environment, clear project documentation, and faster municipal procedures. However, there are key areas for improvement:

1. **Enhancing Work-Life Balance:** Although the UAE performs better than most of its regional peers, the work-life balance index remains considerably lower than Australia. It is recommended that authorities and employers consider further initiatives such as promoting flexible work arrangements and encouraging mental health support services in the industry.
2. **Boosting Project Uniqueness and Innovation:** Given that many projects in Abu Dhabi are repetitive in nature, particularly in residential developments, more encouragement could be given to innovative design, sustainable construction technologies, and tailored approaches that address changing environmental and social needs.
3. **Expanding Safety Training and Implementation:** While safety legislation exists, the actual on-site implementation can be inconsistent. Greater focus on safety training programs, regular site inspections, and stronger enforcement mechanisms can align field practices with international standards.
4. **Investing in Local Talent and Women Participation:** Although the UAE has a high rate of female graduates in engineering and technical studies, female representation on-site remains low. A more inclusive approach, backed by targeted recruitment policies and awareness campaigns, could help diversify the workforce and enhance project outcomes.
5. **Improving Documentation Clarity in Smaller Projects:** While large-scale projects in Abu Dhabi are typically well-documented, medium and small projects may benefit from standardized documentation frameworks that ensure consistency and reduce ambiguity.

4.6.2 Recommendations for the Queensland Construction Market

Queensland demonstrates strength in innovation, safety, and diverse project types. However, several areas need policy attention and structural improvement:

1. **Streamlining Municipal Services:** With 77 local councils managing various parts of Queensland, regulatory inconsistencies and slow permit processes remain a concern. Establishing a centralised digital system for approvals or encouraging regional councils to adopt best practices from each other can significantly reduce lead times and improve project delivery.
2. **Improving Workforce Entry Pathways for Migrants:** Survey results and industry studies (e.g. Engineers Australia) indicate that a large proportion of skilled migrants are unable to secure their first engineering job. Queensland should focus on mentorship, bridging programs, and clearer qualification recognition systems to assist qualified professionals in entering the market.

3. **Reducing Material Lead Times and Transport Delays:** Geographic scale and logistics continue to affect construction timelines. Supporting local manufacturing of key components, developing inter-regional freight corridors, and improving access to rail and port networks could reduce delays.
4. **Strengthening Environmental Efficiency:** Although Queensland leads in environmental compliance, the associated costs can burden small developers. Government subsidies or incentive schemes to adopt environmentally friendly solutions would promote compliance without compromising affordability.
5. **Enhancing Project-Specific Documentation:** While standard drawings are useful, greater emphasis should be placed on detailed, project-specific documentation. This can reduce on-site confusion and support smoother delivery, especially in complex or public projects.

4.6.3 General Recommendations for Cross-Market Improvement

1. **Knowledge Transfer Between Markets:** Professionals and organisations operating across both regions should foster exchange of best practices. For example, Abu Dhabi's streamlined processes can inspire regulatory reform in Queensland, while Queensland's innovation in infrastructure and environmental resilience can benefit projects in the UAE.
2. **Digitalisation and GIS Integration:** Both regions offer interactive GIS platforms, but further investment in AI-powered project planning tools and integrated data systems can enhance pre-construction analysis, site planning, and stakeholder communication.
3. **Leveraging Professional Platforms:** LinkedIn usage in Australia reflects a trend of professional development and industry awareness. Encouraging UAE-based companies and professionals to adopt similar strategies can help enhance brand value, talent attraction, and industry benchmarking.
4. **Unified Safety and Soft Skills Training Programs:** Cross-national training initiatives that focus on both technical and interpersonal (soft) skills could enhance mobility of professionals between markets and raise overall industry standards.
5. **Encouraging Comparative Research:** Further comparative studies between international markets should be supported to guide investors, policymakers, and educational institutions in preparing for future shifts in construction demands, sustainability, and skilled labour movement.

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Annexures

Questionnaire

Attached From Google Forms

Midocean University
Faculty of Management
Master of Project Management

**The Influence of Market Differences on the Staging and
Delivery of Small and Medium-Sized Construction
Projects: A Comparative Study between Central
Queensland and Abu Dhabi**

Prepared by:
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243000343

Supervised by:
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Dr. Fayez Ali Jrad

Year:
2025

The Influence of Market Differences on the Staging and Delivery of Small and Medium-Sized Construction Projects: A Comparative Study between Central Queensland and Abu Dhabi

Dear Participant,

My name is **Jaafar**, and I kindly ask for your help with my Project Management Master's thesis.

This survey will only take **5-10 minutes** to complete.

All information provided will remain **strictly confidential** and will be used for academic purposes only. You are not sharing your emails details.

Please read the questions and options carefully. Depending on your answers, **the survey may automatically direct you to relevant sections.**

Thank you for your time and support!

* Indicates required question

1. 1. Have you ever worked in construction projects? *

Mark only one oval.

☐ Yes *Skip to question 2*

☐ No. Thank you for your time. As this research focuses on construction project experience, the survey ends here.

Skip to question 2

I trust that your honest and professional answers will provide valuable insights.

2. 2.How old are you? *

Mark only one oval.

- ☐ Under 25.
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65 and above.

3. 3. How many years of **experience** do you have in construction projects? *

Mark only one oval.

- ☐ Less than 2 years.
- ☐ 2-5 years
- ☐ 5-10 years
- ☐ 10-15 years
- ☐ 15-20 years
- ☐ More than 20 years

4. 4. What is your professional **title** in a construction project? *

Mark only one oval.

- ☐ Foreman / Supervisor
- ☐ Engineer
- ☐ Manager
- ☐ Director
- ☐ Administration positions
- ☐ Recruiter

5. 5. What is your highest **qualification** or certificate? *

Mark only one oval.

- ☐ High school or equivalent
- ☐ Trade certificate or apprenticeship
- ☐ Diploma or Advanced Diploma
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ PhD or higher degree

Skip to question 6

Australian Experience Filter

6. 6. Have you ever worked in **Australia**? *

Mark only one oval.

- ☐ Yes *Skip to question 7*
- ☐ No (skips Australia's section) *Skip to question 34*

Australian Experience Section

The following questions focus on your experience working in construction projects **in Australia**. Please answer based on your knowledge and work history in the Australian construction market.

7. A.1. In which **state** do you have the most valuable construction experience? *

Mark only one oval.

- ☐ Queensland
- ☐ New South Wales
- ☐ Victoria
- ☐ Western Australia
- ☐ South Australia
- ☐ Northern Territory
- ☐ Australian Capital Territory (ACT)
- ☐ Tasmania

8. A.2. How hard was it for you to get your **first construction job**? *

Mark only one oval.

- ☐ Easy
- ☐ Average
- ☐ Difficult
- ☐ Very difficult

9. A.3. How often do you change your employer in the construction industry? *

Mark only one oval.

- ☐ Less than every 2 years
- ☐ Every 2 – 5 years
- ☐ Every 6 – 10 years
- ☐ More than 10 years

10. A.3. How many **hours** do you work weekly on average? *

Mark only one oval.

- ☐ Less than 30 hours
- ☐ 30 – 40 hours
- ☐ 41 – 50 hours
- ☐ 51 – 60 hours
- ☐ More than 60 hours

11. A.4. What is the approximate percentage of **women** in your current construction company? *

Mark only one oval.

- ☐ 0% (No women employed)
- ☐ 1% – 10%
- ☐ 11% – 25%
- ☐ 26% – 34%
- ☐ 34% – 50%
- ☐ More than 50%

12. A.5. What percentage of your work is done **from home** (on average)? *

Mark only one oval.

- ☐ 0% (Always on-site or office)
- ☐ Up to 25% of my work is from home
- ☐ 26% – 50% of my work is from home
- ☐ 51% – 75% of my work is from home
- ☐ 76% – 100% of my work is from home

13. A.6. What is the approximate ratio of your time spent at the **office** versus **on-site**? *

Mark only one oval.

- ☐ 100% office / 0% on-site
- ☐ 75% office / 25% on-site
- ☐ 50% office / 50% on-site
- ☐ 25% office / 75% on-site
- ☐ 0% office / 100% on-site

14. A.7. How **unique** or repetitive is each project you work on compared to others? *

Mark only one oval.

- ☐ Every project is very unique – completely different requirements and challenges
- ☐ Projects are mostly unique – some similarities, but major differences exist
- ☐ Projects are fairly repetitive – common designs, processes, and challenges
- ☐ Projects are very repetitive – nearly identical in design, processes, and delivery

15. A.8. How often do you **report** to your direct manager? *

Mark only one oval.

- ☐ Daily
- ☐ 2 – 3 times per week
- ☐ Weekly
- ☐ Fortnightly (every two weeks)
- ☐ Monthly
- ☐ Only when required / no regular reporting

16. A.9. How many hours do you spend **daily** on average in **meetings**? *

Mark only one oval.

- ☐ Less than 1 hour
- ☐ 1 – 2 hours
- ☐ 3 – 4 hours
- ☐ More than 4 hours

17. A.10. Please rank the following means of **communication** based on how often *
you use them daily at work (1 = Most used, 3 = Least used) (face to face
excluded)

Mark only one oval per row.

	1	2	3
Emails	☐	☐	☐
Phone calls	☐	☐	☐
Chat apps (e.g., WhatsApp, Telegram)	☐	☐	☐

18. A.11. How closely do you work with your **project team**? *

Mark only one oval.

- ☐ Very closely – daily direct interaction and coordination
- ☐ Moderately closely – regular interaction but some independent work
- ☐ Not very closely – mostly independent work with limited interaction
- ☐ I work independently with minimal team involvement

19. A.12. How much does **weather** affect the design and execution of your construction projects? *

Mark only one oval.

- ☐ It causes frequent delays and major disruptions
- ☐ It causes occasional delays but generally manageable
- ☐ It rarely affects project timelines or delivery
- ☐ It has no noticeable impact on project delivery

20. A.13. How would you describe the **laws** and legislation related to the construction industry in your region? *

Mark only one oval.

- ☐ Very clear and well-structured – easy to follow and enforce
- ☐ Generally clear – some areas need improvement
- ☐ Complicated – difficult to understand and apply in practice
- ☐ Unclear and inconsistent – often leads to confusion or disputes

21. A.14. How would you describe the **performance** of government **authorities** in providing permits, services, facilitation, communication, and response time? *

Mark only one oval.

- ☐ Very efficient – fast, clear, and supportive process
- ☐ Generally good – acceptable with some delays or minor issues
- ☐ Moderate – noticeable delays or complications, but manageable
- ☐ Poor – slow, unclear, or difficult processes causing major delays

22. A.15. How strict are **safety standards** and their enforcement on your construction sites? *

Mark only one oval.

- ☐ Very strict – safety standards are always enforced
- ☐ Moderately strict – generally enforced, but some flexibility
- ☐ Not very strict – standards exist but often overlooked
- ☐ No clear safety standards or enforcement

23. A.16. How strict are **environmental standards** and their enforcement on your construction sites? *

Mark only one oval.

- ☐ Very strict – environmental standards are always enforced
- ☐ Moderately strict – generally enforced, but some flexibility
- ☐ Not very strict – standards exist but often overlooked
- ☐ No clear environmental standards or enforcement

24. A.17. What is the approximate ratio of **machine** usage to **labourer** usage on a typical working day on site? *

(Note: machine operators should be excluded from the labourer count.)

Mark only one oval.

- ☐ 100% machines / 0% labourers
- ☐ 75% machines / 25% labourers
- ☐ 50% machines / 50% labourers
- ☐ 25% machines / 75% labourers
- ☐ 0% machines / 100% labourers

25. A.18. Please rank the following common reasons for **cost overruns** in construction projects based on their impact (1 = Most significant cause, 5 = Least significant cause)

*

Mark only one oval per row.

	1	2	3	4	5
Market fluctuations (material prices, fuel, etc.)	☐	☐	☐	☐	☐
Labour/machine shortages or unexpected labour/machine costs	☐	☐	☐	☐	☐
Poor planning or project management	☐	☐	☐	☐	☐
Design changes or scope variations	☐	☐	☐	☐	☐
Delays caused by weather or external factors	☐	☐	☐	☐	☐

26. A.19. How would you describe the effect of **global price** fluctuations and market changes on the delivery of construction projects?

*

Mark only one oval.

- ☐ Very significant impact – regularly affects project timelines and outcomes
- ☐ Moderate impact – affects some projects but manageable
- ☐ Minor impact – rarely affects project delivery
- ☐ No noticeable impact

27. A.20. Please rank the following common reasons for **time delays** in construction projects based on their impact (1 = Most significant cause, 5 = Least significant cause):

*

Mark only one oval per row.

	1	2	3	4	5
Market fluctuations (material or equipment shortages)	☐	☐	☐	☐	☐
Labour/machine shortages or unexpected workforce/machines issues	☐	☐	☐	☐	☐
Poor planning or project management	☐	☐	☐	☐	☐
Design changes or scope variations	☐	☐	☐	☐	☐
Delays caused by weather or external factors	☐	☐	☐	☐	☐

28. A.21. How would you describe the effect of **material lead times** (time required to produce and deliver materials) on your project timeframe or schedule? *

Mark only one oval.

- ☐ Very significant – often causes delays or major disruptions to the schedule
- ☐ Moderate – sometimes affects the schedule but generally manageable
- ☐ Minor – rarely affects the project timeframe
- ☐ No noticeable effect on project schedule

29. A.22. How would you describe the effect of **transportation** and freight on project costs and delays? *

Mark only one oval.

- ☐ Very significant – transportation and freight regularly cause cost increases and project delays
- ☐ Moderate – they occasionally affect costs and timelines but manageable
- ☐ Minor – rarely cause noticeable impact
- ☐ No effect – transportation and freight have no impact on project costs or timelines

30. A.23. How would you describe the **role** of the **consultant** in the relationship between the client and the contractor? *

Mark only one oval.

- ☐ Fair and neutral – consultant treats both parties equally and objectively
- ☐ Generally fair – minor bias but overall balanced
- ☐ Biased towards the client – consultant tends to favour the client's interests
- ☐ Biased towards the contractor – consultant tends to favour the contractor's interests
- ☐ I'm not sure / I don't deal directly with consultants

31. A.24. How **clear** are the drawings, specifications, and project **documentation** you receive? *

Mark only one oval.

- ☐ Very clear – easy to understand and follow
- ☐ Mostly clear – some minor issues but generally good
- ☐ Sometimes unclear – requires frequent clarifications
- ☐ Often unclear – major gaps or confusion in documentation

32. A.25. What do you **wish** to have more of in your construction projects? *

Mark only one oval.

- ☐ Resources (equipment, workforce, materials)
- ☐ Time for project delivery
- ☐ Budget flexibility
- ☐ Support from management
- ☐ Training and development opportunities
- ☐ Fairness and transparency between stakeholders

33. A.26. In your opinion, what construction-related technology is **most lacking** or missing in Australia? *

Mark only one oval.

- ☐ Advanced construction automation (e.g., robotics, automated machinery)
- ☐ Digital project management platforms (fully integrated systems)
- ☐ BIM (Building Information Modelling) widespread use
- ☐ Prefabrication or modular construction technology
- ☐ Advanced environmental or energy-efficient construction technologies
- ☐ Modern surveying technologies (e.g., drones, 3D scanning)
- ☐ AI tools for project planning and risk management
- ☐ Smart site monitoring (sensors, real-time data collection)
- ☐ Construction material innovation (e.g., sustainable materials, composites)
- ☐ GIS integration in construction project planning

Skip to question 34

Gulf Countries' Experience Filter

34. Have you worked in construction projects in any of the Gulf **countries** (UAE, Saudi Arabia, Qatar, Bahrain, Oman, Kuwait)? *

Mark only one oval.

- ☐ Yes. *Skip to question 35*
- ☐ No. (Ends the Survey)

Gulf countries (UAE, Saudi Arabia, Qatar, Bahrain, Oman, Kuwait)

Experience Section.

The following questions are **the same** as the previous ones; however, please answer them based on your experience working in construction projects within **Gulf countries** (UAE, Saudi Arabia, Qatar, Bahrain, Oman, Kuwait).

Your answers should reflect your knowledge and work history **in the Gulf region, not Australia.**

35. G.1. In which **Gulf country** do you have your most relevant construction experience? *

Mark only one oval.

- ☐ United Arab Emirates
- ☐ Saudi Arabia
- ☐ Qatar
- ☐ Bahrain
- ☐ Oman
- ☐ Kuwait
- ☐ I did not work in any of the above countries (Skips this section)

36. G.2. How **hard** was it for you to get your **first** construction **job**? *

Mark only one oval.

- ☐ Easy
- ☐ Average
- ☐ Difficult
- ☐ Very difficult

37. G.3. How often do you **change** your employer in the construction industry? *

Mark only one oval.

- ☐ Less than every 2 years
- ☐ Every 2 – 5 years
- ☐ Every 6 – 10 years
- ☐ More than 10 years

38. G.3. How many **hours** do you work **weekly** on average? *

Mark only one oval.

- ☐ Less than 30 hours
- ☐ 30 – 40 hours
- ☐ 41 – 50 hours
- ☐ 51 – 60 hours
- ☐ More than 60 hours

39. G.4. What is the approximate percentage of **women** in your current construction company? *

Mark only one oval.

- ☐ 0% (No women employed)
- ☐ 1% – 10%
- ☐ 11% – 25%
- ☐ 26% – 34%
- ☐ 34% – 50%
- ☐ More than 50%

40. G.5. What percentage of your work is done from **home** (on average)? *

Mark only one oval.

- ☐ 0% (Always on-site or office)
- ☐ Up to 25% of my work is from home
- ☐ 26% – 50% of my work is from home
- ☐ 51% – 75% of my work is from home
- ☐ 76% – 100% of my work is from home

41. G.6. What is the approximate ratio of your time spent at the **office** versus **on-site**? *

Mark only one oval.

- ☐ 100% office / 0% on-site
- ☐ 75% office / 25% on-site
- ☐ 50% office / 50% on-site
- ☐ 25% office / 75% on-site
- ☐ 0% office / 100% on-site

42. G.7. How **unique** or repetitive is each project you work on compared to others? *

Mark only one oval.

- ☐ Every project is very unique – completely different requirements and challenges
- ☐ Projects are mostly unique – some similarities, but major differences exist
- ☐ Projects are fairly repetitive – common designs, processes, and challenges
- ☐ Projects are very repetitive – nearly identical in design, processes, and delivery

43. G.8. How often do you **report** to your direct manager? *

Mark only one oval.

- ☐ Daily
- ☐ 2 – 3 times per week
- ☐ Weekly
- ☐ Fortnightly (every two weeks)
- ☐ Monthly
- ☐ Only when required / no regular reporting

44. G.9. How many **hours** do you spend daily on average in **meetings**? *

Mark only one oval.

- ☐ Less than 1 hour
- ☐ 1 – 2 hours
- ☐ 3 – 4 hours
- ☐ More than 4 hours

45. G.10. Please rank the following means of **communication** based on how often *
you use them daily at work (1 = Most used, 3 = Least used) (face to face
excluded)

Mark only one oval per row.

	1	2	3
Emails	☐	☐	☐
Phone calls	☐	☐	☐
Chat apps (e.g., WhatsApp, Telegram)	☐	☐	☐

46. G.11. How closely do you work with your project **team**? *

Mark only one oval.

- ☐ Very closely – daily direct interaction and coordination
- ☐ Moderately closely – regular interaction but some independent work
- ☐ Not very closely – mostly independent work with limited interaction
- ☐ I work independently with minimal team involvement

47. G.12. How much does **weather** affect the design and execution of your construction projects? *

Mark only one oval.

- ☐ It causes frequent delays and major disruptions
- ☐ It causes occasional delays but generally manageable
- ☐ It rarely affects project timelines or delivery
- ☐ It has no noticeable impact on project delivery

48. G.13. How would you describe the **laws** and legislation related to the construction industry in your region? *

Mark only one oval.

- ☐ Very clear and well-structured – easy to follow and enforce
- ☐ Generally clear – some areas need improvement
- ☐ Complicated – difficult to understand and apply in practice
- ☐ Unclear and inconsistent – often leads to confusion or disputes

49. G.14. How would you describe the **performance** of government **authorities** in providing permits, services, facilitation, communication, and response time? *

Mark only one oval.

- ☐ Very efficient – fast, clear, and supportive process
- ☐ Generally good – acceptable with some delays or minor issues
- ☐ Moderate – noticeable delays or complications, but manageable
- ☐ Poor – slow, unclear, or difficult processes causing major delays

50. G.15. How strict are **safety standards** and their enforcement on your construction sites? *

Mark only one oval.

- ☐ Very strict – safety standards are always enforced
- ☐ Moderately strict – generally enforced, but some flexibility
- ☐ Not very strict – standards exist but often overlooked
- ☐ No clear safety standards or enforcement

51. G.16. How strict are **environmental standards** and their enforcement on your construction sites? *

Mark only one oval.

- ☐ Very strict – environmental standards are always enforced
- ☐ Moderately strict – generally enforced, but some flexibility
- ☐ Not very strict – standards exist but often overlooked
- ☐ No clear environmental standards or enforcement

52. G.17. What is the approximate ratio of **machine** usage to **labourer** usage on a typical working day on site? *

(Note: machine operators should be excluded from the labourer count.)

Mark only one oval.

- ☐ 100% machines / 0% labourers
- ☐ 75% machines / 25% labourers
- ☐ 50% machines / 50% labourers
- ☐ 25% machines / 75% labourers
- ☐ 0% machines / 100% labourers

53. G.18. Please rank the following common reasons for **cost overruns** in construction projects based on their impact (1 = Most significant cause, 5 = Least significant cause) *

Mark only one oval per row.

	1	2	3	4	5
Market fluctuations (material prices, fuel, etc.)	☐	☐	☐	☐	☐
Labour/machine shortages or unexpected labour/machine costs	☐	☐	☐	☐	☐
Poor planning or project management	☐	☐	☐	☐	☐
Design changes or scope variations	☐	☐	☐	☐	☐
Delays caused by weather or external factors	☐	☐	☐	☐	☐

54. G.19. How would you describe the effect of **global price** fluctuations and market changes on the delivery of construction projects?

*

Mark only one oval.

- ☐ Very significant impact – regularly affects project timelines and outcomes
- ☐ Moderate impact – affects some projects but manageable
- ☐ Minor impact – rarely affects project delivery
- ☐ No noticeable impact

55. G.20. Please rank the following common reasons for **time delays** in construction projects based on their impact (1 = Most significant cause, 5 = Least significant cause):

*

Mark only one oval per row.

	1	2	3	4	5
Market fluctuations (material or equipment shortages)	☐	☐	☐	☐	☐
Labour/machine shortages or unexpected workforce/machines issues	☐	☐	☐	☐	☐
Poor planning or project management	☐	☐	☐	☐	☐
Design changes or scope variations	☐	☐	☐	☐	☐
Delays caused by weather or external factors	☐	☐	☐	☐	☐

56. G.21. How would you describe the effect of **material lead times** (time required to produce and deliver materials) on your project timeframe or schedule? *

Mark only one oval.

- ☐ Very significant – often causes delays or major disruptions to the schedule
- ☐ Moderate – sometimes affects the schedule but generally manageable
- ☐ Minor – rarely affects the project timeframe
- ☐ No noticeable effect on project schedule

57. G.22. How would you describe the effect of **transportation** and freight on project costs and delays? *

Mark only one oval.

- ☐ Very significant – transportation and freight regularly cause cost increases and project delays
- ☐ Moderate – they occasionally affect costs and timelines but manageable
- ☐ Minor – rarely cause noticeable impact
- ☐ No effect – transportation and freight have no impact on project costs or timelines

58. G.23. How would you describe the role of the **consultant** in the relationship between the client and the contractor? *

Mark only one oval.

- ☐ Fair and neutral – consultant treats both parties equally and objectively
- ☐ Generally fair – minor bias but overall balanced
- ☐ Biased towards the client – consultant tends to favour the client's interests
- ☐ Biased towards the contractor – consultant tends to favour the contractor's interests
- ☐ I'm not sure / I don't deal directly with consultants

59. G.24. How **clear** are the drawings, specifications, and project **documentation** * you receive?

Mark only one oval.

- ☐ Very clear – easy to understand and follow
- ☐ Mostly clear – some minor issues but generally good
- ☐ Sometimes unclear – requires frequent clarifications
- ☐ Often unclear – major gaps or confusion in documentation

60. G.25. What do you **wish** to have more of in your construction projects? *

Mark only one oval.

- ☐ Resources (equipment, workforce, materials)
- ☐ Time for project delivery
- ☐ Budget flexibility
- ☐ Support from management
- ☐ Training and development opportunities
- ☐ Fairness and transparency between stakeholders

61. G.26. In your opinion, what construction-related technology is most **lacking** or **missing** in the Gulf Countries? *

Mark only one oval.

- ☐ Advanced construction automation (e.g., robotics, automated machinery)
- ☐ Digital project management platforms (fully integrated systems)
- ☐ BIM (Building Information Modelling) widespread use
- ☐ Prefabrication or modular construction technology
- ☐ Advanced environmental or energy-efficient construction technologies
- ☐ Modern surveying technologies (e.g., drones, 3D scanning)
- ☐ AI tools for project planning and risk management
- ☐ Smart site monitoring (sensors, real-time data collection)
- ☐ Construction material innovation (e.g., sustainable materials, composites)
- ☐ GIS integration in construction project planning

Skip to question 62

Migrants Advice Filter

62. Would you like to **finish** the survey now, or answer a few extra questions to **help** new migrants better understand the Australian construction market requirements? *

Mark only one oval.

- ☐ I want to finish the survey
- ☐ I'm happy to answer the extra questions (5 questions) *Skip to question 63*

This section is designed to collect additional insights that can help new migrants better understand the Australian construction industry, its requirements, and its challenges.

Your answers will contribute to supporting professionals who are new to the Australian market, making their transition smoother.

63. M.1. Did you have to work in a non-construction job before finding your first role in the Australian construction industry? *

Mark only one oval.

☐ Yes

☐ No

64. M.2. What were the most challenging aspects for you when starting your construction career in Australia? *

(Please rank them from most to least challenging — 1 = Most challenging, 5 = Least challenging)

Mark only one oval per row.

	1	2	3	4	5
Understanding local regulations and codes	☐	☐	☐	☐	☐
Finding a job opportunity (local experience)	☐	☐	☐	☐	☐
The language barrier	☐	☐	☐	☐	☐
Workplace communication and culture differences	☐	☐	☐	☐	☐
Technical differences in construction practices	☐	☐	☐	☐	☐

65. **M.3. What soft skills do you believe are most important for success in the Australian construction market?** *

(Please rank them from most to least important — 1 = Most important, 4 = Least important)

Mark only one oval per row.

	1	2	3	4
Communication skills	☐	☐	☐	☐
Adaptability and problem-solving	☐	☐	☐	☐
Teamwork and collaboration	☐	☐	☐	☐
Time management and self-organisation	☐	☐	☐	☐

66. **M.4. Based on your experience, how long did it take you to feel settled and confident working in the Australian construction industry?** *

Mark only one oval.

- ☐ Less than 6 months
- ☐ 6 – 12 months
- ☐ 1 – 2 years
- ☐ More than 2 years

67. M.5. What qualifications or certifications would you recommend new migrants obtain to help them succeed in the Australian construction market?

Mark only one oval.

- ☐ Relevant Trade Qualification or Apprenticeship
- ☐ Diploma or Certificate in Construction or Project Management
- ☐ Safety Certifications (e.g., Working at Heights, Confined Space)
- ☐ Plant and Machinery Tickets (e.g., forklift, excavator, etc.)
- ☐ Engineers Australia Accreditation (e.g., Chartered Engineer, membership recognition)
- ☐ Other: _____

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