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An analysis of how culture influences the arbitration process used to resolve disputes on construction projects in Saudi Arabia

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**UNIVERSITY OF
PLYMOUTH**

**An analysis of how culture influences the arbitration process used to resolve
disputes on construction projects in Saudi Arabia**

by

Sultan Alsofyani

A thesis submitted to the University of Plymouth in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

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Author declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Doctoral College Quality Sub-Committee.

Work submitted for this research degree at the University of Plymouth has not formed part of any other degree either at the University of Plymouth or at another establishment.

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An analysis of how culture influences the arbitration process used to resolve disputes on construction projects in Saudi Arabia

Sultan Alsofyani

Abstract

This study aimed to investigate links between contractual disputes and project cultures in the construction industry of Saudi Arabia. Contractual disputes are those that arise from the contractual relationships binding parties to a particular project, which may broadly be categorised as being between an employer/client and a contractor or between a main contractor and a subcontractor/supplier. Project cultures describe the values, principles, beliefs and behaviours that parties bring into a contractual agreement. For this thesis, the author explored the extent to which the local culture of Saudi Arabia shaped and influenced contractual construction project disputes. The idea was to deepen the current understanding of the role that culture plays in the evolution of project disputes and that the study would explore the role that arbitration plays in the resolution of disputes on construction projects. Specific objectives provided a framework for the investigation, which included a systematic review of academic literature to assess current levels of understanding about construction industry culture and how it is linked to the evolution of disputes on construction projects. That review also assessed systems used to resolve construction disputes, focusing on arbitration and the arbitration system used in Saudi Arabia.

In Saudi Arabia, there was a gap in research investigating links between the local construction industry culture, disputes and the arbitration process to resolve disputes. This research aimed to fill that gap and reveal the extent to which the local culture facilitated either amicable or litigious dispute resolution methods. The author compiled data about construction industry disputes in Saudi Arabia to draw lessons linked to the overall project aim using case studies, observation, a questionnaire survey and face-to-face interviews. Analysis of the data followed a grounded theory-based critical post-positivist approach, which enabled the author to reveal new insights about disputes, arbitration and cultures in the construction industry of Saudi Arabia.

The research was able to add insights about common causes of disputes, with time overruns and awards to the lowest tender often being cited as a main cause of local disputes. One important and previously under-reported issue discovered by this research was that, in Saudi Arabia, the good-faith principle between the parties at the beginning of the project was a cultural issue that often led to disputes. That cultural issue often resulted in contracts being made with insufficient or inadequate contractual documentation. The poor development of contract documents then creating the seed from which disputes grew. The research was also able to reveal that people who work in the Saudi construction industry and who had little or no experience supported the view that disputes will be resolved amicably. However, as more significant experience is gained, so that early optimism diminished. That finding reveals how the local construction culture is less open to amicable means of dispute resolution.

To counter the hardening of attitudes towards amicable dispute resolution methods within experienced construction industry practitioners, the author questioned if the arbitration process could be a tool to affect a cultural change. In that regard, the research revealed that the transparency of the process, the high level of cooperation between parties, and heightened communication levels between the disputants were found to be strong points about arbitration in Saudi Arabia. However, those benefits are realised if the parties to construction projects in Saudi Arabia actively engage with the arbitration process. The latter point is a real problem, as this research also discovered that low levels of awareness and understanding of the arbitration process and its effectiveness were weaknesses of the current system in Saudi Arabia. On a positive note, the research also found that awareness levels were growing, with increasing numbers of organisations including arbitration clauses in their contracts.

Overall, research has been able to make a positive contribution to knowledge and understanding of links between contractual disputes and project cultures in the construction industry of Saudi Arabia. The findings are timely, as the research found signs that employers in Saudi Arabia are beginning to recognise the importance of cultural awareness and have started to provide culture training for their employees. However, when working to resolve disputes in the country, cultural awareness has yet to impact the level of cooperation between the parties when working to resolve disputes. To help facilitate future cultural change, the author has concluded this research with insights about features of the culture in the construction industry of Saudi Arabia that both help and hinder the way that disputes arise and are resolved in the country.

Preamble

This research was prompted by the author's own professional engagement as a Civil Engineering working in the construction industry of Saudi Arabia. The author's professional development commenced with the completion of a BSc in Civil Engineering, in Saudi Arabia. On reflection, the author noted that his degree included only one module on construction management and that module focussed on project scheduling and cost estimating. Nothing in the undergraduate programme addressed contract law, contract forms or contract clauses. That is important, as experts and researchers who have investigated construction industry disputes mostly agree that those features of construction management require understanding if disputes are to be avoided, or at least mitigated (Cheung & Pang, 2013; Omoto, 2011).

After several years working in the construction industry, the author developed the view that a lack of educational preparedness often exacerbated disputes in the construction industry. Methods to resolve disputes only start to be understood once an engineer is engaged in the practice of construction management. For the author that engagement commenced with a role coordinating information flow between designers and contractors on construction projects in Saudi Arabia. Reflecting back on that experience, the author could see how, right from the start of his career, disputes were a feature of his professional practice. In those instances, disputes often arose when a contractor was not supplied with important information about a design or when changes to designs were made by a client during construction. The experience linked well to evidence from the literature, which explained that those events are frequently cited as the causes of disputes (Cakmak & Cakmak, 2014; Yang & Wei, 2010). For the author, he learned that in Saudi Arabia, the client is a dominant party and contractors feel obliged to follow client instructions, knowing that they must often submit claims for extension of time, but also knowing that clients may not accept reasons for the delay, even when it is based on changes to scope made by the client. Here

again, that experience seemed to reflect what researchers who have studied disputes in the construction industry of Saudi Arabia were also finding (Abdallah et al., 2019; Alzeraa et al., 2018).

Subsequent experience, working as an inspector of works on different types of infrastructure projects in Saudi Arabia, highlighted issues about how disputes can arise when an overly optimistic time for completion is agreed between the parties. As a result, the quality of the finished product is often compromised. In this case, a Mega infrastructure project that the author worked on in Saudi Arabia resulted in many disputes between the project management team (client representative) and the contractor. The overriding imperative was to complete on time, no matter what the cost and the project went seriously over budget. But, the contractor did not complete the work as per the specifications. One year after completion of this project, a flood happened which should have been avoided if the proper specification had been adhered to, thereby highlighting the problem of prioritising timeliness over quality. After that experience, the author sought additional training and education to better understand methods of effectively managing construction projects. That education included a diploma in Business and an MSc in Project Management, completed in the UK. The additional education seemed to be appropriate choices at the time, but again on reflection, other than providing additional insights about the importance of cash flow, supply chains and effective procurement and risk management strategies, the issues of contract law, disputes and their resolution only received minimal coverage. That experience helped to illustrate why dispute resolution is often regarded as a specialist area, dominated by members of the legal profession, and why dispute resolution methods often steer towards adversarial and litigating methods (Alaloul et al., 2019; Wall et al., 2016).

Returning to Saudi Arabia, the author was engaged in a role managing elements of knowledge transfer projects, where international consultants provided training for Saudi Arabian construction professionals on the design process. Regrettably, the author judged that a focus on efforts to understand the causes of disputes and methods to resolve disputes effectively was lacking in the programme. In a subsequent role, the author was engaged in the review of project scoping documents from affiliate organisations (16No). The role mainly involved agreeing on budgets, project scope, timeframes for implementation

and contract type. Here again, and upon reflection, discussions about the need for clauses to address how disputes are managed were minimal, and disputes often occurred. Those experiences supported the findings of researchers, who suggested that parties involved in the development of contract documents do not spend enough time discussing clauses to include in the contract that address disputes and their resolution (Alsaedi et al., 2019; Covington, 2018).

The final example from the author's personal experience and one that helped to provide the final motivation to undertake this PhD, related to a job role working on strategic goals of the business and a public-private partnership project. That case was interesting, as for a long time some researchers have advocated a partnership approach as a means of minimising disputes on construction projects (Feldman, 1972). However, in the experience of the author, his one partnership project in Saudi Arabia contradicted the published research by having lots of disputes. These happened, in particular in relation to utilities designed by an international company that was not familiar with Saudi Arabian specifications. This led to long fights with regulatory authorities to get designs approved but then led to further problems during construction as inspectors rejected constructed facilities. In that case, the designer's contract was terminated and the new contract signed with a local designer (at great expense and delay). In another dispute (pipeline under a busy road) the contractor hit a big pipe and stopped work due to the risk that other elements of the design were incorrect. Lots of time was lost, and costs increased. Those challenges, conflicted with the literature advice, which suggested that disputes should have been minimised. It crystallised in the author's mind that further research was needed. It was important to find solutions that work in the Saudi context and to explain why the scenarios presented in this preamble are all too common in the country.

The author's hopes that his research will foster and support wider efforts to better understand links between contractual disputes and project cultures in the construction industry of Saudi Arabia and that lessons learned from his research will help to facilitate positive future change.

Sultan Alsofyani

(Author)

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Abbreviations appeared in the thesis

ARAMCO: Arabian American Oil Company.

ARCOM: The Association of Researchers in Construction Management

NEC: New Engineering Contract

RICS: The Royal Institution of Chartered Surveyors

SA: Saudi Arabia

FIDIC: International Federation of Consulting Engineers

JCCI: Jeddah Chamber of Commerce and Industry

DRB: Dispute Review Board

SATCo: Saudi Arabian Maritime Tankers Company

MWRD: Metropolitan Water Reclamation District

ACA: Aggressive Contract Administration

PWC: Public Works Contract

DDDs: Design Document's Deficiencies

ADR: Alternative Dispute Resolution

HGCRA: Housing Grants, Construction and Regeneration Act

SOCal: Standard Oil Company of California

GWC: General Works Contract

GCC: Gulf Cooperation Council

PRINCE2: PRojects IN Controlled Environments

PPP: Public-Private Partnership

PFI: Private Finance Initiatives

BIM: Building Information Modelling

GLOBE: Global Leadership Organisational Behaviour Effectiveness

UAE: United Arab Emirates

Chapter 1 - Introduction

The construction industry in Saudi Arabia has grown to account for 30-40% of all non-oil economic activity in Saudi Arabia (Al - Kharashi & Skitmore, 2009; Alhowaish, 2015; Alsharif, 2013). According to Alsharif (2013) , the Saudi Arabian Government spent USD\$68.3billion on construction projects in 2012, equivalent to 38% of total government expenditure that year. More recently, Alhowaish(2015) estimated that the Saudi Arabian government had plans to spend USD\$ 400 billion on construction projects during the period 2015-2020. However, the fortunes of the construction sector have been heavily affected by the fortunes of the oil sector, and the recent drop in oil prices has the potential to re-create the conditions that occurred between1985-1995 when the low oil price resulted in a significant drop in construction activity (Al - Kharashi & Skitmore, 2009). When construction activity declines, the good performance of the sector becomes much more of a concern, and in particular, the level of disputes often increases (Al - Hammad, 1993; Assaf et al., 2013; Hackett, 2002; Jannadia et al., 2000). As such, there is a need for research that can shed more light on the reasons why disputes arise and that can identify ways in which disputes can either be reduced or their impact reduced.

Klee(2015) stated that construction projects are naturally prone to disputes. He assessed that construction projects are often complicated and plagued with uncertainties, making them full of risk. As such, construction industries have developed a number of tools to help resolve disputes. In this thesis, the use of arbitration to resolve disputes on construction projects, specifically in Saudi Arabia, was investigated in detail. Arbitration is a widely used process that involves the appointment of a third party to help resolve contractual arguments (D. S. Stephenson, 2008). In Saudi Arabia, the use of arbitration on construction projects is governed by an Arbitration Law (or “Tahkeem” in Arabic). That law was first enacted in 1983 but has since undergone some significant changes and adaptations. The changes were made to help the process resolve cases that have become increasingly technical and complex (Tarin, 2015). According to Saleem(2012), the first arbitration law in Saudi Arabia was not very effective in dealing with disputes on construction projects, especially those with international dimensions.

One major amendment to the Saudi Arabian arbitration law happened in 2012. Deringer, (2012) stated that one of the law's main changes was that it gave disputing parties the right to arbitrate under a broader range of conditions, such as those defined by the International Chamber of Commerce. Al-Ammari & Martin(2014), judged that the new arbitration law was also more closely aligned to International Commercial Arbitration law, but added that the government had included changes to make it more compatible with the Sharia Law used in Saudi Arabia. There is little evidence of research that has assessed the extent to which the amended arbitration law in Saudi Arabia is facilitating or frustrating the ease with which disputes are registered and resolved.

The causes of construction disputes are well researched in the academic literature. Therefore, the author decided to research the causes of disputes from a different angle, through the lens of the culture within which the disputes arise and are settled. Previous studies identified that “culture” in the environment around projects influence project performance (Hofstede, 2005; Phua & Rowlinson, 2004b; Shen & Liu, 2003; Whitfield, 2012; Zuo & Zillante, 2006, 2005) . According to Zuo & Zillante(2005), project cultures define such things as shared values, basic assumptions and beliefs of project participants, as such, cultural understanding plays an important role in the interpretation of the behaviour of both individuals and organisations involved in construction projects. For Phua & Rowlinson(2004), there is a need to analyse the cultural roots of organisations before interpretations can be made about the collective purposes of the organisation and the behaviour of individuals in the organisation. For that reason, the author of this thesis developed a research plan to investigate how the cultural roots of organisations involved in construction projects in Saudi Arabia influence the ease or otherwise in which disputes arise and are subsequently resolved.

The author believed that there is a significant gap in investigating Saudi Arabian construction culture. With such a lack of research, a key question for this research was to find out how cultures influence the ability of parties to resolve disputes and the pathways they take when working to resolve disputes. What makes people decide what approach they will take? The author also wanted to study the application of arbitration from a cultural perspective. The research addressed question to determine the level of awareness of arbitration and how practical arbitration is perceived to be?

1.1 Working hypotheses:

1. Project disputes are a phenomenon common to construction projects around the world, but in Saudi Arabia, the frequency of project disputes is judged to be as high as in most other countries, so there is an urgent need to develop proposals that can effectively improve construction project performance.
2. The culture of the Saudi Arabian construction industry is not well studied, and its influence on the evolution of disputes is less well understood. There are growing awareness and concern that the current culture is having a detrimental effect on levels of trust between parties to construction contracts in Saudi Arabia (El-adaway et al., 2018; Jannadia et al., 2000; Mitra & Tan, 2012) and there is an urgent need to verify if this concern is valid or not.
3. Despite the fact that the law on arbitration is well established in Saudi Arabia, there is very little evidence of research assessing the effectiveness of the arbitration process in changing construction industry culture and reducing the frequency and severity of disputes in the industry. There is a pressing need for new research that aims to assess how the arbitration process can be harnessed to apply new learning about construction industry culture to mitigate the future frequency and severity of disputes in the industry.

1.2 Aim

This research will identify the key links between contractual disputes and project culture in the construction industry of Saudi Arabia. It will deepen current levels understanding of the role that culture plays in the evolution of project disputes. In addition, the research will explore the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia, assessing how the arbitration process can be harnessed to apply new learning about construction industry culture to mitigate the frequency and severity of future disputes in the industry.

1.3 Objectives

- To assess current levels of understanding about construction industry culture and how it is linked to the evolution of disputes on construction projects.
- Review systems used for the resolution of construction disputes, with a specific focus on arbitration and the arbitration system used in Saudi Arabia.
- Compile data about construction industry disputes in Saudi Arabia, to deepen understanding of links between the evolution of disputes and construction industry culture.
- Identify the key features of Saudi Arabian construction culture that are linked to the evolution of disputes and can be incorporated into the arbitration system to mitigate the frequency and severity of future disputes in the construction industry of Saudi Arabia.

1.4 Research Questions

Research questions based on the questions mentioned above:

- How does culture influence the evolution and resolution of disputes on construction projects in Saudi Arabia?
- How is the arbitration process applied in the resolution of disputes on construction projects in Saudi Arabia and what defines the culture that determines its use and effectiveness?

1.5 The research journey and associated activity

As part of this project, the author has engaged with several research activities to help build a broad and holistic understanding of the subject matter. Those activities included:

- **2016:** Observational visits to three seminars focussing on commercial and contractual aspects of construction management (ARCOM 2016, NEC 2016 RICS 2016). These visits helped to identify contemporary issues in engineering management research. In particular, it highlighted the growing interest in the link between culture and engineering project performance (Tijhuis & Fellows, 2012)

- **2017:** Presenting ideas derived from the published research about links between culture in the construction industry of Saudi Arabia, disputes and the arbitration process at two international conferences, one in Poland and one in Saudi Arabia (Alsofyani, Fox and Miles 2017, The Constructed Environment 2017, IECE 2017). Also started collecting preliminary data for the thesis in a pilot study conducted in the UAE and involving a focus group session (N=1) and a few interviews (N=2), these involved lawyers and engineers with experience of managing construction disputes in the Middle East region.
- **2018:** Engaged in direct observation of Arbitration cases being heard informal session in Jeddah, Saudi Arabia (N=3). Also collected statistics on construction disputes from the Jeddah Chamber of Commerce (JCCI) (N=7). Besides, completed interviews with lawyers, arbitrators and engineers from Jeddah, Riyadh and Dhahran, all of which have experience in the resolution of disputes using arbitration in Saudi Arabia (N=18).
- **2019:** Completed a questionnaire survey exercise. This activity focussed on collecting data from respondents who have and those who have not: the experience of the Dispute Resolution Board (DRB) in Saudi Arabia; experience of the dispute resolution process in Saudi Arabia; many years of experience in the Saudi Arabia construction industry (Final total of completed surveys, N=67).

1.6 Structure of the thesis

Further details of the above activities and how they informed this research are discussed throughout the thesis. In Chapter 2 the author provides a synopsis of relevant literature and current understanding about culture in construction, construction industry disputes and the arbitration process in Saudi Arabia. In Chapter 3, the author explains the rationale for the research methodology used in this research and describes methods used for data collection and analysis. Chapter 4 is the first of three main discussion chapters. Chapter 4 presents new insights about disputes in the Saudi Arabian construction industry, Chapter 5 reveals new understanding about the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia and Chapter 6 consolidates the research with insights about culture in the Saudi Arabian construction industry. Chapter 7 validates the main

research findings. Chapter 8 brings all the lessons from the three discussion chapters together to explain how the aims and objectives of the research have been met.

Chapter 2 - Literature Review

2.1 Introduction

This chapter gives the reader what the previous literature and studies stated about construction culture, dispute causes and arbitration. It begins with a description of the definition of the culture and its means in the construction context. The organisation culture and the leadership culture within these organisations were elaborated. The author emerged the Saudi Arabian construction culture in this chapter for the sake of deep understanding. The historical dispute causes in the construction across the globe were also elaborated along with the dispute causes in Saudi Arabia. The author commenced the arbitration section of this chapter by providing a general overview of the Saudi Arabian legal system and where the arbitration fits. Then, the author will summarise the chapter to include the gaps that the thesis will fill to contribute to the knowledge.

2.2 Culture in Construction

This section will provide a general overview of culture as a topic for research before considering the specific context of culture within projects. Finally, this section will look specifically at research that has focussed on project culture within the construction sector. The aim is to provide the reader with a good understanding of the nature of "culture research" and "project culture research" more specifically, before exploring the breadth and depth of literature looking at culture in construction. This section will help identify gaps in the established literature and highlight areas in which this research will add new knowledge and understanding to the subject of culture in construction.

2.2.1 Culture and the organisational culture

According to Soares et al.(2007) and Wu(2006), Hofstede is an essential figure in the study of culture. They defined culture as the collective programming of the mind that distinguishes the members of one group or category of people from another. Of significant relevance for this thesis, Venaik & Brewer(2013) also found critical issues in Hofstede that cultural issues can often be found at the root of disputes. Hence understanding the basic cultural principles helped the author to draw a map for this thesis. Dawson(1992) and Zuo & Zillante (2005)

found that culture is defined by the shared values, basic assumptions and beliefs held by individual and that these factors define the relationships between individuals and the organisations they represent. For Obeidat et al. (2012), understanding the patterns of behaviour that define cultures helps researchers interpret the structures that define society and interpret the interactions between individuals in that society and between the society and the rest of the world. There are shared values and beliefs from the Islamic perspective in Saudi Arabia. This ground shaped how people interacted and resolved their disputes amicably or legally as the reader will notice later in this thesis. What this brief introduction reveals is that culture plays a vital role in the behaviour of individuals and organisations involved in construction projects, but further study is needed build a better understanding of the role that culture plays in levels of performance.

The author took the organisational and company culture as a starting point to investigate the construction culture as the interaction between the parties in the projects is represented by various organisations. Deal(1982) proposed that culture was the element that described why any company is different from another one, even if both are doing the same business. They identified five organisational culture elements that differentiate any organisation; business environment; values and norms; heroes; rites and rituals, and communication. Geert(1994) identified a further six dimensions of organisational culture:

1. Process-oriented versus results
2. Job oriented versus employee-oriented
3. Professional versus narrow-minded
4. Open systems versus closed systems
5. Rigidly versus Loosely controlled
6. Pragmatic versus Normative

When studying an organisation, Cameron(1984) and Quinn(1988) identified six elements within the organisation to represent culture. These elements are as follows:

- Dominant characteristics of the organisation - Dominant characteristics can be considered as core values of the organisation.

- Style of the organisation leader - To develop and maintain a culture, the leaders of an organisation must function in a manner consistent with the organisation's existing or desired culture.
- Organisational glue - It is adopting the organisation's value.
- Nature of organisational climate - This explains the existing working environment of the organisation.
- Success criteria of the organisation –
- Management style towards the employees -

For Phua & Rowlinson(2004) there is a need to analyse the cultural roots of organisations before interpretations can be made about the organisation's collective purposes and the behaviour of individuals in the organisation. There seems to be a gap in understanding how the cultural roots of organisations involved in construction projects influence the ease or otherwise in which disputes arise and are subsequently resolved. Specifically, research is needed that studies the impact of leadership on the organisational culture, especially in Saudi Arabia.

The Global Leadership Organisational Behaviour Effectiveness (GLOBE) project provided some interesting research that will be explored further in this thesis. The study looked at culture from leadership perspectives House et al.(2002). The research programme sought to understand how the leaders affect and are affected by an organisation's culture and how these effects are transferred through generations (House & Aditya, 1997). The project identified nine dimensions to an organisational culture linked to leadership:

1. Uncertainty avoidance: The level to which leaders of organisations avoid uncertainty to lessen the future's changeability.
2. Power distance: The level to which leaders of organisations believe that power should be shared.
3. Collectivism 1: The extent to which leaders encourage cooperative distributions of resources.
4. Collectivism 2: The extent to which leaders and others are expected to balance loyalty to their families against loyalty to the organisation.
5. Gender egalitarianism: The level to which leaders of the organisations reduce gender role differences.

6. Assertiveness: The degree to which leaders are aggressive in social relationship.
7. Future orientation: The level to which leaders plan for the future.
8. Performance orientation: The extent to which leaders of organisations reward group members for their performance.
9. Human orientation: The degree to which leaders rewarded others for their honesty and fairness.

The GLOBE criteria will be used in this thesis to characterise how the leadership of construction organisations define the culture of construction projects in Saudi Arabia.

It is clear from the brief introduction above that culture is complex, and many different components need to be considered in any research that includes culture as a component in its research. In the next section, a more detailed exploration of the culture of Saudi Arabia will be presented.

2.2.2 Culture in the construction industry

Looking specifically at the construction industry, the main parties in the construction project are the employer (client), the consultant and the contractor. The employer would normally first procure the consultant's services, review the technical specifications for the project concept, and draft the construction activity's cost budget. The consultant may or may not be engaged in the works' detailed design and may or may not be involved in the contractor's selection and oversight (Rameezdeen & Gunarathna, 2012). After securing the services of the consultant, the client will normally procure the services of the contractor, to directly undertake the construction of the works or to manage the construction process (Fernando, 2002). The culture of the procurement system itself has been the subject of research. Rameezdeen & De Silva(2002) found that, in Sir Lanka, the culture of the procurement system is hard to adapt. The author aimed to explore the procurement and contracting system's culture in Saudi Arabia, leading to the contractual relationship between the different parties. The procurement system for public projects in Saudi Arabia is very structured and rigidly adhered to. The procurement of construction services is governed by some stringent tendering procurement law managed by the Ministry of Finance (Ministry of Finance, 2015). Rameezdeen & Gunarathna (2012) identified four organisational culture types;

- **Clan culture** - Participation and openness are the main characteristics in the organisation, and such a culture aims to involve everyone in the organisation's activities and decisions. Rewards are based upon group and performance rather than an individual one.
- **Adhocracy culture** - The growth of the organisation is a result of innovation and adaptation.
- **Market culture** - It is being directed to the market and the production to make a profit.
- **Hierarchy culture** - It describes how the bureaucratic process within the organisation is.

Of particular relevance for this thesis, Rameezdeen & Gunarathna (2012) found that consultants and contractors are influenced by the clan and market culture, respectively. They judged that the different cultures might be linked to the separation of roles related to the design and construction of the works on a project. Consultants' culture is more participative and information sharing; on the other hand, contractors emphasise to maximise their profit.

Conflicts and disputes are not uncommon events on construction projects, and it is essential to understand the underlying roots cause of conflict before it can be resolved (Whitfield, 2012). This understanding is applicable in construction across the globe and in Saudi Arabia, specifically for this research. As societal cultures differ from one place to another, organisational cultures vary from one construction project to another. Zuo & Zillante (2005) assessed that an effective project culture is one of the main objectives the project manager aims to achieve. In the same study, the authors suggest that one of the project manager's main responsibilities is to keep the team motivated and resolve any issues arising in the project quickly. The project culture can affect how frequently issues arise and how effectively they are resolved. Whitfield (2012) stated that one mistake projects managers make repeatedly is to focus on symptoms of the conflict and not the root causes of conflict.

Chan & Tse (2003) found that a good understanding of the impact that an effective project culture can have on a project performance may be gained by analysing how conflicts and disputes on projects are identified and resolved. Therefore, the author aimed to know the different components that cause disputes and different resolution approach. By way of illustrating the impact of ineffective project culture, in a continuation of the dispute analogy, Zuo & Zillante (2005) explained that an "objectives" conflict is essential to be addressed, and

an effective project culture must be able to distinguish these types of conflicts from others. For example, each party in the project is evaluated and rewarded based on the tasks they are given, but most of the time, parties focus on their own personal objectives rather than the project's objectives, and this will harm the whole project (Chan & Tse, 2003). This is linked to four different organisational types mentioned earlier, such as clan and market culture. The market culture focuses on individual rewards, while the clan focuses on group rewards. The culture of different parties shall be explored in this research. An effective project culture will enable this distinction to be recognised and resolved quickly and appropriately.

A significant dispute case happened in 1985 in the Arabian American Oil Company, the largest Saudi Arabia organisation. The author wanted to study its impact on the dispute resolution culture and arbitration. Schwebel (2010) found that the culture on construction projects in Saudi Arabia underwent a significant shift after a dispute on a large oil project in 1958. The dispute involved (ARAMCO), established in the 1930s to explore and produce crude oil in the Kingdom of Saudi Arabia. At the heart of the dispute was a concession agreement between the government of Saudi Arabia and ARAMCO (Schwebel, 2010). This significant dispute case will be elaborated further in the development of arbitration law in Saudi Arabia section in this chapter. The law relating to how the dispute on publicly funded construction projects was changed significantly affected the culture in relation to handling disputes on those projects.

2.2.3 Starting along the road to understanding of culture and its impact on the Saudi Arabian construction industry

RICS Commercial Management in Infrastructure Conference 2016

In the first year of this PhD research programme, the author attended the RICS Commercial Management in Infrastructure Conference. The idea was to develop a deeper understanding of the UK construction industry culture. That would be achieved by participating in professional discussions about issues that commercial managers faced in the UK. The author attended a number of different sessions at the conference, but from a cultural understanding perspective, the main session that really shed light onto the UK construction industry culture was “Commercial management in infrastructure – examining the key differentiators”. During this session, the author learned that, in the UK, the culture was changing, driven by the changing environment between contractors and clients (Tennant &

Fernie, 2012). In addition, the professional practice was moving away from a “project” management culture, which was distinguished by the focus on one project at a time. Instead, there was a growing recognition that commercial managers increasingly have to operate in multi-project environments and that has led to a shift towards “programme” management culture. Part of this cultural shift includes a recognition that, for programme success, collaboration is key to success (Low et al., 2015; Phelps & Reddy, 2009).

The author learned that an effective collaboration culture between the parties contributed immensely to the project’s success. He also learned that there is no one system for all situations, and commercial managers must adopt the culture to suit the different environment in different projects. It is important that adequate resources are provided to enable the adaptation to be implemented, and that is especially true when disputes arise. Finally, a programme management culture is easier to create when the suite of connected projects are administered within one organisational unit. To summarise, key lessons that the author learned about construction industry culture are that collaboration, adaptation and coordination are three important cultural ingredients for success.

NEC (New Engineering Contract) Annual Seminar 2016

The author also attended the NEC (New Engineering Contract) 2016 Annual Seminar. The NEC event was an important one from the perspective of culture research for this thesis. That is because, the NEC itself was created in the 1990s, to force a culture change in the UK construction industry. That desire is well expressed by a quote from their website:

“Our philosophy was to produce something which cured every known ill of traditional contracts. We did not have to compromise. Everything we thought would be a good idea went in – and we could decide what to put in solely on the basis of what would stimulate all those using it to manage their contribution well. – Martin Barnes” (NEC, 2020)

A key feature of NEC contracts is that they are written in “plain language”, which they considered would stimulate rather than frustrate good construction management. At the time of the 2016 annual seminar, the NEC team were working on the 4th edition of the contract suite. That suite now has more than 39 different variants for the many different situations in which the forms are used, from mega projects to small projects (NEC, 2020).

At the 2016 event, the keynote speaker stressed that cultural change in the construction industry is leading to a greater focus on shared success. Below is the quote from the speech:

“Success must cascade down the UK's invaluable and innovative supply chain with all project partners better incentivised to deliver 'shared objectives'...I know of examples of people putting the contract on the shelf once procured. That fills me with horror. We must select contractors on their ability to deliver the project's strategic objectives, not services alone...So many elements of UK Construction are delivered by sub-contractors, many of whom do get squeezed in fixed-price contracts.- Beth West”
(HALEWOOD, 2016)

The author was struck by some of the similarities of the sentiment expressed at the seminar, with his own experience of the Saudi Arabian culture. The abandonment of contracts, once they are signed, the focus on price and not on service, the trend to sub-contract and the practice of squeezing value out of sub-contractors and suppliers on construction projects all aligned well with the culture in Saudi Arabia's construction industry.

To some extent, the author's optimism of finding a solution to Saudi Arabia's problems that arose after the RICS 2016 conference were dealt a blow after this seminar. The NEC event painted a less rosy picture of the culture in the UK and suggested that, although some positive strides had been made during the 20+ years of using the NEC contract, in the UK there was still a lot to do to change the culture of the construction industry.

Association of Researchers in Construction Management [ARCOM], the 32nd Annual Conference

Whereas the RICS and NEC events described above were very UK focused, at the Association of Researchers in Construction Management (ARCOM) 32nd Annual Conference in 2016, the author was able to develop a deeper understanding of issues and research themes that relate to culture in the construction industry, at an international level.

Three presentations, in particular, stood out as providing valuable insights about culture. The first, called “Evolutionary collaboration network and organisational competitiveness in megaprojects” included an investigation of different tendering and contractor selection strategies. For the author, the link to culture was created when the presenter emphasised the beneficial effects of collaboration as part of that process, especially on megaprojects.

The second session was titled “Assessing the maturity of public construction client organisations”. The idea of a maturity model helps to focus attention on specific organisational qualities and provides a framework to improve performance. Importantly for this research, the model outlined had 10 aspects, and one of them was “culture and leadership”. The idea of culture linked to an organisational maturity model was new to the author and something that he had not encountered in published literature. The third and final lesson was derived from a presentation called “Benchmarking BIM levels of training and education amongst construction management practitioners”. This presentation assessed the effectiveness of Building Information Modelling (BIM) in facilitating collaboration on construction projects. The author was aware that BIM was an emerging technology, whose advocates claim is set to revolutionise how construction projects are managed. However, in Saudi Arabia, BIM has yet to make a significant impact. For this research, the issue in relation to culture is closely aligned to the cultural shift towards a more collaborative approach to the management of construction projects. So, if BIM does become more widely used in Saudi Arabia, then efforts to improve the collaborative culture between parties to construction projects might be more effective.

Reflecting on what he had learnt from the ARCOM conference, the author came up with new ideas about organisational culture in relation to this thesis. He focussed on the Global Leadership Organisational Behaviour Effectiveness (GLOBE) project, which provided some exciting ideas about culture from a leadership perspective (House et al., 2002). The GLOBE programme sought to understand how the leaders affect and are affected by an organisation’s culture and how these effects are transferred through generations (House & Aditya, 1997). The project identified nine dimensions to an organisational culture linked to leadership:

10. Uncertainty avoidance: The level to which leaders of organisations avoid uncertainty to lessen the changeability of the future.
11. Power distance: The level to which leaders of organisations believe that power should be shared.
12. Collectivism 1: The extent to which leaders encourage cooperative distributions of resources.

13. Collectivism 2: The extent to which leaders and others are expected to balance loyalty to their families against loyalty to the organisation.
14. Gender egalitarianism: The level to which leaders of the organisations reduce gender role differences.
15. Assertiveness: The degree to which leaders are aggressive in social relationship.
16. Future orientation: The level to which leaders plan for the future.
17. Performance orientation: The extent to which leaders of organisations reward group members for their performance.
18. Human orientation: The degree to which leaders rewarded others for their honesty and fairness.

Seventh International Conference on the Constructed Environment and the Constructed Environment Research Network, Poland, May 26-27 2017

The first year of this research programme provided the author with an initial grounding from which to develop his ideas about culture. In the second year of the research, the author felt ready to present his research in a conference. The author aimed to get comments and different views on his theory about the culture by presenting a paper at the Seventh International Conference on The Constructed Environment, in Poland and in May 2017. His paper was called “*New Culturally Engaged Practices of Law and Regulation to Improve the Construction Environment in Saudi Arabia*”. In his presentation, the author explained that Saudi Arabia is a relatively modern state, and much of its recent development has been funded by revenue generated by its oil industry. In the 1970s, the Saudi Arabian government started implementing a national development plan, which triggered a significant expansion of the construction industry Ministry of Economy and Planning (Ministry of Economy and Planning, 2015). The construction industry subsequently grew to account for 30-40% of all non-oil economic activity (Al - Kharashi & Skitmore, 2009), but the fortunes of the sector have been heavily affected by the fortunes of the oil sector. The period 1985-1995 was one where oil prices were suppressed, and construction activity was curtailed. During the period of low oil prices, the performance of construction contracts became an issue of heightened concern, a concern that is reflected in the current economic environment in Saudi Arabia. The 1985-1995 curtailment of construction output was triggered by a pattern of events that are currently being replicated, with a significant and sustained drop in the price of oil, so

important lessons from the earlier period need to learn in order to help the construction sector weather the inevitable downturn in the activity that is likely to occur in the near future. That said, there is a gap in the established literature about lessons learned from the 1985-1995 economic downturn and the impact it had on construction contract management in Saudi Arabia.

The presentation went on to explain that many construction projects in Saudi Arabia are financed from the public sector and have to go through a formal approval process (Alhowaish, 2015; Alsharif, 2013; Hashim Abdurahman., 2013; Ministry of Finance, 2015). Contractors who wish to bid for public sector projects and many of the larger private sector projects have to be registered National Anti-corruption Commission (National Anti-corruption Commission (NAZAHA), 2010). The system for commissioning projects and appointing contractors is, as a consequence, highly controlled and somewhat restrictive. This system has advantages in creating efficient procurement pathways, but also disadvantages by creating an inflexible structure that struggles to adapt to the widely varying scope and scale of construction projects.

Over recent years the “culture” that exists both on and in the environment around a project has increasingly been linked to project performance (Hofstede, 2005; Phua & Rowlinson, 2004a; Shen & Liu, 2003; Whitfield, 2012; Zuo & Zillante, 2006, 2005). According to Zuo & Zillante (2005), the project culture defines such things as shared values, basic assumptions and beliefs of project participants, which can have a large impact on project performance. Further studies in the construction sector reveal that project cultures can be divided into sub-groups, such as Lean management cultures or value management cultures (Shen & Liu, 2003; Zuo & Zillante, 2006). Again, there is little evidence of any published research that has explored culture on Saudi Arabian construction projects.

In this research, the concept of arbitration was used as a lens through which cultures that lead to disputes on construction are analysed. In Saudi Arabia, there is an arbitration law that is governed by Islamic law, which regulates the whole country. The arbitration law was introduced in 1983, then revised and reformed in 2012 (Tarin, 2015). Arbitration is one of the leading dispute resolutions approaches in Saudi Arabia, and this thesis has used the arbitration process to investigate links between contractual disputes and project cultures in the construction industry of Saudi Arabia. The author found little evidence in the published

literature to explain links between contractual disputes and constituents of project cultures and judged that there was a need to deepen current understanding of the role that culture plays in the evolution of project disputes.

The presentation ended by promising followers of the research that they will be able to develop new insights about the culture of the Middle East construction industry, a deeper understanding of the link between the Saudi Arabian construction industry culture and disputes that occur on local construction projects.

Pilot study exercise, Dubai, 1st December 2017

The author had an excellent opportunity to test the research questions in a country with a similar construction culture, Dubai, UAE. As previously described, he organised a focus in Dubai, including people with relevant construction industry experience and used their feedback received to inform his larger study in Saudi Arabia context. In relation to culture, the main findings from the focus group were:

- In the region, the dominant culture is one where the client negotiates hard for the lowest price
- The culture is strongly embedded and is highly resistant to change
- The culture is one where hard bargaining is the norm, and negotiation for a deal is both expected and respected.
- The culture may be a tradition, stemming from a long and respected history of a “market” culture, linked to the merchant trade in the region

The author was able to explore further the validity of these findings in the survey and interviews conducted for this research (see below).

The International Engineering Conference and Exhibition, Riyadh 4-7 December 2017

Immediately following the Dubai focus group activity, the author travelled to Saudi Arabia to present a paper at the Saudi Engineering Conference, in Riyadh. This paper aimed to get further insights from local professionals familiar with the Saudi construction industry. The author’s paper was called “Culture in the Construction Industry of Saudi Arabia, Disputes and Arbitration”. The paper covered many of the points presented in Poland, but went further in certain areas. First, the author stressed that, according to Klee (2015),

construction projects are naturally prone to disputes. Construction projects are often complex and plagued with uncertainties, which makes them full of risk. Research by Assaf et al. (2013) categorised three main types of risk that need to be allocated between the parties to a construction contract, specifically:

1. The economic risk, associated with managing the financial cash flow on the project
2. The technological risk, associated with ensuring that novel systems, products or processes are installed correctly and function as anticipated
3. The organisational risk, associated with the complexity of the construction process

For this paper, the author attempted to explain his theory about how culture directs and/or is directed by the allocation of risk between parties involved in construction projects. He proposed that a deeper understanding of links between culture and project risk allocation could provide new insights about how disputes arise.

For Hackett (2002), disputes on construction projects arise for several reasons; for instance, when one or other party:

- 1) Fails to execute the activities as instructed and within the time frame;
- 2) Fails to communicate and expressing its needs clearly;
- 3) Fails to comprehend the full consequences of the instruction provided or received.

The author explained that his research would examine how a deepened understanding of culture in the construction industry can help in the development of “culturally engaged” practices that will be more effective in mitigating both the development and impact of disputes. He identified important questions that this research would investigate further:

- How can a better understanding of culture improve levels of performance on construction projects?
- How do the cultural roots of organisations influence the ease or otherwise in which disputes arise and are subsequently resolved?
- How important are the education, religious and political-cultural frameworks in shaping the culture of the construction industry in Saudi Arabia?

- How is the culture of the Saudi Arabia public sector construction procurement system helping or hindering the creation and resolution of disputes in the construction industry?
- How do the cultures of consultants and contractors in the construction industry of Saudi Arabia align with the culture typology described by (Rameezdeen & Gunarathna, 2012)?
- How can an understanding of the cultural typology of Saudi Arabian construction companies reveal lessons about the development and resolution of disputes on construction projects?
- How well understood are “project cultures” in the Saudi Arabian construction industry and how effective are the project cultures in dealing with conflicts as they arise?

2.3 Construction disputes and the Saudi Arabia context

A core and underlying theme central to this thesis is the evolution of disputes on construction projects. It is a widely acknowledged and regrettable fact that disputes are not rare on construction projects. A significant body of research explored many factors that cause disputes and the effectiveness of industry parties' strategies (Alshahrani, 2017; Assaf et al., 2013; Mahamid, 2016). This thesis will add to that body of knowledge by providing new insights into the nature of disputes on construction projects in the Saudi Arabian construction industry, which is a less well-explored area. The author targeted to find the dispute causes that are linked to the construction culture in the country. As a basis to frame that contribution, this chapter will provide a snapshot of current knowledge and understanding about the evolution of construction projects' disputes. In that regard, the author is mindful that, as technological, social and economic factors vary in importance and severity, the basis for disputes on construction projects also changes. Hence, this section will review evidence to contextualise the technological, social, and economic environment in which construction disputes were emerging when the research was conducted and with specific reference to the Saudi Arabian context in which the research is located. This section of the thesis will also highlight important questions that remain to be answered and explain

what this thesis will aim to achieve to contribute to a new and deepened understanding of the subject area.

2.3.1 Common causes of disputes on construction projects

In this section, a sample of published material from a period spanning the last 50 years has been analysed. That sample was taken to see how and why the common causes of disputes on construction projects have changed over time and to help identify any evidence of trends that may be significant when predicting what issues may lead to disputes in the future.

Another purpose is to examine if these causes are similar or different in the Saudi Arabian industry. Some of the earliest research analysed Feldman (1972), found that the relationship between the contractor on a project and the architect/engineer on a project and/or the client/owner caused many disputes. The relationships were often ones of opponents rather than partners on the project. Feldman (1972) highlighted a critical trend in the developments of disputes, which related to the role of the architect/engineer role.

According to Feldman (1972), the tradition had been that the architect/engineer was independent of dispute issues. However, the new trend was that the architect/engineer tended to side with the owner against the contractor in disputes. Essex (1996) provided a good example of this, stating that in past decades owners tended not to accept the risk of site conditions and transferred the risk to other parties. In response to the owners' actions, the contractors were required to evaluate the site conditions. Consequently, the disputes often happened in relation to site conditions. According to Coulson (1983), the architect/engineer was traditionally seen as the first arbiter in a construction project dispute, whose job was to resolve disagreements between the parties. If the parties did not agree on the settlement or the negotiation, they choose to go to another third party to resolve the disputes.

Most of the disputes as Dang et al. (2020) declared, are associate with the contracts, such as the contract's quality or undoable customer's needs. Therefore, this research investigated the impact of insufficient contracts on disputes in Saudi Arabia. Failure to manage the contact and to comply with the contractors' obligation are two of the leading dispute causes globally (Illankoon et al., 2019).

Essex (1996) and Treacy (1995) both provided an analysis of disputes running through the 1970s-80s, reporting that the number of construction disputes more than triple during the period. For Coulson (1983), the development of new construction methods during the late 1970s was leading to a new wave of disputes. New "fast track" methods, which overlapped design and construction, were becoming increasingly common. However, the new methods led to new risks due to design changes and delays in design decisions, around which disputes developed. Here is a factor that the author aimed to discuss in this thesis and study if it is one of the leading causes of Saudi Arabia disputes. Goyal & McDonald (1996), studied a number of construction projects in Canada and found that in 80% of cases, a change in scope, which was the main cause of the dispute. Goyal & McDonald (1996), classified the leading causes of disputes into three categories:

- Changes in scope after commencement of works
- Extra work requested by the client
- Errors and omission in the design

Essex (1996) explained that underground construction projects were good examples of how uncertainties in site conditions (hence the scope of works and design requirements) often lead to disputes. To reduce the potential for disputes, the authors suggested contract documents make better provision for potential risk and provide more details about how the contractor is compensated if a risk event is encountered. Risk allocation is vital for the parties before commencing the construction projects. The risk is not only in site condition; it also includes the risk of lack of contract technical and responsibilities details, which the author aimed to discuss in this thesis. Another suggestion from the literature in the 1990s was to provide a detailed exploration report in every contract by a geotechnical engineer (Essex, 1996). By the turn of the new millennium, Hackett (2002) identified that disputes on construction projects were often caused by the failure of one of the parties to:

- 1) execute the activities as instructed and within the time frame;
- 2) communicate and expressing clearly;
- 3) Comprehend the full consequences of the instruction provided or received.

The contract is the first and primary document that each party will refer to when dealing with a dispute. The local law or the owner's preferences law will be the main law that will

govern the construction contract, and it is generally stated in the contract documents (Godwin, 2012). Jenkins & Stebbings (2006), found that parties to construction projects spend too little time discussing the provisions for disputes in contracts, and consequently, they often neglect to include dispute resolution clauses in their contracts. That said, in the new millennium, parties increasingly realised that risk on constructions projects should be allocated to the party best able to deal with it properly. However, Klee (2015) pointed out that, due to many construction projects' complexity, deciding who should bear the burden of risk and why is not always easy to determine. Some old factors were still at play, and disputes were just common, for instance, the pressure to finalise signing the contracts to begin executing projects; the parties not admitting that problems might occur in the future when negotiating a contract (Jenkins & Stebbings, 2006). Jin et al. (2013) stated that the disputes are unavoidable in the head contractor and subcontractor relationship.

Looking more closely at the Saudi Arabia context, in the decade before the 2000 millennium, Al - Hammad (1993) mentioned various factors that have an impact on the relationship between the main contractors and their subcontractors in the construction field, with the top 5 factors being:

- 1) Contractor's financial problems.
- 2) Lack of proper communication
- 3) Incomplete work-drawings or specifications
- 4) Delay in contract progress payment
- 5) Lack of construction quality work

By the turn of the century, risk allocation in Saudi Arabia was recognised as one of the main factor leading to disputes (Jannadia et al., 2000). The authors suggested that the owners needed to be convinced about the impact of allocating risk to contractors. They linked the practice to inflated bids by the contractors, as Contractors included contingency sums to cover the added risk. One of the dispute causes between the primary contractor and the subcontractor is the unfair risk allocation (Jin et al., 2013). Jannadia et al. (2000) also identified the increased use of partnering in the construction industry of Saudi Arabia, helping to shift parties from argumentative relationships to more cooperative ones. According to Jannadia et al. (2000), the partnering trend had helped stakeholders deal with

the problems more informally instead of going to court. However, they predicted that it would still take time to be a common practice in the Saudi construction sector.

A more recent study by Assaf et al. (2013) emphasised four variables that directly relate to the evolution of disputes on construction projects in Saudi Arabia:

- 1) Early involvement in the project's development from the project manager
- 2) Cooperation between the project team and the senior management of the contractor.
- 3) Cost performance evaluation by the client.
- 4) Contractor evaluation by the client

2.3.2 Different strategies to resolving disputes

Most minor disputes can be resolved amicably and friendly, but major disputes need to be considered seriously and negotiated promptly to avoid any cause of severe damage in the project (Hackett, 2002). This section will discuss the different strategies in resolving construction disputes, including some commonly used approaches in Saudi Arabia. When the negotiation fails, disputes shall be resolved via the normal procedures, starting with mediation, adjudication, arbitration, and litigation (Hackett, 2002). Treacy (1995) found that during the 1970s-80s the number of construction disputes in the USA more than tripled. The result was a massive increase in the length of time it took to resolve disputes, and this drove demand for Alternative Dispute resolution (ADR) methods. Goyal & McDonald (1996) advocated using an ADR method called the "Dispute Review Board", which consisted of representatives from each party in the project. This approach will be discussed in this thesis and check its use in Saudi Arabia. The board's idea was to monitor project progress and deal instantly with any disputes as they arose. Other ADR methods include; Adjudication, Mediation and Early Neutral Evaluation. For Treacy (1995), the advantages of using ADR compared to the two traditional methods for resolving disputes on construction projects (Litigation and Arbitration) include; effective case management, more confidentiality and saving in trial expenses.

Goyal & McDonald (1996) analysed a case study in the Metropolitan Water Reclamation District (MWRD) of Greater Chicago in 1981, revealing how the MWRD succeeded in

reducing delays and claims by applying an Aggressive Contract Administration policy (ACA).

The policies encompassed the following:

- Clear contract document
- Inspection and procedures to impose the contract terms
- Precise estimation of time and money needed to complete the work

Court (litigation) is another approach to resolve the dispute if the amicable way fails. Here is an overview of the juridical system in Saudi Arabia. Al-Samaan (2000), described the Sharia court structure used to resolve disputes. That structure consists of; Summary Courts, General Courts, a Court of Cassation and the Supreme Judicial Council. Proceedings before the Sharia courts are in Arabic, and documents submitted in support of the claim must be in Arabic. In the 1980s the Committee for the Settlement of Commercial Disputes handled all commercial disputes, but the committee was abolished in 1987. Commercial disputes were heard by the Board of Grievances since 1987. The Board of Grievances is an autonomous judicial body that was initially set up to adjudicate claims against government agencies, including disputes arising in connection with government contracts. Over time the board's role has expanded to include jurisdiction over most commercial cases. In most Saudi Arabian joint venture agreements, the board is often referred to as the dispute resolution organisation partners (Al-Samaan, 2000).

In Arab culture Gad et al. (2010) described their culture as a synchronism approach, which means that the time for this culture is flexible and the activities can be changed easily. When the dispute arises in this culture, it will be escalated and resolved by litigation and arbitration. On the other hand, Al-Samaan (2000) stated that mediation and consolation are commonly used to resolve disputes in Arab culture, especially in Saudi Arabia. Hence the author included the amicable cultural approach to examine in this research.

As per Tarin (2015), Islamic law is the only applied law in Saudi Arabia. If the dispute happens, Tarin (2015) described first the amicable approach shall be practised between the parties called "Sulh". The terminology Sulh originally comes from the "Quran" which is the first source of Islamic law. It means to reconcile and make an amicable statement between the disputants. If the disputes go beyond Sulh, then the dispute shall be forwarded to the Board of Grievances or other courts such as the commercial courts. The Board of Grievances

in independent administrative, judicial board applied for any legal actions or dispute, especially if the other counterparty is the government repetitive such the ministries in the Kingdom (Ansary, 2008). The Chamber of Commerce has suggested establishing a body of experts to help the court refer to the cases they are experienced in. Such an organisation will help the parties in the construction to choose an expert to resolve the dispute by mediation when they agree on that (Al-jazirah, 2004).

Delays in construction projects are one of the challenges that must be dealt with, and in Saudi Arabia. According to Alsuliman (2019), many public construction projects have been executed. As per the author, the causes of delays in public construction projects are grouped into different stages in the project; 1) causes before tender award, 2) during the tender award, 3) after tender award, and 4) general causes. On the other hand, Assaf *et al.* (2019) identified 29 causes of claims and disputes which, into five categories; 1) causes of claims refer to contractor, 2) claims that refer to the designer, 3) claims that refer to client, 4) claims that refer to all parties and 5) claims that refer to regulations. While in other research, Awwad *et al.* (2016), mentioned that the causes of disputes in the Middle East, including Saudi Arabia, are classified into types; 1) administrative, 2) contractual, and 3) cultural. As per Awwad *et al.* (2016), the administration type included failure to administer the contract and poor documentation management. Therefore, the author explored the common causes of construction disputes by asking the targeted audience in the survey and in the interviewee, as will be elaborated in the next chapters. While contractual and cultural types included that owner and contractor do not respect the contract's obligation and the local culture might impact the dispute settlement, respectively.

According to El-adaway *et al.* (2018), who conducted guidelines study for public projects in the USA and Saudi Arabia. The authors raised a concern that the public works (PWC) contract has not changed since the ministry of finance and national economy issued it in the 1980s. One of PWC's main aspects is that the risk allocation has not changed either and the risk should be the contractor's responsibility. Another issue that El-adaway *et al.* (2018) discussed is that PWC is issued for all construction works in public construction. Mirghani (2018) had also demonstrated the risk in different form as he explained the expression "Gharar" in Islamic law and linked it to construction contracts. The definition of Gharar as per the author means risk or uncertainty, and when the party exposes himself to Gharar, it

means he is more likely facing a risk ahead. According to Mirghani (2018), if the construction contract encompasses any form of Gharar, which is listed below, it is not allowed in Islamic law, and the contract becomes invalid. There are various forms of Gharar in construction contracts, and the author listed five types:

1. Lack of information in the soil test report
2. Uncertainties in quantities
3. Unanticipated ground conditions
4. Considerable differences in the contract price
5. Misusing of lump sum contract

From the five listed items above and according to what the researcher explained in the causes of disputes, it is clear that Gharar is one of the leading reasons for disputes in construction contracts.

According to Abdallah et al. (2019), the total of 15 consequences of Design Document's Deficiencies (DDD) can pertain to project, designer and contractor. Two of these consequences are related to claims and disputes besides the conflicts among parties. Abdallah et al. (2019) asserted that design errors and inconsistencies in drawings and specifications are causes of claims and disputes. In terms of the claims and disputes consequences of DDDs contribution, Abdallah et al. (2019) mentioned that it could lead to rework, and the dispute arises from that. Alsuliman (2019) supported this source of delay in Saudi public construction projects by identifying that lack of accuracy of specifications and drawings as the factor which usually occurs before awarding tenders. Recurrent disputes between parties in the projects and disputes on the project sites are factors of the delay, according to Alsuliman (2019). Awwad et al. (2016) distributed surveys in his research to rank the most common causes of disputes in the Middle East region and ended up with the two most common causes. Insufficient technical drawings and specification came 5th on the list. While the first common causes Awwad et al. (2016) revealed is information inaccuracy in the contract documents.

In Saudi Arabia, Alshahrani (2017) identified three categories of dispute resolution in the construction field in Saudi Arabia; 1) litigation, 2) arbitration, and 3) alternative dispute resolution (ADR). Medallah (2015) stated that Sharia courts could resolve construction

disputes. The research shows that construction disputes take almost 60% of the administrative courts' time, and most of that time is consumed in enforcing arbitral awards.

2.3.3 Starting along the road to understanding of disputes and their resolution in Saudi Arabia

At the beginning of this research, and based on the experience set out above, the author came up with a preliminary set of hypotheses to help frame this thesis's research. The reader will notice how, during this discussion, the author's thoughts and ideas about the construction industry in Saudi Arabia have evolved as the project has developed. The hypotheses were used to initiate the literature review, which broadly took a starting point of the 1950s. That starting point was chosen, as it marked a crucial period in Saudi Arabia, where legislation to deal with disputes was fundamentally changed (Karagianni, 2015; Schwebel, 2010).

In some of the earlier research reviewed for this thesis, authors found that the relationships between the contractor on a project, the designer and the client were often opponents, rather than partners (Feldman, 1972). Researchers considered that disputes in the 1970s and 1980s as per were increasing due to "fast track" methods being employed, which overlapped design and construction (Coulson, 1983). As research continued into the 1990s, Goyal & McDonald (1996) was typical in classifying the main causes of disputes into three categories:

- Changes in scope after commencement of works
- Extra work requested by the client
- Errors and omission in the design

In Saudi Arabia, several other factors that caused disputes were identified. Al - Hammad (1993) provided a detailed list of such causes, which included:

- a) Contractor's financial problems and inadequate cost evaluation by clients of contractors
- b) Lack of proper communication and cooperation
- c) Incomplete work-drawings or specifications
- d) Delay in contract progress payment
- e) Lack of construction quality work

Into the new millennium, Jannadia et al. (2000), suggested that contracts in Saudi Arabia too often involve the inappropriate allocation of risk. To which Assaf et al. (2013), advocated the greater use of early contractor involvement to mitigate disputes.

The interesting point noted by the author at this point was how strongly the historical review of disputes and their causes reflected his own experience. It seems then that the causes of disputes are quite clear and have changed little over time and that Saudi Arabia is not such an unusual context. This then set the scene for the author to start along with his grounded theory-based approach to building a deeper understanding of the causes of disputes and their resolution to propose solutions that may improve the systems operated in Saudi Arabia. That process started in 2016 and included engagement with several activities to build a broad and holistic understanding of the subject matter. The activity started with observational visits to three UK-based conferences focussing on commercial and contractual aspects of construction management (ARCOM 2016, NEC 2016 RICS 2016). These visits helped to identify contemporary issues in engineering management research and highlight areas for further reflection and investigation as the project progressed.

RICS Commercial Management in Infrastructure Conference 2016

The RICS 2016 conference was the first event attended by the author. This was a one-day event, which covered a broad range of factors causing disputes on infrastructure projects in the UK and common approaches to avoid or limit claims.

One of the main lessons derived from the conference was that an understanding of the practical realities of disputes and dispute avoidance measures is essential if commercial managers are to be effective in dealing with dispute events. Another lesson was that a holistic appreciation of the cost implications of engaging in a dispute and the subsequent dispute resolution process needs to be understood, as the cost is often higher than the parties expect. To address issues raised, the conference included a session about best practice in supply chain management and one exploring the benefits of early contractor involvement to maintain the collaborative approach during the project.

On reflection, this conference reinforced evidence from the literature and the author's own experience, that disputes are common in the construction industry. However, three important new ideas that the researcher took from this conference were:

1. Dispute costing – Is often underestimated, and the cost of the dispute resolution process itself is not often considered
2. Supply chains – supply chains and relationships with suppliers and sub-contractors can suffer in a dispute. Sometimes the supply chain is the cause of the dispute.
3. Dispute education – education about disputes and methods to resolve them is essential and should start early in a construction professional’s career

It was not clear if all the parties had fully estimated the cost of the dispute in which they were engaged. It was clear that the supply chain managed by the contractor would have been affected by the dispute. It is possible to infer that perhaps the parties lacked education and understanding of the need to ensure the contract included appropriate mechanisms for dealing with disputes as they arose on the project because the contract was verbal.

NEC (New Engineering Contract) Annual Seminar 2016

Shortly after the RICS conference, the author attended a conference about the New Engineering Contract (NEC) contract in the UK. The NEC is a type of template contract commonly used in the construction industry in the UK. This event's main focus was to examine the validity of dispute clauses in contract documents and explore links between a lack of specification detail and changes to the scope of works in projects. When listening to the presentations and discussions, the author was reminded of findings by (Feldman, 1972), that the specifications in construction contracts were often written by “sales representatives”, not the architect/engineer. It seemed that nothing much in that regard had changed in the 44 years between the research and the NEC conference.

The conference made clear the importance of substantial contract documents and how essential they are to have a thriving project environment with as few disputes as possible. The contract is the bible for the construction project, and it has to be well written, in detail, and followed by all parties. It was the main lesson that the author took from the seminar. A quote shared by the NEC event team seemed particularly relevant, specifically:

“There is so much more we can do. I know of examples of people putting the contract on the shelf once procured. That fills me with horror. We must select contractors on their ability to deliver the project’s strategic objectives, not services alone.” Beth West, cited by (HALEWOOD, 2016).

In the Saudi Arabia context, the lack of strong, explicit and written contract documents creates a scenario that often led to disputes. However, the quote above stressed that even if a contract was in place, the dispute might not have been avoided if it was just put on a shelf once procured. That latter point was more in alignment with the author's own experience, where despite the fact that contracts were in place, disputes still occurred. Perhaps the most important lesson taken from this event was:

- Familiarity with contracts – to avoid disputes, construction managers need to have in-depth and detailed knowledge and understanding of precisely what the contract documents include and refer to it often throughout the project.

Association of Researchers in Construction Management (ARCOM), the 32nd Annual Conference

Towards the end of 2016, the first year of this research project, the author attended the annual ARCOM conference in the UK. The conference was a much bigger event than the RICS and NEC events and had a great diversity of inputs from academia and practice-based professionals. The author had a chance to discuss his research with other participants and attended several presentations about dispute causes and dispute resolution approach. There was a four months period separating the RICS and NEC events and this conference. During that time, the author reviewed his ideas about construction disputes and dispute resolution. In particular, during the ARCOM event, he tried to gather data about the use of non-adversarial and adversarial approaches to resolving disputes. That was driven by Hackett (2002), who stated that the minor disputes could be resolved amicably. The parties should negotiate the major disputes to avoid any damage that might happen in the project. In particular, the author sought evidence to support claims by Hackett (2002), that if negotiation fails, disputes are resolved first by mediation, then by adjudication or arbitration and finally by litigation. Interestingly, the conference seemed to strengthen these ideas about resolving disputes. The author had a chance to discuss these topics with expert presenters, who worked in the dispute resolution sector, and had various backgrounds. Some experts were lawyers, and others were construction arbitrators; some even had the experience of working in the Arabian Gulf area, such as Dubai.

Reflecting on the experience of the ARCOM event, one of the main concepts the author learned about, was:

- Use a Dispute Review Board (DRB) - Experts at the conference advocated the use of a DRB, which consisted of representatives from each party in the project. The idea of the board was to monitor project progress and deal instantly with any disputes as they arose and reflected some of the recommendations by (Goyal & McDonald, 1996).

Looking at the Saudi Arabia context, it would seem that a DRB is what was being used to help resolve the dispute in Saudi Arabia, and that is a very positive finding. It shows that the Saudi Arabia system includes elements of good practice, as advocated in other parts of the world, or at least it is following good practice from where construction dispute systems are well researched and regularly reviewed and updated.

As this research project moved into its second year of development, the author began to develop his strategy for further investigation into disputes. That effort included presenting ideas derived from the published research at two international conferences, one in Poland and one in Saudi Arabia (Alsofyani, Fox and Miles 2017). He also started collecting preliminary data in a pilot study conducted in the UAE.

Seventh International Conference on the Constructed Environment and the Constructed Environment Research Network, Poland, May 26-27 2017

At the Poland conference, the author proposed that there was a need to investigate the process of coordinating information flows between the client, consultant and contractor on the project (Al - Kharashi & Skitmore, 2009; Fenn et al., 1997; Rauzana, 2016). He suggested that insights gained from the literature, when linked to his own experience, pointed to the likelihood that a lack of information coordination on projects in Saudi Arabia leads to many disputes. A second proposal stressed the need to assess how far the level of knowledge about dispute resolution, in project management personnel, needs to be improved. That proposal was linked to the need for methods which can enable disputes to be identified and resolved early and amicably (Lee et al., 2016; Shamir, 2016). Drawing on his experience, the author suggested that the lack of expertise is a reason why many disputes end up before a judge in the Saudi Arabian court system. Added to that, there was a potential problem in court cases, as the main parties handling the case (Lawyers and judges) lack technical

construction expertise. However, he had learned that Saudi Arabian Chambers of Commerce had their proposal, namely to establish a body of experts to help the courts to review complex and technical construction disputes (Karagianni, 2015). Research was therefore needed to investigate how far the Chambers of Commerce idea had gone and how effective it was perceived to be in helping to resolve disputes.

Pilot study exercise, Dubai, 1st December 2017

The focus group discussion in the pilot study provided a number of interesting insights about the causes of dispute in the region, many of which reinforced earlier findings from the literature. The main points from the discussion that linked well to finding from the literature included:

- The most common causes of disputes are time delays and scope change by the client
- Time delays are common, as contractors often present overly optimistic programmes to achieve a deal
- Scope changes are also common, as projects are rushed into construction before the design and specification is complete
- Small disputes are often resolved amicably, but large disputes almost inevitably end in litigation
- Disputes that go to litigation are contested as far as possible – right to the end
- Contractors do not help, by failing to engage lawyers in the drafting of contracts, hence disputes resolution clauses are often poorly constructed
- Most disputes take about two years to resolve

From these points, the Author could conclude that it was essential to verify if time and scope change to projects were, in fact, the main causes of disputes in Saudi Arabia. Besides, it was clear that the research needed to assess if reasons for the delay were linked to the contractor's overly optimistic programmes or to clients rushing out the project before designs were complete. In addition, there was a need to investigate the suggestion that the choice of amicable methods of resolving disputes or choosing to go to litigation, was linked to the scale of the dispute. Further, the claim that it can take up to two years for disputes to be resolved also needed investigation. Finally, and a good suggestion was that lawyers

should be engaged in drafting construction contracts. In relation to the latter point, the author was not familiar with this practice and decided to investigate further.

Additional insights from the discussion that were not well covered by the published research included:

- There is a chronic problem of weak decision-making, especially in the public sector (possibly due to a fear of making a wrong decision and getting fired).
- There is no clear hierarchy of decision-making authority, so individuals do not know who has the authority to make a decision and where the boundaries are
- Decisions are often passed to a third party
- FIDIC contracts are frequently used, but clauses relating to dispute resolution using mediation etc. are often deleted
- The “Q construct” and “Civil Code” in the region have helped to try and create a more precise system for dealing with disputes, but they need to be appropriately written into contracts to work effectively

Weak or unclear decision-making processes and the act of passing the decision to third parties had not previously been considered by the author. So, research is needed to see how prevalent these feeling ran in the Saudi Arabia construction industry. In addition, the idea that dispute clauses are considered and then deliberately deleted was not something the author had found in published research, so there is a need to investigate further. Finally, the author was not familiar with the “Q construct” and “Civil Code”, and identified a lack of research that has investigated how those systems are applied in Saudi Arabia.

2.4 Construction disputes and the arbitration process

As mentioned in the previous section, there are many strategies to resolve disputes when they arise on construction projects, and arbitration is just one method. The previous section presented a general overview of disputes resolutions techniques, so this section will explore those techniques in more detail to help illustrate how the Arbitration process fits within the overall system of dispute resolution. Arbitration has been chosen by the author as a point of focus for this research because, in Saudi Arabia, it is the main method used to resolve disputes, other than litigation. This section will also explain how the Arbitration process in Saudi Arabia fits within a broader legal framework. The history and development of

legislation relating to the use of Arbitration in Saudi Arabia will also be elaborated to identify lessons learned from past research about the efficiency and effectiveness of the Arbitration system in Saudi Arabia. The analysis in this section will identify gaps in the existing knowledge about the use of arbitration, especially in Saudi Arabia, and reveal how this thesis intends to address those gaps, adding new levels of knowledge and understanding to this field of study.

2.4.1 The legal system in Saudi Arabia

"The courts shall apply to the cases heard before them the provisions of the Islamic Sharia, in accordance with what has been established by the Book of God and the Sunnah, and the regulations enacted by the Governor that do not contradict the Book of God and the Sunnah, and shall comply, in hearing procedures, with the provisions of this law."

(Vogel, 2000)

The above quote emphasises that law in the Kingdom of Saudi Arabia is based on Sharia. Sharia law is detailed in the Kingdom's Principle Rules of Governance, which sets out its judicial influence on the country and the rules and procedures the Judicial system must follow (Saleem, 2012). There is a complex court structure (figure 2.1), with the role of the different courts is described as follows:

Supreme Judicial Council – Its role is to monitor judicial decisions taken by lower courts and review any King's regulations (Ministry of Justice, 2017).

Courts of Appeal - These courts' primary function is to look at judicial decisions made by the lower courts. There are two courts of appeal in Saudi Arabia; one is in Mecca to hear appeals from first instance courts in Western Provinces. The other one is located in Riyadh to listen to appeals from instance courts in Central and Eastern Provinces (Ansary, 2008).

First instance courts - These courts are located in every city and governorates in the kingdom and can hear any case that falls within its specialist area of jurisdiction (Ministry of Justice, 2017). These courts are classified into five types:

1. General courts
2. Criminal courts
3. Personal Status Courts

4. Commercial Courts
5. Labour courts

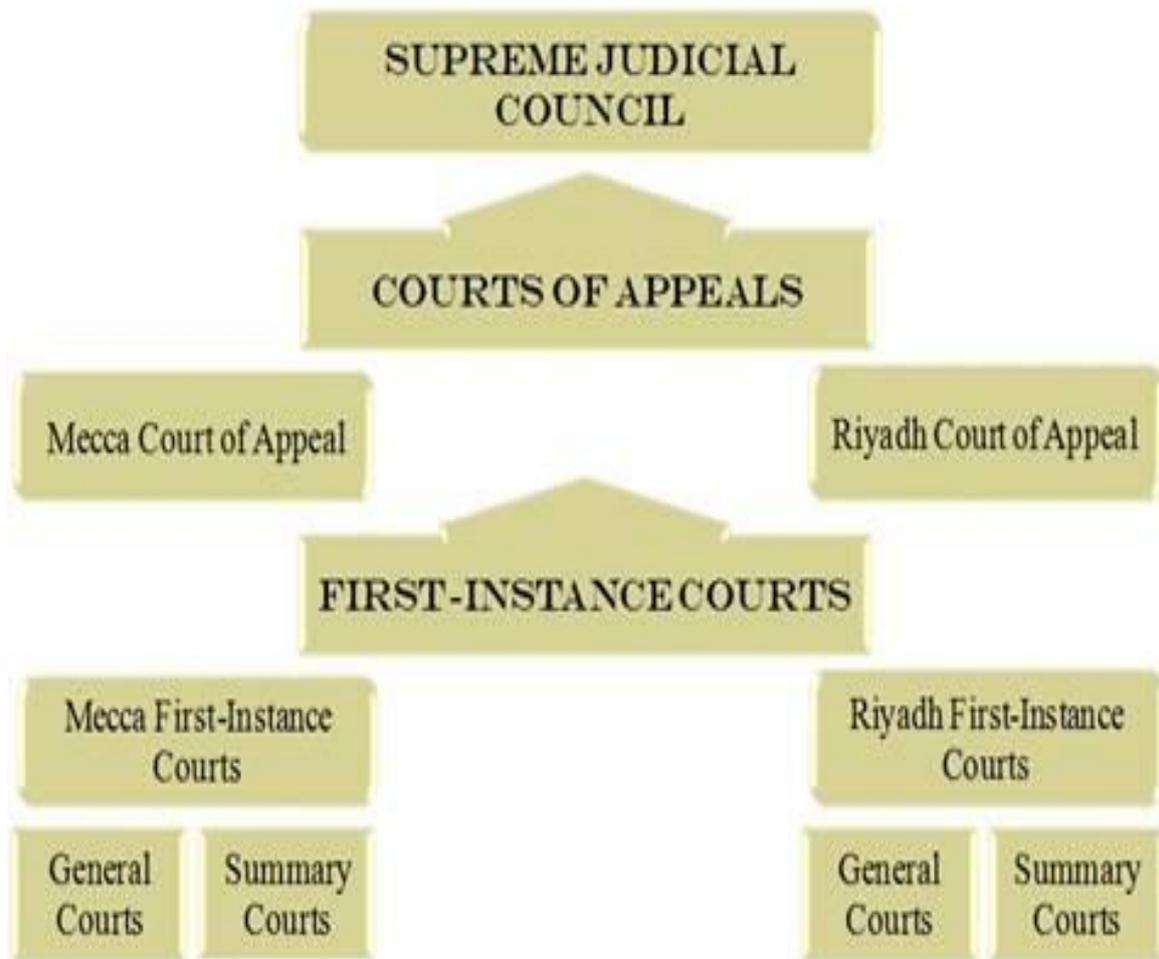


Figure 2. 1 Structure of the New Courts System Ansary (2008)

Al-Samaan (2000) explained that the sharia courts consist of summary courts, general courts, a Court of Cassation, and the Supreme Judicial Council. Proceedings before the sharia courts are in Arabic, and documents submitted in support of the claim must be in Arabic. Thus, only Arabic translations of the non-Arabic documents are permissible. He added that the Board of Grievances is an autonomous judicial body and possesses exclusive jurisdiction over administrative cases. The Board was initially set up to adjudicate claims against government agencies. These include disputes arising in connection with government contracts (including contracts of a commercial nature), administrative decisions, and others. Since 1987, and due to the abolition of the Committees for the Settlement of Commercial Disputes and their jurisdiction transfer to the Board of Grievances. The Board's jurisdiction has been broadly expanded to cover all commercial disputes within the territorial domain of

Saudi Arabia. In practice, the Board has been referred to as the dispute resolution machinery in some joint venture agreements, and articles of association of joint companies incorporated by foreign and local partners (Al-Samaan, 2000).

2.4.2 Arbitration as a means of resolving disputes on construction projects

In this section, a brief description will be provided for different dispute resolution methods before delving into arbitration and its effectiveness. Adversarial dispute resolution methods generally fall into three categories – Adjudication, Arbitration or Litigation (Chau, 2007). The common feature of these methods is that if the parties wish to seek a binding decision and pursue a dispute beyond the contract administrator's decision-making powers. They may appoint counsel and have their dispute heard in a formal (often public) setting. The process is based on argument, point-scoring and confrontation and rarely lead to amicable settlements (Jaffar et al., 2011). It is also a costly and often lengthy process.

Adjudication – For construction projects in the UK, the Housing Grants, Construction and Regeneration Act (HGCRA) of 1996 offers every party to a construction contract the right to refer a dispute to adjudication. One party must serve a written notice on the others in the dispute and send a copy to the adjudicator (appointed by the professional institution). The adjudicator may demand documents from the parties, appoint expert advisors, make site visits and meet with the parties. Within a fixed period (28 days), the adjudicator must reach a decision, and the parties are jointly responsible for meeting the adjudicator's fees and expenses. The adjudicator's decision is binding until overturned by an arbitration ruling or court decision (Born, 2011).

Arbitration – In the UK, the 1996 Arbitration Act requires that an appointed arbitrator first verify a valid arbitration clause within the contract. An arbitration panel has been properly constituted, and that the dispute has been appropriately referred to arbitration. This is to prevent the parties from claiming that the arbitrator has no jurisdiction over the dispute. The arbitrator can dismiss a claim if a party obstructs or delays proceedings or may continue with a hearing in the absence of a party or order a party to comply (enforceable in court). The arbitrator has significant powers and can award costs to one or other of the parties. Appeals are referred to as the High Court (D. A. Stephenson, 2001).

Litigation – In all countries, the main consideration here is that a court should hear the case. The UK County Courts can deal with claims to specific financial limit, whereas the High Court has several divisions in which a case can be heard. The UK's Queen's Bench Division of the High Court includes the "Technology and Construction Court", which hears most civil engineering and construction disputes. Beyond this, UK parties may appeal to the Court of Appeal. Litigated remedies may include a "summary judgement" whereby the judge makes a decision based upon documentary evidence alone. An "interim payment" may be enforced if the court can be convinced that the party is likely to receive a substantial sum (if the final decision is not as significant as the interim payment the money must be repaid) (Alshahrani, 2017; Lee et al., 2016).

Many Non-adversarial or Alternative Dispute Resolution (ADR) options have been developed to address the adversarial and often costly system of adjudication, arbitration, and litigation. These ADR processes are seen as an intermediate step between having an argument or disagreement and referring the matter to court. It is a voluntary process that can be pulled out at any time. The decisions are not binding, and the parties are in direct control of their own dispute (Danuri, 2012; Li & Cheung, 2016). Some common ADR methods are:

Conciliation – the conciliator does not take sides, take decisions or make judgements. He seeks to establish common ground between the parties and would generally talk to the parties separately and in confidence, only bringing them together for an open discussion after some while (du Preez, 2014; Morgan, 2005).

Quasi-conciliation is similar to conciliation but starts when one party alone invites the conciliator to offer advice on the dispute. The conciliator may then make recommendations to the party on how to proceed. If the other party follows suit, the two conciliators may meet together to compare findings and draw conclusions (McAndrew, 2012).

Mediation – this process is again similar to conciliation, but if the parties cannot decide, the mediator will make a recommendation (Chong & Zin, 2012).

Private enquiry – this procedure is more common for complex technical disputes or when issues in dispute are sensitive. It involves the appointment of an independent specialist professional and can lead to very speedy results as the appointee can quickly ascertain the facts and arrive at a decision (Mackie & Mackie, 2013).

Mini-trial – Senior executives from the disputing parties form a panel in front of which the parties will present their cases. The panel can then negotiate until they reach a decision (Lee et al., 2016).

Al-Samaan (2000) stated that in Arab culture, especially Saudi Arabia, mediation and conciliation is commonly used to resolve disputes. Whereas Gad et al. (2010) found that disputes in Arab cultures are often resolved by litigation and arbitration. For Jannadia et al. (2000) contract administration measures that are often used in Saudi Arabia to help dispute avoidance include; careful consideration of contract risk allocation, dispute clauses in contracts. It also includes: engaging in team-building exercises, provision of neutral arbitration clauses or binding arbitration clauses. Partnering in the Saudi Arabia construction industry has been used to shift the parties to a better team working and cooperative system of work (Jannadia et al., 2000). Partnering will take some time to be a common practice in Saudi construction projects, as contractor mistrust is still quite a significant issue.

2.4.3 Advantages and disadvantages of arbitration

The arbitration process is usually faster than the litigation (going to the court), so the disputants often choose arbitration (Ghannam, 2016). Jannadia et al. (2000) reinforced that view, stating that arbitration has advantages over litigation in terms of its lower cost and quicker solution and times. However, for Ghannam (2016) the main advantage of arbitration is its ability to help maintain trust and a good relationship between the parties.. Moreover, some contractual projects are sophisticated and need specialists in certain areas, which is why the parties prefer arbitration over the litigation approach. For Fletcher (2012), the advantages of the arbitration process were the following:

- Neutrality: it is crucial that the parties will be confident that the arbitration should be independent wherever the arbitration occurs.
- Confidentiality: Most of the clients do not wish to disclose their cases.
- Enforceability: it is the most important benefit of the arbitration and what makes commonly used.

Although arbitration has these advantages, Fletcher (2012) research found that the awareness of its usefulness was a weak point in Saudi Arabia.

According to Fletcher (2012), arbitration's flexibility and adaptability enable the parties to bring the most suitable procedure to bear in efforts to resolve disputes. Gaitskell (2005) mentioned that arbitration had become a helpful approach to resolve disputes in countries like Singapore, New Zealand and Australia. To that, Britton (2008) described how adjudication, arbitration and litigation are the main methods used for dispute resolution in the UK construction industry. However, Britton (2008) found that adjudication has overtaken arbitration becomes the first option to resolve disputes on construction contracts in the UK. Adjudication allows disputes to be resolved on a provisional basis and to keep the disputants' relationship preserved. Agapiou (2013) and Britton (2008) found similar attitudes in relation to adjudication, stating that adjudication is preferable to arbitration by being better able to resolve disputes by negotiation or by allowing recourse to other dispute resolution approaches. Regarding the latter point, Britton (2008) added that some adjudication cases were eventually resolved via arbitration. As such, Arbitration has kept its place internationally as the first choice for resolving construction disputes (Britton, 2008).

Fletcher (2012) described arbitration's main disadvantages as increasing delays in the process and rising costs. Delays occur when reaching the final hearing and in the time taken after the final hearing to close and submit the final award. Fletcher (2012) also found that a significant proportion of arbitration cases take two years or more to reach a final decision. Ghannam (2016) discovered that many arbitrators lack legal training and judged that the lack of legal knowledge had tended to slow the arbitration process. In such cases, disputants may wish to refer the case to litigation, where judges in the court system are more experienced and familiar with the law than the arbitrators. As the delays associated with arbitration grow, so the time and cost for arbitration, in some cases, is becoming similar to that of litigation and thereby undermining many of the perceived advantages of the arbitration process (Ghannam, 2016).

2.4.4 Development of arbitration law in Saudi Arabia

It is vital to provide an introduction of arbitration evolution in Saudi Arabia. In Saudi Arabia, Arbitration law development can be traced back to the 1950s and a dispute involving the largest Saudi Arabian company, the Arabian American Oil Company (ARAMCO). ARAMCO was established in the 1930s to explore and produce crude oil in the Kingdom of Saudi Arabia. The company was based on an initial concession agreement between the

Government of Saudi Arabia and Standard Oil Company of California (SOCal). As part of that agreement, ARAMCO has exclusive rights to explore, drill, extract, manufacture, transport and export the oil within Saudi Arabia for 60 years (Schwebel, 2010). In 1954, as the author stated, the Government of Saudi Arabia made a contract with Aristotle Onassis (a leading shipping business owner) to form a new business venture in Jeddah, called the Saudi Arabian Maritime Tankers Company (SATCo).

The main function of SATCo was to transport the oil via sea, and the company was expected to have a licence to do this for a period of 30 years. A Royal Decree approved the SATCo agreement, and the government informed ARAMCO to comply with it Schwebel(2010). ARAMCO refused to engage with the new contract involving SATCo, as it conflicted with their existing exclusive agreement with the Saudi Arabia Government. Schwebel (2010), described how the dispute was referred to an international tribunal to provide judgment on the case. However, the agreement between ARAMCO and the Government stated that the local law Islamic law was the governing law for dispute resolution; unfortunately, the local Islamic law was found by the tribunal to be inadequate for resolving sophisticated commercial disputes like the ARAMCO case (Schwebel, 2010). After 8 weeks and 42 sittings of arguments, the tribunal judged that ARAMCO did not have to comply with SATCo agreement, as their prior exclusive agreement with the Government of Saudi Arabia took precedent over the later and separate agreement between the Government of Saudi Arabia and SATCo (Schwebel, 2010). This defeat in a commercial dispute led to a drive-by the Government of Saudi Arabia to create new local laws relating to Arbitration involving public sector contracts in the country.

Saleem (2012) stated that the ARAMCO case was not the only reason that led the country to introduce arbitration law. Another reason was mistrust about foreign investors' intentions, who were choosing different legal systems to hear disputes, systems that were perceived to benefit the international parties. But, the ARAMCO case was the spark that led to a dramatic change in attitudes towards arbitration in Saudi Arabia (Saleem, 2012). That said, many parties needed to be convinced that the idea of arbitration is not against Islamic law. Notably, at the time, there were many similar cases to the ARAMCO case, with similar experiences relating the inadequacy of Sharia law in settling disputes.

Consequently, those favouring changes to the local law were able to develop and propose more rigorous arbitration rules. These arbitration rules were still generated from the Islamic law base but provided a modern dispute resolution system that was more compatible with complex and often international commercial disputes (Saleem, 2012). Many parties criticised the first arbitration law, which was issued in 1983, stating that it was insufficient and inconsistent with arbitration rules in different countries. One example of such an inadequacy was Article 3, which stated that if any governmental organisation was party to the arbitration agreement, the King himself has to approve it in order for it to be valid (Saleem, 2012).

In 2012 arbitration law in Saudi Arabia underwent a significant change. Altheyabi (2013) stated that the old arbitration law was too brief in many of its articles. He added that the old law articles were not appropriately classified according to which subjects belonged to specific arbitrational procedures. In contrast, the new arbitration law has avoided such ambiguity by categorising different arbitration topics and allocating each to its arbitration processes. The new arbitration law details 12 articles outlining the definition of an arbitration agreement and clearly defines an arbitration tribunal's meaning. The new articles clearly explain the arbitrator's role and the procedures for choosing the arbitration committee members. These details were not stated in the old arbitration law. As such, the new arbitration law provides a much better understanding of how the arbitration process should be used to resolve disputes in Saudi Arabia (Altheyabi, 2013). Alrajaan (2017) stated that there was room for improvement on the new arbitration law 2012, such as the regulations about government bodies' restriction to enter an arbitration agreement. However, Alrajaan (2017) declared that this restriction was a consequence of ARAMCO dispute and arbitration case.

2.4.5 Starting along the road to develop and understanding of the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia

As the author's experience introduced at the beginning of the thesis, the author has considerable years of experience in the construction industry of Saudi Arabia. That experience includes involvement in disputes and approaches to resolve them. However, the author was not involved in any arbitration process in the projects on which he worked. That

was because the projects lacked arbitration clauses in their contracts. Therefore, the author set the following hypothesis at the beginning of this research:

Despite the fact that the law on arbitration is well established in Saudi Arabia, there is very little evidence of research assessing the effectiveness of the arbitration process in changing construction industry culture and reducing the frequency and severity of disputes in the industry. There is a pressing need for new research that aims to assess how the arbitration process can be harnessed to apply new learning about construction industry culture to mitigate the future frequency and severity of disputes in the industry

That hypothesis needs verification and testing along this research journey. The author began that process by reading about the legal system in Saudi Arabia. The legal system in Saudi Arabia is based on Islamic law [Sharia]. Sharia law is detailed in the Kingdom's Principle Rules of Governance, which sets out its judicial influential on in the country and the rules and procedures the Judicial system must follow (Saleem, 2012). The author learned that the first arbitration law in SA was issued in 1983 (Sayen, 2003) and was then heavily amended in a second version, issued in 2012 (Nesheiwat & Al-Khasawneh, 2015). that the published literature has revealed that the second edition of the law has had a significant impact, especially the change that made arbitration decisions contractually binding, but there are gaps that further research need to address..

RICS Commercial Management in Infrastructure Conference & NEC (New Engineering Contract) Annual Seminar 2016

The aim in attending these seminars was to learn how arbitration is used in the UK to resolve disputes. One of the sessions at the RICS conference was about claims and dispute avoidance. The participants discussed how the parties could collaborate to avoid disputes. However, no sessions at the RICS conference explicitly dealt with the arbitration. The author was surprised, but discussions with other delegates gave him the impression that it was not because arbitration was not used in the UK. Instead, the author was struck by the opposite inference that arbitration in the UK is so common and its rules for the application so well understood that delegates at the conference did not see the need to discuss the topic.

The author hoped that at the NEC annual seminar, he might engage in some more informative discussions. At the NEC seminar, the author learned that the NEC conditions are a relatively new suite of contract forms, specifically designed for the construction industry. The suite has been modified three times since it was first published, just twenty years ago. Some sessions in the seminar presented examples of their success in applying NEC3. The periodic review of the NEC form was stated as being one of its strength, and the author observed several discussions about how the contract could be further improved. Ultimately, the 4th edition (NEC4) was published in 2017, and several of the issues raised at the 2016 NEC seminar were incorporated into NEC4. Some of the NEC4 amendments included changes to the dispute resolution and dispute avoidance provisions (NEC 2017). What the 2016 discussions pointed to was a need to emphasise engagement in amicable methods of dispute resolution before engaging in more adversarial approaches. The seminar supported the idea of a Dispute Avoidance Board (DAB), similar to that found in FIDIC contracts. But there were concerns raised that the system could be open to abuse if not managed effectively. The author was surprised to learn that the NEC suite also includes a form of contract for the people appointed to resolve the dispute. The author was also surprised to learn that, ever since it was published, efforts to avoid disputes and promote partnering have been at the core of the contract form's philosophy. So, although not very informative about the arbitration process, the NEC seminar did highlight how important the contract document is in setting out not just what dispute resolution procedures can be used on the project but also can include advice on how to avoid disputes by promoting partnerships.

Association of Researchers in Construction Management (ARCOM), the 32nd Annual Conference

At the Association of Researchers in Construction Management (ARCOM) 32nd Annual Conference, the author listened to two presentations that finally started to provide some detailed insights about the arbitration process. First was a paper that explored the potential of bias in multi-tier construction dispute resolution processes (Lee et al., 2016). The second was a paper investigating claims management under the Gulf Cooperation Council (GCC) construction contract (Whaley, 2016)

According to Lee et al. (2016), the private sector in Hong Kong is quite familiar with a form of contract that includes arbitration. In contrast, the public sector general conditions of the

contract had only had an arbitration clause since 1999. This paper was advocating a formalised 4-tier dispute resolution approach that includes, in sequence: engineer's decision, mediation, adjudication, and then arbitration before litigation. The issues were that both arbitration and litigation are expensive and time-consuming processes and should be avoided, but the disputing parties too easily skipped the non-adversarial steps. Hence the paper's authors wanted all steps to be mandatory. Interestingly for the author of this research, the paper explained that Hong Kong had an Arbitration ordinance from 2011, which explains the role of the arbitrator. Many of the points raised in the paper about the situation in Hong Kong had similarities to the situation in Saudi Arabia; hence the author considered that proposed solutions might be worth considering in his country.

Whaley (2016) did not explain the arbitration process in great detail. But the author was struck by his comment that disputes under the "GCC construction contracts" were epitomised by obstinate parties, powerful clients, partial client representatives and contractors who are often unacquainted with the specialist skills and lack the resources needed to settle claims effectively. That sounded so familiar to the author's experience in Saudi Arabia. In addition, Whaley (2016) went on to say more that had very strong echoes to the practice in Saudi Arabia, namely:

"It is not abnormal for employers (via their certifiers) to reject claims as a policy, irrespective of entitlement, and then to withhold substantial payments pending final settlement of accounts. It is also common for parties to continue negotiating the final account of a complex contract several years after completion of works at the site, for contractors to ignore contractual rights to invoke a neutral determination through arbitration, to accept the lack of momentum towards settlement as the status-quo, and rely instead on local agents to reach a settlement outside the framework of the contract." (Whaley 2016, p.220)

Unfortunately, despite setting out a scenario that had strong parallels with the situation in Saudi Arabia, Whaley (2016) did not elaborate on how arbitration could be used as a tool to help resolve disputes. Here again, the author reflected on how difficult he was finding it, to locate and engage with opportunities to understanding the role that arbitration plays in the

resolution of disputes on construction projects in Saudi Arabia. In that regard, his hypothesis appeared to be valid.

Seventh International Conference on the Constructed Environment and the Constructed Environment Research Network, Poland, May 26-27 2017

At the seventh International Conference on The Constructed Environment and the Constructed Environment Research Network, Poland, the author was able to present some of his newly developed understanding about the arbitration process and the role that it plays in the resolution of disputes on construction projects in Saudi Arabia. Summing up lessons he had learned so far, that author explained that parties in construction projects seem to spend little time discussing the provisions of disputes in their contracts and sometimes they do not include dispute resolution clauses in their contracts. Different factors may lead to this, for example; pressure to finalise signing the contracts and secure a contractor during contract negotiations may lead parties insufficient time to consider that problems may arise in the future and how they will resolve those problems (Jenkins & Stebbings, 2006). Disputes often arise when a contractor submits a claim or when a client judges that the work of a contractor has not been done properly. In such cases, the contract is the first document that each party will refer to in order to address the dispute and the local law, or the contract's stated law will be the law that will govern how the dispute is managed (Godwin, 2012). According to Klee (2015), construction projects are naturally prone to disputes, and dispute resolution systems are strongly recommended to be drafted in the contract documents. For Hackett (2002), most minor disputes can be resolved amicably and in a friendly manner, but major disputes need to be considered seriously and negotiated promptly to avoid severe damage to the project. As a consequence, when the negotiation fails, disputes should be resolved using a four-step process, involving: mediation, adjudication, arbitration and finally, litigation.

In his presentation, the author explained that in Saudi Arabia, there is an arbitration law that is governed by Islamic law, which regulates the whole country. The arbitration law (Tahkeem in Arabic) was introduced in 1983, then revised and reformed in 2012 (Tarin, 2015). According to Al-Samaan (2000), the sharia courts consist of summary courts, general courts, a Court of Cassation, and the Supreme Judicial Council. Each court's responsibilities will be described. Proceedings before the sharia courts are in Arabic, and documents

submitted in support of the claim must be in Arabic. Thus, only Arabic translations of the non-Arabic documents are permissible. The Board of Grievances is an autonomous judicial body and possesses exclusive jurisdiction over administrative cases. The Board was originally set up to adjudicate claims against government agencies. These include disputes arising in connection with government contracts (including contracts that are of a commercial nature), administrative decisions, and others. Since 1987, and as a result of the abolition of the Committees for the Settlement of Commercial Disputes and the transfer of their jurisdiction to the Board of Grievances, the Board's jurisdiction has been broadly expanded to cover all commercial disputes within the territorial domain of Saudi Arabia. In practice, the Board has been referred to as the dispute resolution machinery in some joint venture agreements, and articles of association of joint companies incorporated by foreign and local partners. All of this infrastructure in Saudi Arabia helps to make arbitration an effective method for the resolution of disputes.

The author considered findings by Gadde & Dubois (2010) that in Arab culture when a dispute arises, it will be quickly escalated and resolved by litigation or arbitration. On the other hand, Al-Samaan (2000) stated that in Saudi Arabian culture, mediation and conciliation are commonly used to resolve disputes. A key feature of the Saudi system is the engagement of construction expertise to help judges make decisions on construction project disputes. That feature is clearly stated in Saudi Arabia's Arbitration Law and Implementing Regulations. To assist the process, the author learned that Saudi Arabia's Chambers of Commerce had established a network of experts to help the courts and arbitration tribunals access expert advice (Al-jazirah, 2004). Clearly, arbitration is one of the main dispute resolutions approaches in Saudi Arabia, and the author proposed to use the arbitration process as a means to investigate links between contractual disputes and project cultures in the construction industry of Saudi Arabia. He admitted that he had found little evidence in the published literature to explain links between contractual disputes and constituents of project cultures and judged that there is a need to deepen current understanding of the role that culture plays in the evolution of project disputes. He proposed that this research may serve to illustrate how the law and regulations, in relation to dispute resolution, could be applied more effectively.

Pilot study exercise, Dubai, 1st December 2017

Points raised by the focus groups, with specific reference to arbitration included:

- All Gulf states have a different method for dealing with arbitration
- In Saudi Arabia, the link to Sharia law is stronger than in many other regional states
- Many states, other than Saudi Arabia, are more familiar with international rules of arbitration
- In Saudi Arabia, there is an arbitration law, but the court system is still working to understand precisely how to implement it
- In resolving disputes using arbitration, the skills and experience of the arbitrator is a significant factor in the success of the process
- The regional systems do not allow for the verbal presentation of the case; all must be done in writing, which makes the process less effective as it can be challenging to explain in writing details of a technical dispute
- A key pitfall in many contracts is that powers to appoint an arbitrator are often not clearly expressed
- When arbitration is not used, decisions can be made quite quickly using local courts, but the quality of the decision is not as high, so many parties prefer to risk the longer and more expensive arbitration process.

The author considered these outcomes could be applicable in Saudi Arabia. Such as, the lack of familiarity with international rules of arbitrations in Saudi Arabia. Which led some international contractor to conduct the arbitration outside the country. In addition, the suggestion that some judges in Saudi Arabian courts are not familiar with arbitration implementation needed examining in more detail. Finally, the suggestion that that skills and competence of the arbitrators are essential for more effective arbitration in Saudi Arabia represents a gap in current research.

The International Engineering Conference and Exhibition, Riyadh 4-7 December 2017

At the conference, the author presented his ideas about drawing attention to the arbitration process in construction as one dispute resolution approach that can act effectively act as a lens through which construction culture can be studied. The ideas were around which culturally engaged practices that aim to help mitigate and resolve disputes can be framed. Building on lessons learned from the Poland conference and the Dubai focus groups, the

author explained his understanding that arbitration is a process that is often used to resolve disputes. 2.4.6 Summary

In the introduction chapter, the author set out a working hypothesis, which asserted that, despite the fact that the law on arbitration is well established in Saudi Arabia, there is very little evidence of research assessing the arbitration process or its effectiveness in reducing the frequency and severity of disputes in the industry. The author contested that there is a pressing need for new research that aims to assess the arbitration process. In relation to the initial point, this section has highlighted how arbitration law in Saudi Arabia has been evolving, from its evolution in response to the Saudi ARAMCO case in the 1950s to a major revision of the law in 2012. However, the main premise of the hypothesis remains true, as the literature review found very few examples of research assessing the arbitration process and/or its effectiveness in reducing the frequency and severity of disputes in Saudi Arabia. As such, the final point in the hypothesis remains valid, and there is still a pressing need for new research that aims to assess the arbitration process in Saudi Arabia.

2.5 Conclusion and summary

This chapter set out to provide the reader with an analysis of previous literature and studies about construction culture, dispute causes and arbitration. It began by defining culture in the construction context and the leadership culture within organisations was elaborated. The author also analysed historical causes of disputes in construction sectors across the globe as well as in Saudi Arabia. Finally, the author analysed the arbitration process within the Saudi Arabian legal system. Much of the analysis was contextualised within a reflective analysis of the author's own research journey, attending seminars and presenting his ideas at conferences. This section will synthesise the lessons learned from the analysis.

In relation to culture, what the literature review and the author's own research activity reveals is that there is a need for research exploring the Saudi Arabian public sector construction procurement system's culture, to learn if the culture helps or hinders the creation and resolution of disputes in the industry. There is also need to learn if and how the consultants and contractors in the construction industry of Saudi Arabia align with cultural typologies and how an understanding of the cultural typology reveals lessons about the development and resolution of disputes on construction projects. Furthermore, what is not

clear in the current published research, is data about how well "project cultures" are understood in the Saudi Arabian construction industry and how effective the project cultures in Saudi Arabia are in dealing with conflicts as they arise. There appears to be a lack of case studies exploring the impact that culture at the project level is having on the creation and resolution of disputes. Specifically, there is a need for research to learn the extent to which the legacy of the ARAMCO case continues to dictate the culture on construction projects and to assess the extent to which the legacy helps or hinders the ability of the industry to reduce the level of conflict on construction projects in Saudi Arabia.

Chapter 3 - Methodology

3.1 Introduction

Chapter 1 of this thesis explained that this research aimed to investigate links between contractual disputes and project culture in the construction industry of Saudi Arabia. The contractual disputes specify the disputes resulting from the contractual relationship between the parties in the construction industry in Saudi Arabia. The contractual agreement either between the client and the contractor or between the contractor and the subcontractor. Simultaneously, the project culture describes the organisations' principles and values that enter into this contractual agreement. Moreover, the local country culture that shapes that agreement is included in the project culture. Specifically, the project sought to deepen current levels of understanding of the role that culture plays in the evolution of project disputes by exploring the role that arbitration plays in resolving disputes on construction projects in Saudi Arabia. This research also attempted to apply new learning about the construction industry culture to mitigate the frequency and severity of future disputes in the industry. Chapter 2 has outlined the latest theoretical understanding of culture in the construction industry and the nature of construction disputes and the arbitration process, with particular emphasis on how these relate to Saudi Arabia. Chapter 3 will now outline a data collection and analysis methodology implemented to achieve the thesis aim.

This chapter will start by explaining the broad context of the research methods used. It starts by explaining the post-positivist critical research paradigm upon which the research methodology is founded. It will then set out specific research questions relevant to addressing the aims and objective of the thesis. The fourth section explains what specific data collection methods were used for the research, the specific data that will be collected and the main methods used to process and analyse the collected data. The following section talked about the data analysis method and how the survey and interview questions were coded. The last 2 sections explained the scope and limitation of collecting the data besides the ethical procedures that were considered before proceeding and collecting the data.

3.2 The post-positivist critical research paradigm upon which this research methodology is founded

Abowitz & Toole (2009) drew attention to the fact that effective research on human behaviour in the construction industry is hard work. When that research includes social science objectives, then a mixed-methods approach is beneficial. They suggested that a mixed-methods approach increases the likelihood that the research will make a meaningful contribution to the literature. This thesis aims very much in the field of social science and involves the study of human behaviour. Hence, the advice provided by Abowitz & Toole (2009) is particularly relevant. Their research also found that, in construction-based studies, using a mixed-method approach enables the researcher to effectively balance the strengths and weaknesses of each particular research method, thereby enhancing the validity and reliability of the research findings. That said, Abowitz & Toole (2009) emphasised that theoretical “constructs” have to be well defined before undertaking measurement activities. The choice of the appropriate procedure to collect data is key to the success of the research. For this research, the author has carefully defined the theoretical construct that underpins the thesis within a post-positivist critical research paradigm.

Collins & Hussey (2003) stated that it is essential to define the research paradigm for a project, to inform processes used for collection and analysis of data. Bryman (2015), mentioned that a sound research paradigm is essential for the study of social phenomenon and (Howell, 2012) added that a well-elaborated research paradigm provides a valuable framework around which comprehension of social situations can be interpreted. In this section, the research paradigm underpinning and guiding the research conducted for this thesis will be explained. Bryman (2015) described a positivist paradigm as one that facilitates the description and explanation of social structures. As such, the author judged that its use might be helpful in this research that is investigating project disputes, the arbitration process and cultures, all of relying on some form of social structure in order for them to exist. The processes adopted in a positivist research methodology focus on gathering facts, based on the object's experience under investigation. However, users of the positivist paradigm have encountered limitations in interpreting complex social facts, which has led to the formulation of a post-positivist re-definition of the paradigm. Creswell

(2013), a post-positivist paradigm starts with the understanding that the researcher cannot be positive about his interpretation of facts collected from his world's experience. That is especially true when it comes to the study of human subjects. As such, post-positivist paradigms were developed to challenge concepts and ideas about social facts and are judged to be more effective than the original positivist paradigms. The move from positivism to post-positivism is strongly linked to the development of critical theory.

“Critical theory introduced the notion of emancipation as the rationale for knowledge development and provided an awareness of material conditions as the basis of understanding” (Howell & Sorour, 2016).

Traditional, positivist research approaches involve attempts to describe, understand and explain social relations. In contrast, a critical approach aims at achieving a transformational conscious understanding of the subject (Howell, 2012). A critical theory approach involves developing the understanding of how reality is shaped through social and historical processes (Howell & Sorour, 2016). When using a critical theory paradigm, the researcher must be mindful that the investigator and investigated are often linked, which subjectivity influences how the researcher interprets social facts (Howell & Sorour, 2016).

This research seeks to examine and explain particular social facts that arise when human interactions result in arguments and disputes, as such a critical approach would fit well with the subject matter under investigation. Creswell (2013) defined critical theory as a perspective that empowers humans to transcend their constraints by race, class, and gender. One of the main assumptions in critical theory is that social relations are constituted around power relations, affecting and mediating all ideas and thinking within a social system. Another Assumption is that the facts always contain a conceptual dimension (Howell, 2012). Research paradigms that include critical theory focus on the intricate processes within social conflicts, social interconnections and social change (Roberts, 2014). In this research, a post-positivist, critical paradigm will be used to assess how views on the arbitration of conflicts are interpreted within a Saudi Arabian culture. Figure 3.1 below illustrated how the paradigm will be applied in this research project.

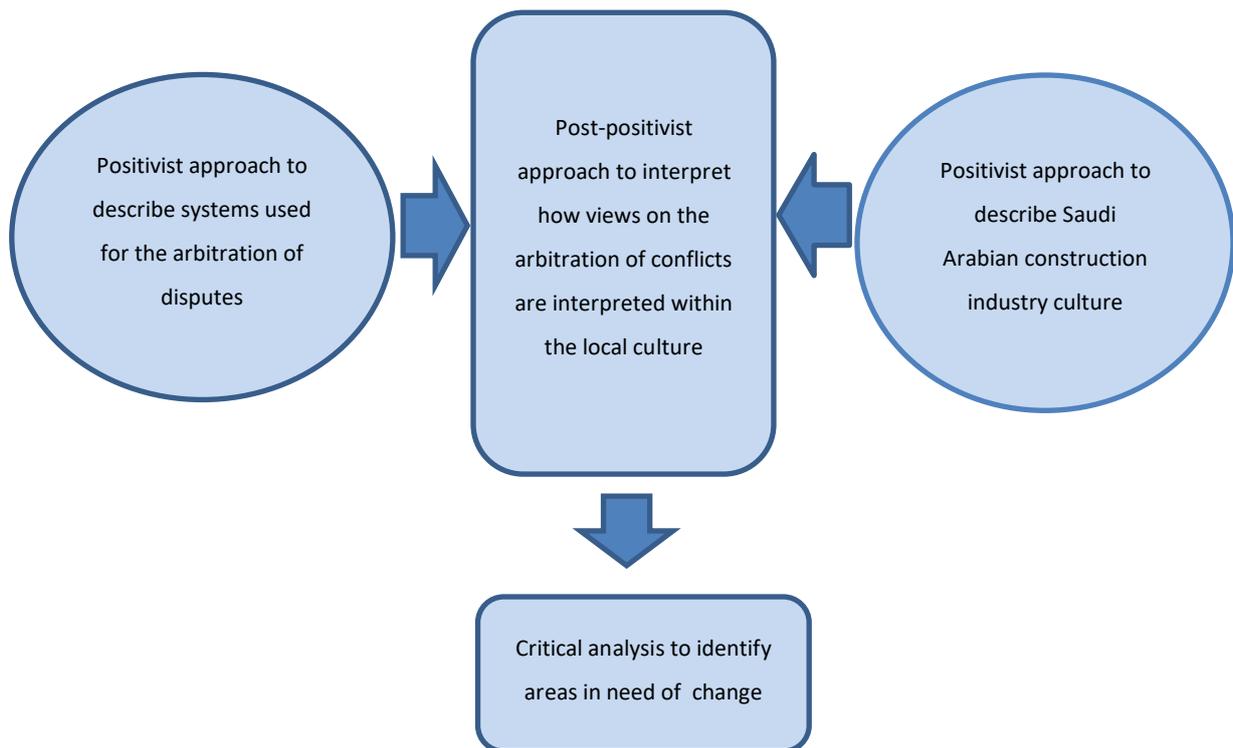


Figure 3. 1 The post-positivist critical research paradigm (source: Author)

In addition to the critical post-positivist approach adopted for the exploration of subjects investigated by this thesis, the author added a structured system of reflective analysis to help reveal new learning as the project progressed. That structured system of reflective analysis was based on the principles of “grounded theory”. Mills et al. (2006) described the grounded theory approach as one where the researcher is continuously comparing and analysing the data. Howell (2012) described the grounded theory as a process of building theory through incremental data collection and frequent pauses for analysis. The purpose of grounded theory is to build a substantive theory that faithfully illuminates/explains the area under investigation. Bryant & Charmaz (2019) added that the iterative process of data collection, conducted as part of the grounded theory approach, helps the researcher identify, code and categorise themes and patterns within the data. The author utilised that idea to cluster sets of data and code various themes relating to disputes, arbitration and culture to reveal new learning.

To Mills et al. (2006), the mechanisms of grounded theory are well suited to inductive research, like this project, and (Creswell, 2012) cited by (Flynn & Korcuska, 2018) added that data collection in a grounded theory-based system can be conducted by observation

and interviewing. Mills et al. (2006) further described how a researcher should engage with grounded theory in a practical study. He suggested that the researcher should define a set of shared characteristics and basic principles derived from the literature to provide a basis for comparison and reflection when conducting the research. Hence, the author set out aims and objectives and research hypotheses to test at the start of his research and then paused to reflect on their validity at regular intervals and after completing each activity associated with this research. As such, the author would describe his approach as, not a “pure” grounded theory approach, but rather one that is “grounded theory-based”, using an iterative data collection technique with several pauses. The author reviewed and reflective stages throughout the several years of this PhD programme. That structure is evident in the discussion chapters that set out a largely chronological system of analysis to reveal the growing patterns of learning and theory relating to the subjects of study.

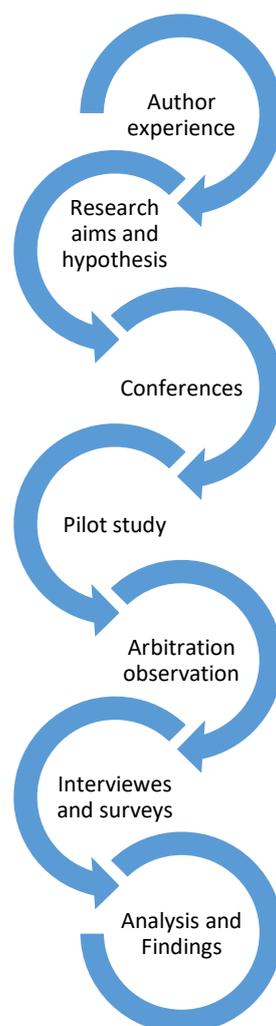


Figure 3. 2 The research diagram from the initiation of the hypothesis to main findings (Source: the author)

Figure 3.2 explains the research journey. It started with the hypothesis derived from the researcher's experience. The “grounded theory” principle started after the literature review stage to test these hypotheses by attending and presenting in the conferences. The researcher made a pilot study to validate the research questions before the actual data collection via observations, interviews and online survey. Finally, the researcher analysed the data and came up with the research findings.

3.3 Other research methodology considerations

For this research, the author reviewed data from case studies linked to his engagement in the construction industry of Saudi Arabia and also collect information about several case study arbitration hearings. Baxter & Jack (2008) described the case study methodology as based on a constructivist paradigm, where truth is relative and reliant on other perspectives. According to Yin (2003) the following should be considered when using a case study design:

1. “How” and “Why” are the main drive for the research questions.
2. Behaviour’s participants who are involved in the study cannot be manipulated.
3. The limitations between the phenomenon and the context are not clear.
4. The explanation of contextual conditions and the phenomenon as they are relevant.

The process of interpreting findings is an essential constituent of research design (Yin, 2003). There are different types of case study such as; explanatory, exploratory and descriptive (Baxter & Jack, 2008; Stake, 1995). In this thesis, an explanatory approach is used to help demonstrate meaning from the cases study data.

For the case study data collection, the author used an observational technique. Howell (2012) described two types of observation techniques that researchers frequently employ. First non-participatory observation where the researcher is external to the particular situation being investigated. The second is participatory observation, where the researcher engaged and participated in the activity being researched. The first approach is often associated with positivists or post-positivists research. Whereas the second is more commonly linked to constructivists and participatory paradigm of inquiry (Howell, 2012). Creswell (2014) listed some advantages of the observations:

- The researcher can note and record the events on the spot.
- The researcher can notice regular activity.
- It is useful to discover some topics that participants did not wish to discuss.
- The researcher has direct participation with the participant.

On the other hand, Katz (2015) stated that observation might worsen reactivity, affecting the findings. Howell (2012) addressed that concern, advising that observing the participants can sometimes force them to act differently than the normal. In that way, a set of limitations of observations include, but is not limited to; 1) the research might have a lack of observing skills, 2) the participant might think the researcher is pushy, 3) the researcher cannot report private information. To address these issues, observation included in this thesis was tightly controlled. First, the author applied the observation technique to analyse his own personal historical experience and in that way, prevent many of the negative issues highlighted above. When conducting formal observation of others, the author carefully explained the aim and purpose of the research and conducted the observation with minimal interference with actions being observed.

The use of observation methods in this research made the author aware of the need to assess his research position; a process is often described as reflexivity. Berger (2015) defined reflexivity as internal dialogue and continuous self-evaluation of the researcher's positionality and how that position might impact the research. As Grbich (2004) stated, it is vital to be aware of how the researcher's education, culture, and experience can impact the objectivity of the research. Thus, reflexivity is essential during the research journey from the hypothesis to data collection and analysis Berger (2015). Concerning this project, the author assessed his positionality as an insider of the Saudi Arabian culture, which enabled him to interact effectively with the participants. However, if the author had written this chapter 5 years ago, when he was directly engaged in the Saudi Arabian construction industry, he would not be able to write it the way he sees it now.

The author also used a questionnaire survey to collect data for this project. In common with many modern survey research projects, this project's survey was an online one instead of a paper one. Huffman (2006) stated that online survey tools are cost-effective and faster to complete than paper surveys, with higher possibilities that respondents will complete the survey. In addition, Wright (2005) stated that an online survey is more accessible, allowing

the researcher to reach respondents who are traditionally difficult to approach. On the other hand, Wright (2005) stated that online surveys do have some drawbacks. One of the issues that the researcher may encounter in an online survey questionnaire is control over the sample. The researcher might target certain respondents for the research purposes, and it ends up that the questionnaire is completed by people who are not the target population (Wright, 2005). Another drawback of the questionnaire approach was highlighted by R. F. Fellows & Liu (2015): the rigidity of closed questions that might restrain the responses. The same author advised that questionnaires should include open and closed questions to enable respondents to add further detail and explanation to support their answers to closed questions. The online approach was used for this research, as survey respondents were in Saudi Arabia, while the researcher was based in the UK, so an online approach made the survey much easier to conduct. Taking all the above advice on board, the author required respondents to provide details about their background. In that way, he was able to categorise the respondents' nature and cluster together responses from respondents with similar backgrounds. The author also included a mix of open and closed questions to reveal deeper qualitative insights to closed and quantitative questions.

Finally, the author undertook several face to face interviews. Opdenakker (2006) stated that face to face interviews give the researcher two distinct advantages over general survey methods. First, participants can provide much information to the researcher, both by body language as well as by the spoken word. Second, in a face to face interviews, there is no time delay compared to survey techniques. Qu & Dumay (2011) stated that the interview is also more convenient and can save time compared to surveys, providing the researcher with a chance to gather detailed information on the discussed subject. Bolderston (2012), added that interview participants must be able to share their perspectives privately to get an effective interview. Despite that, Qu & Dumay, (2011) warned that there is a possibility of unconscious bias when conducting interviews because the researcher takes an active role in designing the questions and interpreting answers. Cost is another disadvantage of face to face interview, as the author or participant must travel to a venue that is acceptable to the participant. Finally, Bolderston (2012) mentioned a strict limit on the number of face to face interviews that a researcher can complete in a given time and with given resources. It is hard to reach out to some people for face-to-face interviews compared to telephone or

email interviews. Therefore the population the researcher is aiming for might be affected (Opdenakker, 2006).

3.4 The research method for this project

In this section, the author will explain how he applied the research philosophy and practical consideration of research methods to collect data for the thesis.

3.4.1 Reflective observation

As part of this thesis's grounded, critical and post-positivist approach, the author used reflective observation extensively. The positivist paradigm, coupled with reflective observation, helped illustrate the author's background as a Saudi Arabian cultural insider. The author spent most of his life in Saudi Arabia. He was born in the country and completed his primary, secondary and undergraduate education there. His first language is Arabic, and he has studied Islamic subjects at all levels of his education in the country. Reflective observation of the author's education and the experience was used in all three discussion chapters to help establish the initial grounding form that the research was then developed.

Moving beyond the simple descriptive positivist analysis, one aspect of the reflective observation process that the author found particularly helpful was identifying his position in the research. The author has spent many years located away from the local Saudi culture, especially since the beginning of this PhD research. The reflective observation helped in the post-positivist critical analysis process, enabling him to define his position and perspective when looking back over his experience and data gathered for this thesis. From that grounding, he revealed deeper insights about disputes, arbitration, and culture in the construction industry of Saudi Arabia with every successive layer of data collected and analysed.

3.4.2 Arbitration case studies

The author had a plan to observe some arbitration hearings during the 3 months he spent in Saudi Arabia collecting data. The target was to attend between 4 and 6 arbitration hearings, but gaining access to hearings was quite challenging. Initially, the author expected assistance from the JCCI with the case studies; however, their contribution was limited to the provision of quantitative data on the cases that passed through their system in 2016-17.

One of the interviewees, a senior lawyer, did eventually facilitate the observation of 3 arbitration hearings. Most of the detailed data from the JCCI is presented and analysed in Chapter 4. A condition for allowing the author to observe the hearings was to sign a non-disclosure agreement for all three events. As such, no personal information about the parties involved in the case is published in this thesis.

Below is a brief outline of each arbitration case.

Arbitration meeting 1

The disputing parties were a sub-contractor and the main contractor. The dispute starts on the termination of the subcontractor agreement by the main contractor. The subcontractor stated that there are bills to be paid for work he completed before the contract was terminated. The work was a “sample piece” provided by the subcontractor, and that was needed to assure the main client on the project about the quality of the subcontractor’s product. The sample took 6 months to prepare and was ultimately rejected by a consultant representing the main client. However, the subcontractor had already started work on the project before he was informed that his contract was terminated. The subcontractor stated that he was obliged to start the works before signing a contract and that all the deals and communications were verbal. He claims that he had proceeded in good faith that the contract would be signed. Due to the contract's verbal nature, there is very little written communication to indicate what had been agreed. The arbitration tribunal asked the parties to supply further documents before they meet again to make their decision.

Arbitration meeting 2

The case is about one party, a subcontractor, providing his client ,the main contractor, with two guaranteed cheques before the works' commencement. The first cheque was 30 million SAR (about £6million) to guarantee the work quality, while the second one was 10 million SAR (about £2million) to ensure the subcontractor completed the work. The subcontractor has asked the arbitration tribunal to prevent the main contractor from cashing both cheques. He also asks the tribunal to instruct the main contractor to stop sending him letters telling him that he must complete the work using his funds. The main contractor’s representative explains that the subcontractor has accrued financial liabilities which exceed

the amount in both cheques. Therefore, he is sending the letters to the subcontractor to make sure that he is aware that he will not be paid for completing the outstanding work.

Arbitration meeting 3

In this case, a consultant (engineering consultant) is representing the client, who has registered a dispute with the main contractor on a project. The dispute relates to the refusal of the contractor to handover the completed project to the client. The contractor replied that he did not refuse to attend the day of handing the project over; instead, he claims that he was not properly notified in advance about the event. The consultant then added further claims that the contractor failed to procure some materials on time, which delayed the project. He hired a subcontractor without prior permission from the client. The contractor then introduced a counterclaim of his own, that another consultant who represented the client during construction approved some works on the project, which the client has subsequently rejected and is refusing to pay for. The current consultant argued that the claims relating to previous consultants are invalid in this case.

The three case studies described above were used to create a “scenario” at the start of each of the three main discussion chapters (Chapters 4, 5, and 6). With a reflective observation process, the author used the scenarios to help illustrate contributions made by this PhD research to a new understanding of disputes, arbitration and culture in the construction industry of Saudi Arabia.

3.4.3 The case studies from (JCCI)

The case studies encompassed attending an arbitration meeting and collecting qualitative data from the arbitration centre in JCCI. The purpose of attending the arbitration meeting was to explore the arbitration's actual practice and understand its mechanism. Moreover, the author focused on his attendance at the arbitration related to the construction. The author picked three different cases as it was not practical to stick to one case for the sake of time. On the other hand, the author aimed to study some arbitration cases in JCCI in 2016 and 2017 to understand arbitration practicality. The author approached the chairman of the arbitration centre and explained the importance of his research, and asked for some arbitration cases to review. The request was rejected due to confidentiality, and then the author changed his strategy. He prepared questions and asked the chairman to answer

them. The data collection methods (online survey and the interview) generally provided data on the arbitration and disputes. In comparison, the case studies provided specific information about specific arbitration cases.

Questions to Jeddah Chamber of Commerce and Industry (JCCI), Arbitration Centre

Below is the description of the questions the researcher asked the chairman of arbitration centre in JCCI.

Year 2017

Number of disputes that the arbitration Centre dealt with?

- Total of 5 cases between the client and the contractor
- Total of 2 cases between the contractor and sub-contractor

Who is the claimant and the respondent in these cases?

- 4 cases the client were claimants and the contractors were respondents
- 2 cases the sub-contractors were claimants and the contractors were respondents
- 1 case the contractor was claimant and the sub-contractor was respondent

Reasons of disputes occurrence?

- Delay in delivering the projects from the contractors (3 cases)
- Extra work added by the client (change in scope) (1 case)
- Delay in payment (1 case)
- Cheque given from the buyer to the seller to endure ending the project properly (2 cases)

Average time of the arbitration process from the first meeting up until the award announcement?

7.5 Months

Number of cases that the losing party will appeal against the final award?

90 to 95% of cases the losing party will request for appeal and as you know the appeal will be applied on the arbitration procedures to make sure it went properly.

Year 2016

Number of disputes that the arbitration Centre dealt with?

- Total of 5 cases between the client and the contractor
- Total of 1 case between the contractor and sub-contractor

Who is the claimant and the respondent in these cases?

- 4 cases the client were claimants and the contractors were respondents
- 2 cases the contractors were claimants and the clients were respondents

Reasons of disputes occurrence?

- Delay in delivering the projects from the contractors (2 cases)
- Extra work added by the client (change in scope) (2 case)
- Delay in payment (2 case)

Average time of the arbitration process from the first meeting up until the award announcement?

7.5 Months

Number of cases that the losing party will appeal against the final award?

90 to 95% of cases the losing party will request for appeal and as you know the appeal will be applied on the arbitration procedures to make sure it went properly.

3.4.4 Pilot study

For the pilot study exercise, an opportunity arose that enabled the author to visit Dubai in December 2017. So, the decision was made to conduct a focus group session in the country. During the focus group discussion, the author presented a draft set of questions that were being considered for use in interviews and a questionnaire survey in Saudi Arabia. Dubai, in the UAE, is geographically and culturally close to Saudi Arabia and the construction industries in the two countries have many similar practices. As such, the author considered that feedback received would apply to the Saudi Arabia context.

For the focus group, the author included participants with a range of backgrounds:

- Construction Lawyer
- Procurement Manager
- Academic lecturer in the construction management field
- The researcher (the chair of the meeting)

After discussing the research questions with the participants in Dubai and the conference delegates at the International Engineering Conference and Exhibition in Riyadh (will be discussed further in chapter 4), the author finalised his data collection strategy. Two

issues were noted: the “Q construct” and “Civil Code” and seemed not to be very well understood in Saudi Arabia, so this idea from the pilot study was dropped for further investigation. Second, the suggestion of a weakness in the decision-making process and that disputes clauses were considered and then deliberately excluded was a very sensitive subject. The suggestion was that if those questions were asked directly, answers given might not be very helpful to the research. The author, therefore, decided to address those issues indirectly, with questions linked to culture and offering interviewees open opportunities to raise issues of concern and suggest ways of improving current systems. For the data collection, the author collected statistics on construction disputes from the Jeddah Chamber of Commerce (JCC) (N=13). They have completed a questionnaire survey (N=67), completed interviews with lawyers, arbitrators and engineers from Jeddah, Riyadh and Dhahran, all of which have experience in the resolution of disputes using arbitration in Saudi Arabia (N=18).

3.4.5 Practitioner survey

Reflecting on his background and the arbitration hearing scenario, the next stage in the grounded theory-based methodology was to critically analyse results from a questionnaire survey of industry practitioners. The survey encompasses four main sections:

Section 1 – Background data

This section of the survey talks about the background of the participant. The main idea is collecting data about each participant which will be used to classify the participants into groups as it will be described below. The criteria of the background divided the participants based on their job role and technical background besides the year of experience in the construction industry. Moreover, the engagement of dispute resolution role and number of years was asked to get the respondents’ views on how the disputes are resolved differently. Below are some example questions of this section and the rest of the questions can be found in Appendix I:

Q6. How many years have worked in the construction industry in Saudi Arabia? _____ **years**

Q7. How many years have you been engaged in in the resolution of disputes on construction projects in Saudi Arabia? _____ **years**

Section 2 – Questions about the culture that exists in the Saudi Arabia construction industry

In this section the researcher aimed to get more insights about the Saudi Arabian culture which serves on the research objectives about deep understand of the construction culture in the country. Two of the three questions in this section focus on to what extent the parties are cooperative to resolve the project's disputes, besides seeking the respondents' opinion about the amicable approach to resolve the disputes.

Q9. If a dispute arises on a construction project in Saudi Arabia it will always be resolved in a friendly manner

(please tick one answer below):

- Strongly agree
- Agree
- Neutral
- Disagree Strongly di

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Please provide a brief explanation of your answer here:

question was asked to know how frequent the construction organisations train their personnel about their culture to get more insights about preparing the staff to deal with the different culture during the projects.

Section 3 –Questions about the way in which disputes on construction projects in Saudi Arabia are resolved

This section encompasses of two parts, the questions in the first part were asked to explore the effectiveness of dispute resolution board (DRB) in resolving the disputes and the engagement of the participants in DRB. Using DRB in the construction is a cultural matter first to understand its benefits before the application in the ground.

Q12. Have you heard of the “Dispute Resolution Board” (DRB) in Saudi Arabia? **Yes / No**

If yes, please explain how you came to hear about the DRB:

Q13. Have you ever engaged with the DRB?

Yes / No

If yes, please explain how many times you have engaged with the DRB:

The second part emphasis on the common causes of dispute in construction in Saudi Arabia to support one the research objectives. Moreover, the literature review revealed that that the frequency of poor contract documents and choosing the lowest tender price have contributed heavily in the disputes. Therefore, the researcher aimed to verify them by asking the participants 2 separate questions in this section.

Q17. What are the most common factors that cause the disputes on construction projects in Saudi Arabia?

(Please rank each factor with a score between 1 to 5, where 1=most common and 5=least common):

- Time over run
- Frequency of changing orders via contractors
- The client change his mind after commencing the execution
- Late payment to the contractor
- Selecting the lowest price offered by the contractor over quality

Q18. When tendering for construction services in Saudi Arabia, clients always choose the lowest tender price.

(please tick one answer below):

- Strongly agree
- Agree
- Neutral

- Disagree Strongly disagree

Please provide a brief explanation of your answer here:

Section 4 –Questions about the Arbitration process used in Saudi Arabia

The researcher in this section aimed to ask the respondents about their understanding of the arbitration its practicality in resolving the disputes in the construction. The researcher asked a specific question about writing arbitration clause in the contract to investigate the link of how commonly the arbitration applied and to link to the culture. The last part in this section was a question about the how the new arbitration law has been evolved and improved to relate that to the discussion raised in the literature about the differences between the old and the new arbitration laws.

Q21. In your opinion, is the arbitration process in Saudi Arabia clear and well understood?

(please tick one answer below):

- Clear and well understood
- Not clear but well understood
- Clear but not well understood
- Not clear and not well understood

Please provide a brief explanation of your answer here:

Q22. In 2012, the arbitration law in Saudi Arabia was amended. In your opinion, how has the 2012 amendment to the arbitration law changed the practice of arbitration in the country?

(please tick one answer below):

- Highly improved the practice
- Partially improve the practice
- Not changed the practice

- Made the practice less effective
- Significantly worsened the practice

Please provide a brief explanation of your answer here:

As the main target audience for the survey was Arabic speaking people, the author presented the survey questions in Arabic and English. See Appendix I, for a copy of the questionnaire used for this research.

The survey was distributed online to personnel who were currently working in the construction industry in Saudi Arabia. The targeted sample was 100 participants as the author collected other data from various methods. The author distributed the survey to the participants who are working in the construction industry across Saudi Arabia. Since the author aimed to investigate the construction culture in Saudi Arabia, the public and private sectors were included in the online survey. Therefore, there was a range of professionals who are working in both sectors participated in the survey. In total, 64 questionnaire survey responses were returned, a number were not completed (N=5), a number only completed the first two sections (N=4), the rest completed most or all of the survey (N=42). From the completed surveys, the author divided respondents into four sub-groups.

1. Respondents who answered that they had no experience of dispute resolution, N=22
2. Respondents with a formal role in the dispute resolution process, N=9
3. Respondents with no formal role in the dispute resolution process, N=7
4. Respondents with experience working with the DRB, N=4

Appendix II explains how the survey data was processed and coded, and Appendix III includes all the raw data from the survey. Data from the survey were analysed using simple statistics. A number of figures are presented in each discussion chapter showing the analysed data. The figures are mainly box and whisker plots for the survey, showing:

- a. The statistically significant range, max and min values
- b. Dots showing statistical outlier data points
- c. A box spanning the lower to upper quartiles
- d. A line through the box showing the median value

- e. An X showing the mean value

3.4.6 Interviews with legal experts

The final stage in this thesis's grounded theory approach was to analyse data collected from face-to-face interviews. For the interviews, the author selected people with expertise and/or experience of dispute resolution in Saudi Arabia. Questions for the interviews were split into 4 sections, plus the last question to link disputes, culture, and arbitration, very similar to the questionnaire survey structure. Appendix IV includes a copy of the interview questions.

The researcher divided the interview questions into 4 main sections to serve and support the research objectives and link the interviews' outcomes to the literature review. Since culture is one of the main drivers in this research, the author prepared further questions to get deep thoughts and insights about the construction industry's organisational culture and the impact of leadership on the organisations. Although some questions about the culture in section 2 seemed complicated and needed further explanations, the researcher had sent copies of the questions to the interviewees in enough time and simplified them during the interview. The goal was to get the participants understanding of the culture they are already involved in. Below example of 2 questions from section 2 and the rest of the questions can be found in Appendix IV:

- A. Culture has been a subject of study for many decades and researchers have revealed many different ways in which cultural frameworks within societies, industries and organisations define the shared values, basic assumptions and beliefs held by individual in those societies, industries and organisations (Deal and Kennedy 1982, Dawson 1992, Hofstede 2005, Obeidat et al. 2012, to name just a few).

In your opinion, how well studied is the cultural framework that shapes the culture of the construction industry in Saudi Arabia and what aspects of the cultural framework are most in need of further study?

- B. Rameezdeen and Gunarathna (2012) identified four organisational culture types;

Clan culture - Participation and openness are the main characteristics in this organisational culture, as such the culture aims to involve everyone in the organisation's activities and decisions. Rewards are based upon group performance

rather than individual performance.

Adhocracy culture – The culture is focussed on the growth of the organisation, mainly by encouraging innovation and adaptation.

Market culture – In this culture, efforts are directed to the maximisation of business efficiency, improving levels of productivity and profit.

Hierarchy culture – This culture focusses on compliance with rules and respect for roles in the organisation, often prioritising the bureaucratic process within the organisation.

The author also asked a question about the ARAMCO arbitration case and whether it affected the arbitration culture in Saudi Arabia. Does this case have an impact of initiating the first arbitration law in 1983?

C. Schwebel (2010) argued that the culture on construction projects in Saudi Arabia underwent a significant shift after a dispute on a large oil project in 1958. The dispute involved the Arabian American Oil Company (ARAMCO) rights to explore and the produce crude oil in the Kingdom of Saudi Arabia.

From your experience, how has the legacy of the ARAMCO case influenced the culture on construction projects in Saudi Arabia and has it helped or hindered the ability of the industry to reduce the level of conflict on construction projects in the country?

The author used a snowball technique for the identification and selection of interviewees. The aim of using this technique as Browne (2005) declared is getting access to the specific participants who can serve the research effectively based on the criteria mentioned above. Having the right participants is essential for the research topic and its objectives. The researcher met some potential participants in the arbitration meetings and asked them questions about their experience and practice in the construction arbitration to assess their suitability to participate in the research. The researcher then asked the participants to introduce him to another participant who might be interested in the research. The snowball technique went very well, and eventually, 18 interviews were successfully completed. Interview participants came from 3 different regions in the country, the Eastern, Central and Western regions. Each interview took on average 30 to 45 minutes. The author

asked all interviewees to complete an ethical form, and some participants requested copies of the questions in advance of the interview.

The researcher aimed to conduct an interview with people who have the following criteria when using the snowball technique:

- Participants who are practicing arbitration in construction. Most of them are lawyers, and some of them are arbitrators with an engineering background. Those participants will provide details about the arbitration practice and how it is efficient and understood by the parties. They will also provide very well comparison between the old and the new arbitration laws in Saudi Arabia.
- Participants who are working in the construction to get their insights about the construction disputes, main causes and resolutions. The participants will also respond to the questions about the construction culture they are dealing with in Saudi Arabia. Some construction managers are involved officially in resolving disputes, and some are not. Moreover, they are not all aware of comparing old and new arbitration law in Saudi Arabia.
- Three participants who are legal consults are working in ARAMCO, and one participant is academic. They provided thoughtful insight into the ARAMCO culture in dealing with disputes and handling them with the local contractors.

The researcher aimed to hire participants who have adequate Saudi Arabian construction experience to give the research more credibility since the research is about Saudi Arabia. Therefore, the participants are grouped based on their year of experience in Saudi Arabia as shown in table 3.1 below.

Most of the interviews were conducted in Arabic. They all were recorded before being transcribed and translated by the author. It was a challenge for the author to transcribe the Arabic interview and then translated it into English transcription, and it took a longer time than expected.

Interview participants included one Arbitrator, eight lawyers, five construction managers and four legal consultants. All but two lawyers interviewed were Saudi nationals with considerable experience in the construction industry in Saudi Arabia. The consultant group and Interviewees were notable, as they were either foreign nationals or academics. In that regard, their opinions can be viewed, in this analysis, as slightly more objective and more broadly based than the other groups. For the analysis, interviewees were grouped into four categories: Arbitrator (A); Legal Consultant (C), Construction Manager (M) and Lawyer (L). A further sub-grouping was then applied, based on the level of experience of dispute resolution in Saudi Arabia: More than 10 year was high (H); 1 to 10 years was moderate (M); less than 1 year was low (L). For three interviewees, the level of experience data was not revealed (DN) (see Table 3.1).

Table 3. 1 Coding of interviewees based on role and experience

Classification by role	Code	N	Formal Exp.			
			H	M	L	DN
			>10yrs	1-10yrs	<1yr	DN
Arbitrator	A	1	1	0	0	0
Legal consultant	C	4	1	1	1	1
Manager	M	5	0	1	2	2
Lawyer	L	8	5	2	1	0
Total		18	7	4	4	3

Interviewee no.	Name	Code	Exp.
1	P1	C	H
2	P2	C	DN
3	P3	C	L
4	P4	L	M
5	P5	L	H
6	P6	L	H
7	P7	M	L
8	P8	M	M
9	P9	M	DN
10	P10	L	H
11	P11	L	M
12	P12	L	H
13	P13	M	L
14	P14	L	H
15	P15	C	M
16	P16	M	DN
17	P17	A	H
18	P18	L	L

3.4.7 Qualitative data analysis

The author used Nvivo software to code the interviewees' answers after transcribing them. The author classified the interview questions into three categories: section 2 in the interview questions (see appendix IV), which includes the culture questions, section 3 that includes the dispute and its causes and section 4 that involves the arbitration. The author coded their answers question by question, as shown below:

- Q2A: How culture links to disputes
- Q2B: Lessons from the culture about the causes of disputes
- Q2C; Legacy of ARAMCO case
- Q2D: Leadership links to culture
- Q3A: Common reasons for disputes
- Q3B: Use of amicable methods to resolve disputes
- Q3C: Percentage of disputes proceeding to arbitration
- Q3D: Disputes involving the supply chain
- Q4A: Effectiveness of arbitration and litigation
- Q4B: Purpose of changes to Arbitration Law
- Q4C: Effectiveness of Arbitration Law
- Q4D: Further changes to Arbitration Law is needed
- Q5A: Proposals to mitigate the level of disputes

3.5 Scope and limitations

The scope of collecting the data from JCCI was to get the arbitration documents for selected cases in 2017 and 2016. The JCCI chairman rejected the request due to confidentiality. Therefore, the author prepared questions to get quantitative data from JCCI. The author also targeted to interview 25-30 participants, but due to the time constraints and participants' availability, he did 18 interviews. The targeted sample of the online survey was over 100 respondents. The author found that some participants were not willing to take part in the survey. Lastly, the author planned to observe 5 arbitration meetings, but he observed 3 meetings due to parties' confidentiality.

3.6 Ethical consideration

The research ethics as described in University of Plymouth (2021) are group of values to support the ethical conduct of any the research. It also includes the process and scope that should be put into consideration before carrying the research. Any human engagement in the research in either online survey, interview or focus group is considered to be ethical with considering a level of risks (University of Plymouth, 2019). The researcher should follow the main principles with any research that requires human participation. These are the four main principles:

- 1) Autonomous: the participants should be aware about any part of the research that might affect their consent to take part.
- 2) Openness and honesty: the research should inform the participant about the research's aim and purposes.
- 3) Protection from harm: the research should assure the participants' safety and put the safety procedures in place if required.
- 4) Confidentiality and data protection: the researcher should make sure that all participants identities are secured and will be kept confidential and anonymous (University of Plymouth, 2019).

The ethical approval considerations in this research are as follow:

1- Anonymous treatment

The author confirmed to the research participants that their information would be kept anonymous. In the interview, each participant signed the consent form, and the author explained to them the anonymity of their information. The author provided the same consent sheet to the participant in JCCI before the interview. At the same time, the author in the online survey added a sentence in the information sheet explaining the privacy of the participants' data and responses. In the three arbitration meetings, the author had to sign a non-disclosure agreement to sit and observe them. The parties were concerned about the confidentiality of the cases.

2- Right to withdraw

The participants had the right to withdraw from the interview and the online survey. Therefore, the consent form and the research information sheet included that each

participant has the right to withdraw from the research anytime. Consequently, their responses will not be included in the research.

3- Data protection

The online survey response and the interview recordings were kept for research purposes. The author transcribed the interview and then deleted all recordings. The online survey responses were downloaded in excel sheets to analyse them and then erased from the server. JCCI data and arbitration meetings were destroyed after they have been analysed.

4- Confidentiality

The author confirmed to the research participants in all four data collection methods (interview, online survey, JCCI and observations) that all the information they provided will be used for research purposes only.

The author prepared an ethical approval form before conducting the pilot study in Dubai and the data collection in Saudi Arabia. Below is a sample of the form contents, and the whole form can be found in the appendix (IV) :

3. PROCEDURE

3.1 Describe (a) the procedures that participants will engage in, and (b) the methods used for data collection and recording
In this project the participants will be engaged in a questionnaire survey or a structured interview.
3.1a If surveying or interviewing, you must include your questionnaire(s) and interview schedule(s). Are these attached: Delete as applicable: Yes
3.2 How long will the procedures take? Give details

The questionnaire survey may take 20minutes to complete and the interviews may take 60mins to complete

3.3 Does your research involve deception?

Delete as applicable: **No**

Please explain why the following conditions apply to your research:

3.3a Deception is completely unavoidable if the purpose of the research is to be met

3.3b The research objective has strong scientific merit

3.3c Any potential harm arising from the proposed deception can be effectively neutralised or reversed by the proposed debriefing procedures

3.3d Describe how you will debrief your participants

3.7 Conclusion

It is the author's view that the methods used to complete the research associated with this PhD were successful. The grounded theory-based approach enabled the researcher to build from his own experience (see preamble), and all the different elements of data collection added rich details to the subject under investigation. As an exploratory and qualitative analysis, the results were quite confined to the limits of the case studies and research

participants' views. However, the number of participants helped identify essential and novel findings that will help to demonstrate a positive impact.

Chapter 4 - Results and discussion on new insights about disputes in the Saudi Arabian construction industry

Scenario 1

I am sat in the corridor waiting to enter the room where the arbitration hearing is to take place. Inside the room, parties are being asked if they will agree to let me observe the proceedings. After several minutes the door opens, and I am allowed into the room. On entering the room, the people (eight men and two women) greet me, and I introduce myself and explain the focus of my research. The room is not as formally arranged as I imagined; all the parties are sat around a single table. There are three people making up the arbitration panel; three other people are from the plaintiff and three more from the defendant and one note-taker. The atmosphere is friendly and informal. I am told that this is the second hearing in the case, and the arbitration board has spent time reviewing documents submitted by the parties. The plaintiff is asking for the recovery of costs for some work that was undertaken before a contract was cancelled. However, the agreement between the parties was only a verbal contract and the defendant disputes that the plaintiff is owed any payments. The arbitration panel quiz both parties about events, and it transpires that there is very little written evidence of any agreement. The plaintiff claims that both parties were acting in "good faith". The arbitration panel agrees to give the parties more time to forward any documents they can find to the panel arrive at a decision, even by via email. In the end, a further meeting date is set, minutes of the meeting written and signed by everyone present. The minutes will be circulated to all those who attended.

The above scenario was observed by the author on the 7th of March in 2018, as part of the data collection exercise for this thesis. It helps to illustrate how disputes arise on construction projects and will be used to help illustrate new insights generated by this PhD project about disputes in the Saudi Arabian Construction industry. The analysis and discussion start with a review of the author's personal experience of disputes and their causes in the Saudi Arabia context.

4.1 Introduction

With the link to the previous chapter, the author started the research journey with the grounded theory approach, which will evolve the research ideas to answer the research questions. The author started to improve the understanding of the dispute causes and resolution by conducting various activities each year before finalising the main questions to complete the bigger research's picture and fulfil its gaps. Then the author presented and discussed the data that was collected from JCCI, online survey and interviews. The author analysed each data set and ended its findings. Then the author summarised the main findings of the dispute causes and resolution at the end of this chapter.

4.2 Chamber of Commerce data on disputes and their resolution in Saudi Arabia

The author was able to verify that the Chamber of Commerce initiative to supply technical expertise in an effort to help the court system resolve technical construction disputes was operational. Although in its early stages of development, the author was able to gather data for two years of the scheme's operation, 2016 and 2017 (Table 4.1). That data revealed that the JCCI was involved with a total of thirteen dispute cases (6 in 2016 and 7 in 2017). Despite the small number of cases, the data reveals some useful insights into some of the questions being addressed by this thesis.

One of the questions this thesis was interested in answering was to what extent disputes exist between the main parties and to what extent they arise within the project supply chain. Table 4.1 shows that data from the JCCI revealed approximately 83% of cases were between the main parties (client and contractor) and 17% were generated within the project supply chain (contractor and sub-contractor). The data also revealed that in the disputes between the main parties, in 80% of cases, the Client initiated the process (as Claimant). For the supply chain cases, 33.3% of cases were initiated by the main contractor. The main contractor in the supply-chain cases adopts the same role as the client in the other cases (the Payor, as opposed to the Payee), which reveals that, overall, in 69% of cases the claimant was the Payor. This small set of results is significant, as there was no evidence in the published literature of research that had been able to quantify the extent to which

disputes were split between the main parties and the supply chain, and the extent to which the contract Payor or the Payee were the instigators of disputes. This is the first contribution that this PhD is making to current knowledge.

Table 4. 1 Data about disputes handled by the JCCI in Jeddah in 2016 and 2017

<p>Number of disputes that the arbitration Centre dealt with?</p> <ul style="list-style-type: none">• 10 cases between the client and the contractor (5 in each year) (83.3%)• 3 cases between the contractor and sub-contractor (1 in 2016, 2 in 2017) (16.7%) <p>Who is the claimant and the respondent in these cases?</p> <ul style="list-style-type: none">• 8 cases where the clients were claimants and the contractors were respondents (4 in each year)• 2 cases the contractors were claimants and the clients were respondents (2016 only)• 2 cases the sub-contractors were claimants, and the contractors were respondents (2017 only)• 1 case the contractor was claimant and the sub-contractor was respondent (2017 only)

Much prior research has identified reasons for disputes on construction projects; (Mahamid, 2016; Samarghandi et al., 2016; Williams, 2016). The data collected from the JCCI does not contradict the published research, as many of the causes were similar to what was previously found (Table 4.2). However, 15.4% of cases related to the Payor trying to end a project prematurely and the Payee disputing the settlement sum. This cause was not widely reported in the published research, making the author suspect that it was something that may be unique to the Saudi Arabia context. However, that judgement would need further investigation to verify. Other than that, this research was able to quantify that Time delay was the most frequent cause of disputes (38.5% of cases) and that changes in scope and

delays in payment were the next most frequent causes of disputes (23.1% in each case). Here again, the unique contribution of this research to current knowledge is not the identification of new causes of disputes, but the quantification of each cause in relation to the overall number of cases. Of course, the small sample size and the geographical restriction of the sample to Jeddah in Saudi Arabia means that considerable caution must be taken before extrapolating this result into the wider industry. Further investigation would be needed to verify this result.

Table 4. 2 Data about reasons for disputes for cases handled by the JCCI in Jeddah in 2016 and 2017

Reasons of disputes occurrence?
<ul style="list-style-type: none"> • 5 cases where delay in delivering the projects from the contractors was the cause (2 in 2016, 3 in 2017) (38.5%) • 3 cases where extra work added by the client (change in scope) was the cause (2 in 2016, 1 in 2017) (23.1 %%) • 3 cases where delay in payment was the cause (2 in 2016, 1 in 2017) (23.1%) • 2 cases where a cheque given from the buyer to the seller to endure ending the project properly was the cause (2 in 2017) (15.4%)

An important question for this research was to verify claims in the published literature that non-litigation means of resolving disputes were getting longer; (Al-Ammari & Timothy Martin, 2014; Altawyan, 2016). Table 4.3 and Table 4.4 shows that, according to the JCCI data, just the arbitration process in a dispute takes on average 7.5 months. After arbitration, the process is most likely to continue, as 90-95% of all arbitration rulings are appealed. Here again, the data contribution does not contradict the prior research and is only able to shed light onto a single part of the overall length of time it takes to resolve a dispute. What is new is the finding that 90-95% of cases going to arbitration are appealed, as this level of appeals was not previously reported. However, here again, the small sample size and the geographical restriction of the sample to Jeddah in Saudi Arabia means that considerable

caution must be taken before extrapolating this result into the wider industry. Further investigation would be needed to verify this result.

Table 4. 3 Data about the length of time to resolve cases handled by the JCCI in Jeddah in 2016 and 2017

<p>Average time of the arbitration process from the first meeting up until the award announcement?</p> <ul style="list-style-type: none">• For both 2016 and 2017 = 7.5 Months

Table 4. 4 Data about the number of cases going to appeal after being handled by the JCCI in Jeddah in 2016 and 2017

<p>Number of cases that the losing party will appeal against the final award?</p> <ul style="list-style-type: none">• For both 2016 and 2017, 90 to 95% of cases the losing party will request for appeal and the appeal will be applied on the arbitration procedures to make sure it went properly.
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At the end of the analysis of the JCCI dataset, the author reflected on how the findings influenced how he interpreted the scenario at the start of this chapter. What is clear now is that the arbitration process that the parties have embarked upon is likely to take 7.5 months to resolve. After that, there is a 90-95% chance that the losing party will appeal the arbitration panel decision, leading to a further hearing in a court setting. The case is also slightly unusual, as cases initiated by Payees make up just 31% of all disputes registered in the region. However, 15.4% of cases Payee instigated cases in the Jeddah are based on the Payee disputing a sum received by the Payor for cancellation of a contract is representative. That figure represents 50% of Payee cases, so it is not a surprise to learn that this dispute relates to that cause.

4.3 A quantitative survey to reveal the basis of disputes and their resolution in Saudi Arabia

The next stage in the grounded theory-based methodology was to further investigate insights gained from the JCCI data, by analysing results from a larger questionnaire survey. The methodology chapter has already described how, although 64 questionnaire survey responses were returned, a number were not completed (N=5), a number only completed Section 2 (N=4), the rest completed most or all of the survey (N=42). As such, this section will analyse the results of the completed survey questions. That analysis includes a breakdown of respondents into four sub-groups. Respondents who answered that they had no experience of dispute resolution (N=22) were used as a “control” sample against which to compare answers of the other respondents, all who had the experience of the dispute resolution process in Saudi Arabia (N=20). The group of respondents with experience of the dispute resolution process was further divided into three sub-groups:

1. Respondents with a formal role in the dispute resolution process, N=9
2. Respondents with no formal role in the dispute resolution process, N=7
3. Respondents with experience working with the DRB, N=4

A number of figures are presented to help the discussion. The figures are mainly box and whisker plots for the survey, showing:

- a. The statistically significant range, max and min values
- b. Dots showing statistical outlier data points
- c. A box spanning the lower to upper quartiles
- d. A line through the box showing the median value
- e. An X showing the mean value

The first question analysed is question 6, which asked respondents how many years of experience they had of working in the Saudi Arabia construction industry (Figure 4.1).

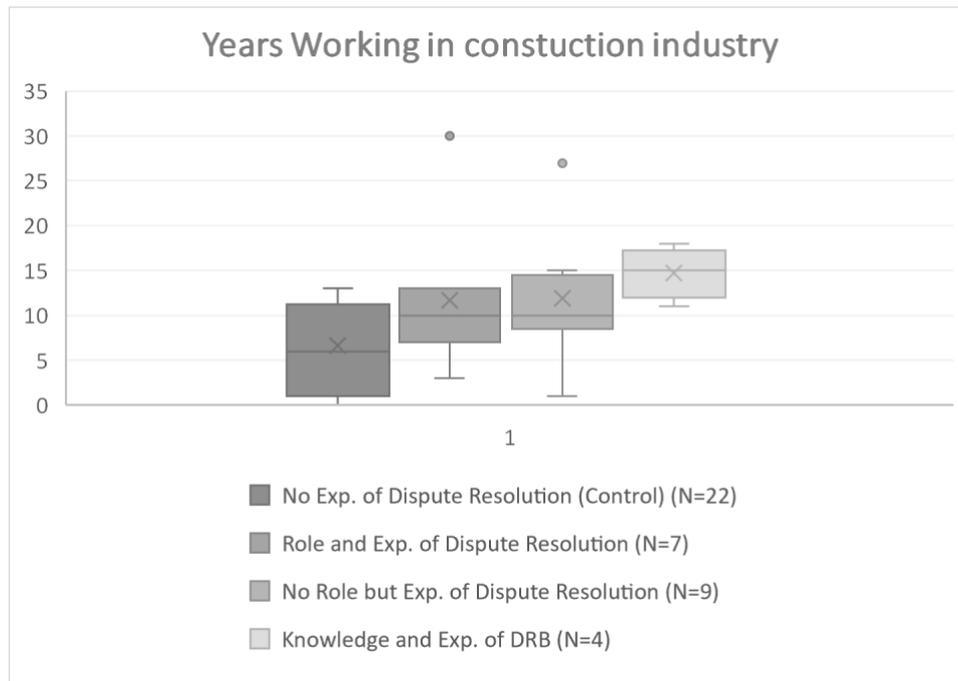


Figure 4. 1 Analysis of survey question 6 relating to the experience of working in the construction industry of Saudi Arabia

Question 6 demonstrated that the “control” group, had the least experience, with an average of just over 6 years in the construction industry. In that regard, the control group is defined not just by having no experience of dispute resolution, but also have the least experience of the construction industry. The next two subgroups had very similar levels of experience, with a median of 10year experience and a mean just above that level. The last subgroup, which represents respondents who have knowledge and experience of the DRB, was clearly the most experienced, with a median and mean around 14-15 years in the industry. This data correlates very well with the personal experience of the author, in that new graduates enter the industry with little or no knowledge of disputes and the dispute resolution process. This research is now able to demonstrate that after about 10 years in the industry, that knowledge and experience is established. However, it takes up to 5 more years of engagement before practitioners begin to engage with the DRB.

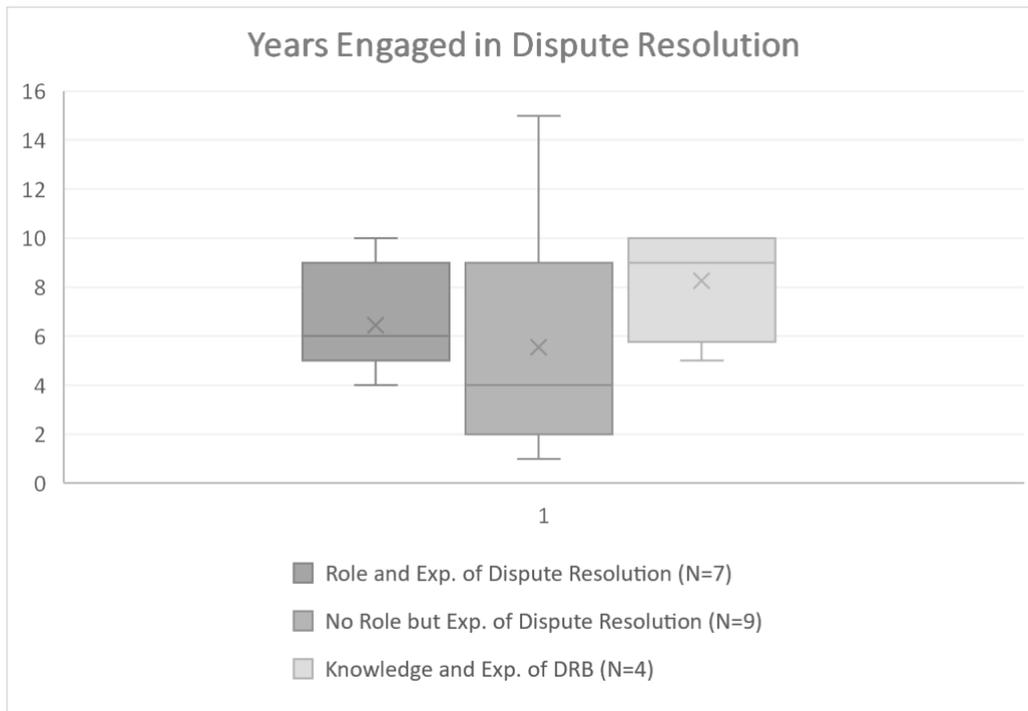


Figure 4. 2 Analysis of survey question 7 relating to the experience of dispute resolution in Saudi Arabia

Question 7 of the survey looked more closely at the experience of respondents who had engaged with the dispute resolution process (Figure 4.2). Figure 4.2 shows a surprising level of variety in the results for the three experienced subgroups. The data revealed that people with experience but no role in dispute resolution had the lowest median and mean levels of experience (4-6year). The group with a role in dispute resolution had a higher level of experience (median and mean about 6 years. However, again the group with experience of the DBR had the most experience (median and mean around 8 years). So here again, the analysis suggests that it takes about 6 years of experience of the dispute resolution process before an industry profession may be given a role in the dispute resolution process. After that, it takes at least two more years before the professional may reach a level of engagement that leads to contact with the DBR. Added to the data for Q6, this would point to a finding by this research project that, in Saudi Arabia, an industry practitioner would need to have 10-14 years of industry experience, and also 6-8 years of dispute resolution experience before becoming sufficiently well versed in the dispute resolution process to engage with the DBR. The rarity of engagement with the DRB may suggest that it is a port of last resort when trying to resolve disputes. To help assess that suggestion, Q9a tried to ascertain the extent to which disputes are resolved (perhaps early) in a friendly manner.

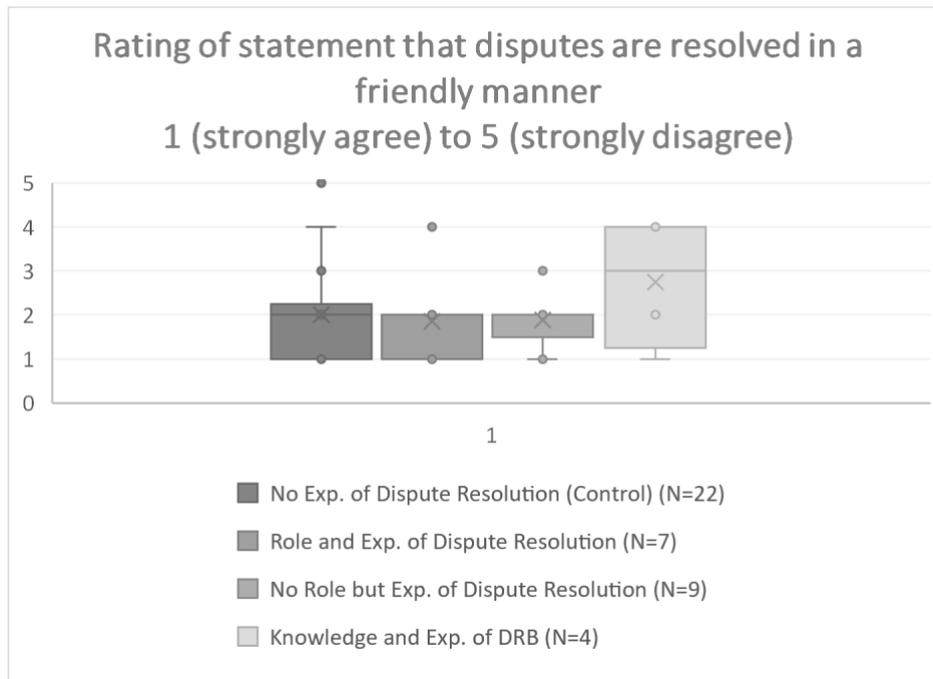


Figure 4. 3 Analysis of survey question 9a relating of a friendly manner of dispute resolution in Saudi Arabia

Question 9a of the survey sought respondent’s opinions to a suggestion that disputes in Saudi Arabia are being resolved in a friendly manner. This approach was suggested in the literature as a common means of resolving many smaller disputes; (Abdul-Malak & Jaber, 2016; Malik & Muda, 2015). Figure 4.3, reveals that responses to Q9a by the control group, the group with experience of disputes and the group with a role in dispute resolution were all similar and favourable, agreeing with the statement. By contrast, the most experienced group, with experience of engaging the DRB, were neutral. The inference that can be made here is that with little or no experience, the industry practitioner’s natural inclination is that disputes will be resolved amicably. However, as greater experience is gained, so that early (perhaps naïve) optimism is diminished. That said, some answers from even the most experienced respondents included those who agreed that disputes in Saudi Arabia are resolved in a friendly manner. That is a positive finding from this research about the Saudi Arabia dispute resolution process. The result also reinforces the idea developed from responses to Q7 that engagement with the DRB may only be for disputes in which amicable methods fail.

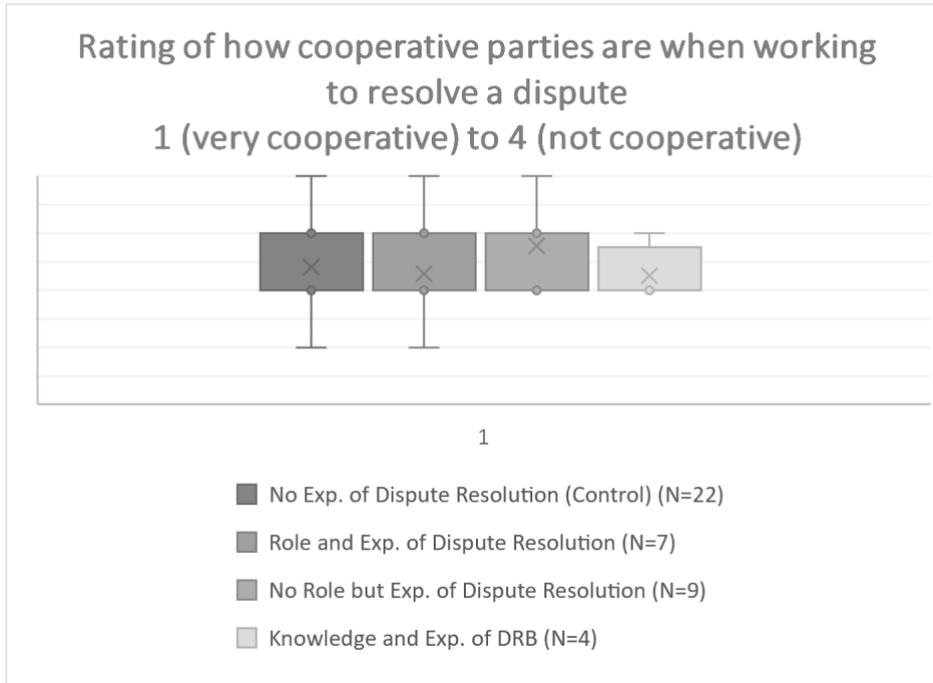


Figure 4. 4 Analysis of survey question 11a relating of cooperativeness of parties towards dispute resolution in Saudi Arabia To help understand answers to Q9a, Q11a sought some insights about how cooperative parties are when working to resolve a dispute. In contrast to the positive responses in Q9a, all groups suggested that parties were slightly less cooperative than they could be (means and medians ranging between 2-3). So, although many disputes may be resolved amicably, the process is not the most cooperative one.

From the literature review, the existence of the DRB is one aspect of the dispute resolution process that seems to be unique to Saudi Arabia; (Awwad, Barakat & Menassa, 2016). So, this research sought to gain views from industry about the usefulness of the DRB. Questions analysed above sought to assess how aware industry practitioners were of the existence and operation of the DRB and to gauge the level of engagement industry personnel have with the DRB. However, Q14 in the survey asked respondents to rate the usefulness of the DRB. Bearing in mind that only 4 respondents had actually engaged with the DRB, the results must be treated with caution. In relation to Q14, Figure 4.5 shows the average number of all data, respondents with no experience and those with experience but no role in dispute resolution are neutral on the usefulness of the DRB (mean and median rating about 2). Once respondents obtain a role and begin to engage with the DBR, then the opinion of the respondents becomes more positive (mean and median rating between 1 to 2). However, even the group with experience of the DRB do not wholeheartedly endorse

the DRB (mean rating close to 2). As such, this result is not an overwhelmingly positive one for the DRB and suggests that efforts need to be made to improve the perceived usefulness of the body.

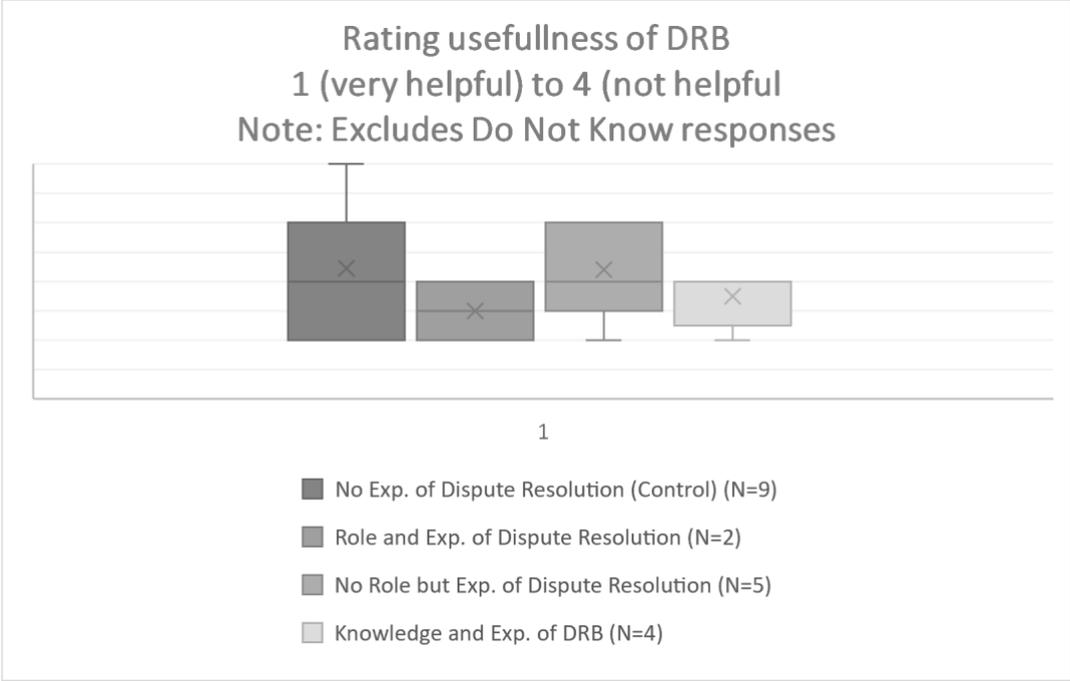


Figure 4. 5 Analysis of survey question 14 rating usefulness of DRB in preventing disputes in Saudi Arabia

Subsequent questions in the survey sought data on the causes of disputes. Q15 asked respondents to rate the suggestion that weakness in contract articles is the main reason why disputes arise on construction projects in Saudi Arabia (Figure 4.6). What was interesting in the results was that the least experienced and the most experienced groups were largely in agreement, most positively agreeing with the statement (mean and median scores between 1 to 2). Those with experience of disputes but no role were marginally less positive, but still broadly in agreement with the statement (mean and median about 2). However, the group with roles in dispute resolution included the most respondents who were likely to be neutral or even disagree with the statement. It is difficult to interpret this result accurately, but the author speculates that weaknesses in contract articles are generally accepted as the main reason what disputes arise. However, as practitioners take on formal roles in the dispute resolution process, their initial judgment is that other factors lie at the root of disputes. However, as their experience builds, they return to the initial view that articles in contracts are the main reason why disputes arise.

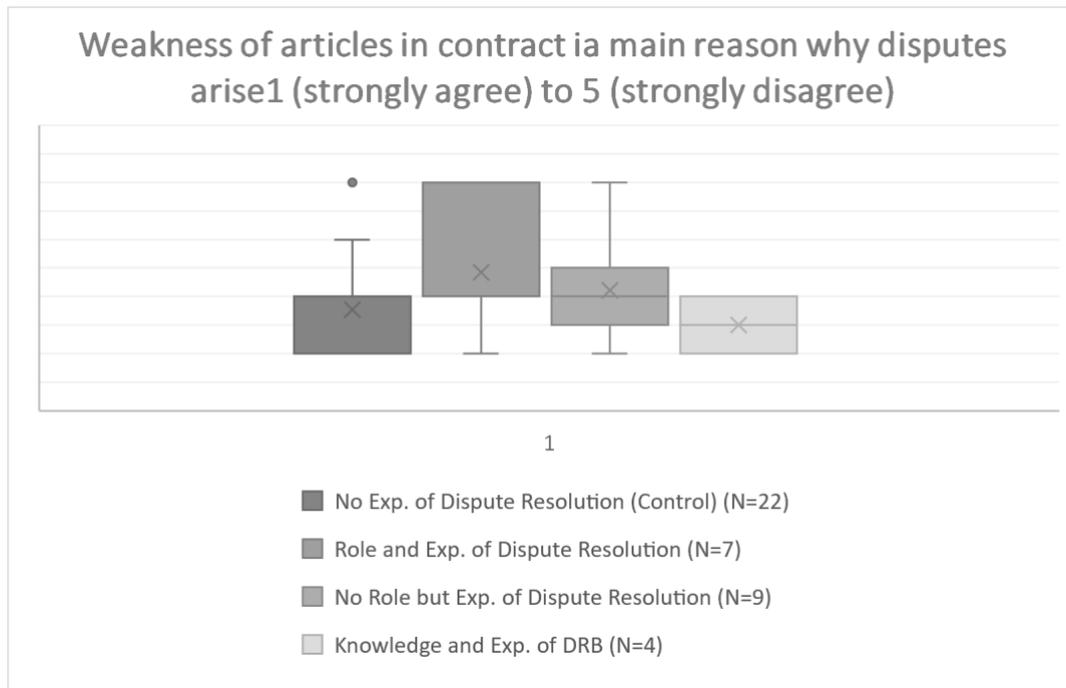


Figure 4. 6 Analysis of survey question 15 suggesting that weakness in contract articles are the main reason why disputes arise on construction projects in Saudi Arabia

The author then asked respondents to rank other common causes of disputes that featured most strongly in previous research (Assaf et al., 2019; Awwad et al., 2016). Those causes included:

- a) Time overrun
- b) Contractor led change
- c) Client change to the scope
- d) Late payment
- e) Lowest tender

Table 4.5 below shows the total respondents to this question, and Table 4.6 shows results as % of the total responses. Figure 4.7 then displays the % results in a histogram, and Figure 4.8 displays the mean score for each cause factor in rank order, most common on the left side to least common on the right side of the horizontal axis. The main finding from this analysis is that, in rank order, the most common cause factors leading to disputes in Saudi Arabia are:

- 1. Time overrun
- 2. Lowest tender
- 3. Client change to the scope

4. Contractor led change

5. Late payment

Table 4. 5 Results of answers to question 16 asking what are the most common factors that cause the disputes on construction projects in Saudi Arabia

(Ranked 1=most common, 5=least common)

	Q16a	Q16b	Q16c	Q16d	Q16e
Response Score	Time Overrun	Contract or Led Change	Client Change to Scope	Late Payment	Lowest Tender
DN	9	9	9	9	9
1	11	7	8	3	13
2	9	8	7	13	5
3	8	10	11	6	7
4	11	7	8	11	5
5	3	10	8	9	12
N	51	51	51	51	51

Table 4. 6 Results of answers to question 16 as % of total answers to each factor

(Ranked 1=most common, 5=least common)

	Q16a	Q16b	Q16c	Q16d	Q16e
Response Score	Time Overrun	Contract or Led Change	Client Change to Scope	Late Payment	Lowest Tender
1	26.2%	16.7%	19.0%	7.1%	31.0%
2	21.4%	19.0%	16.7%	31.0%	11.9%
3	19.0%	23.8%	26.2%	14.3%	16.7%
4	26.2%	16.7%	19.0%	26.2%	11.9%
5	7.1%	23.8%	19.0%	21.4%	28.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

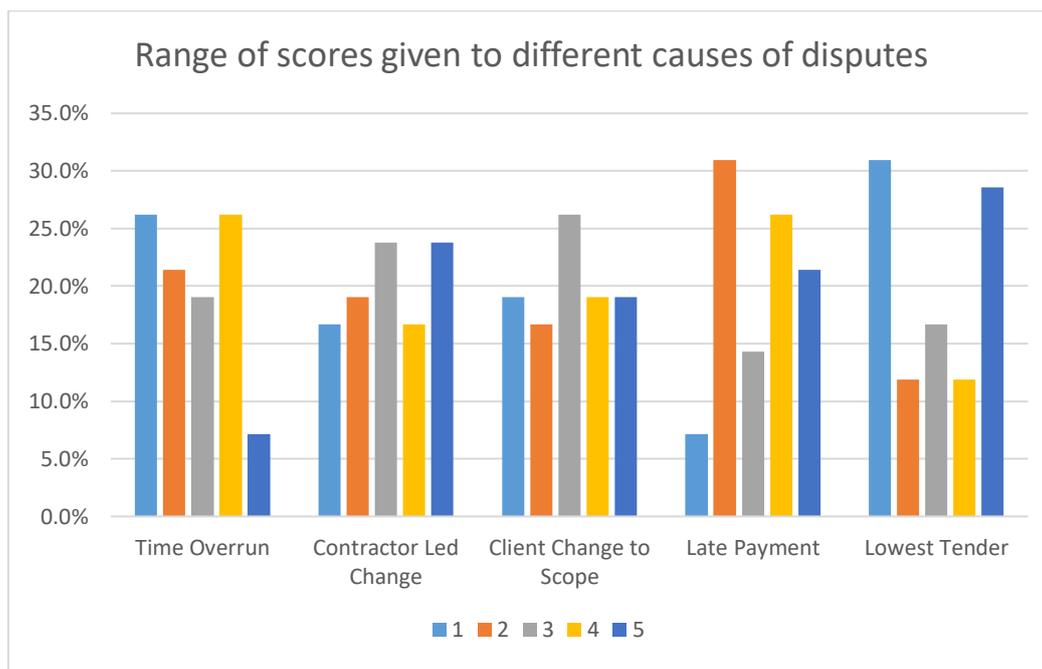


Figure 4. 7 Analysis of results for survey question 16 showing responses as % of total

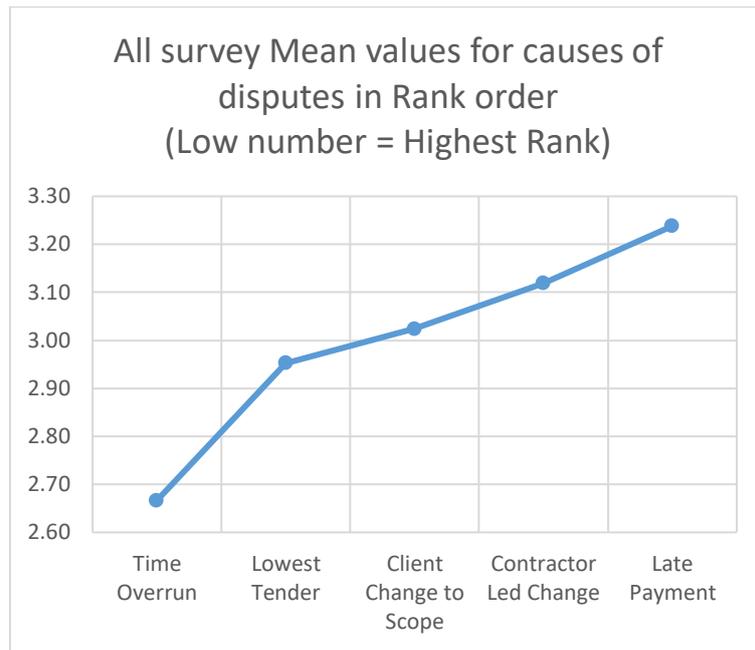


Figure 4. 8 Ranked results of answers to question 16 asking what are the most common factors that cause the disputes on construction projects in Saudi Arabia

The results for Q16 are largely in agreement with prior published research, listing time overruns and client scope changes as important factors leading to disputes. However, the second rank given to contracts awarded to the lowest tender was a surprise result and possibly points to a unique situation in Saudi Arabia. Looking in more detail at the results, the author was surprised to see no clear trend in the ranking scores for each factor, as all factors received a diverse range of ranking scores. Here again, however, the lowest tender factor achieved the greatest diversity in responses, with a bipolar distribution. It is interesting that the lowest tender factor received the highest proportion of top rank scores (1) and the highest proportion of lowest rank scores (5). Nothing in the data about the respondents. Further analysis of the results to Q16, showed how the different subgroup responses varied in relation to the overall mean results (Figure 4.9).

Figure 4.9 shows that the responses from the control group of inexperienced respondents most closely aligned with the overall survey result. Those with experience and a role in dispute resolution were more likely to think that time overruns were the most important factor and ranked the lowest tender factor as least important. Those with experience but no role in dispute resolution differed sharply from those with a role; ranking contractor led change as most important and late payment as least important. The final group and most experienced group differed sharply again, giving equal weighting to low tender awards,

client scope change and late payments as the most important factors and putting contractor led change as the least important.

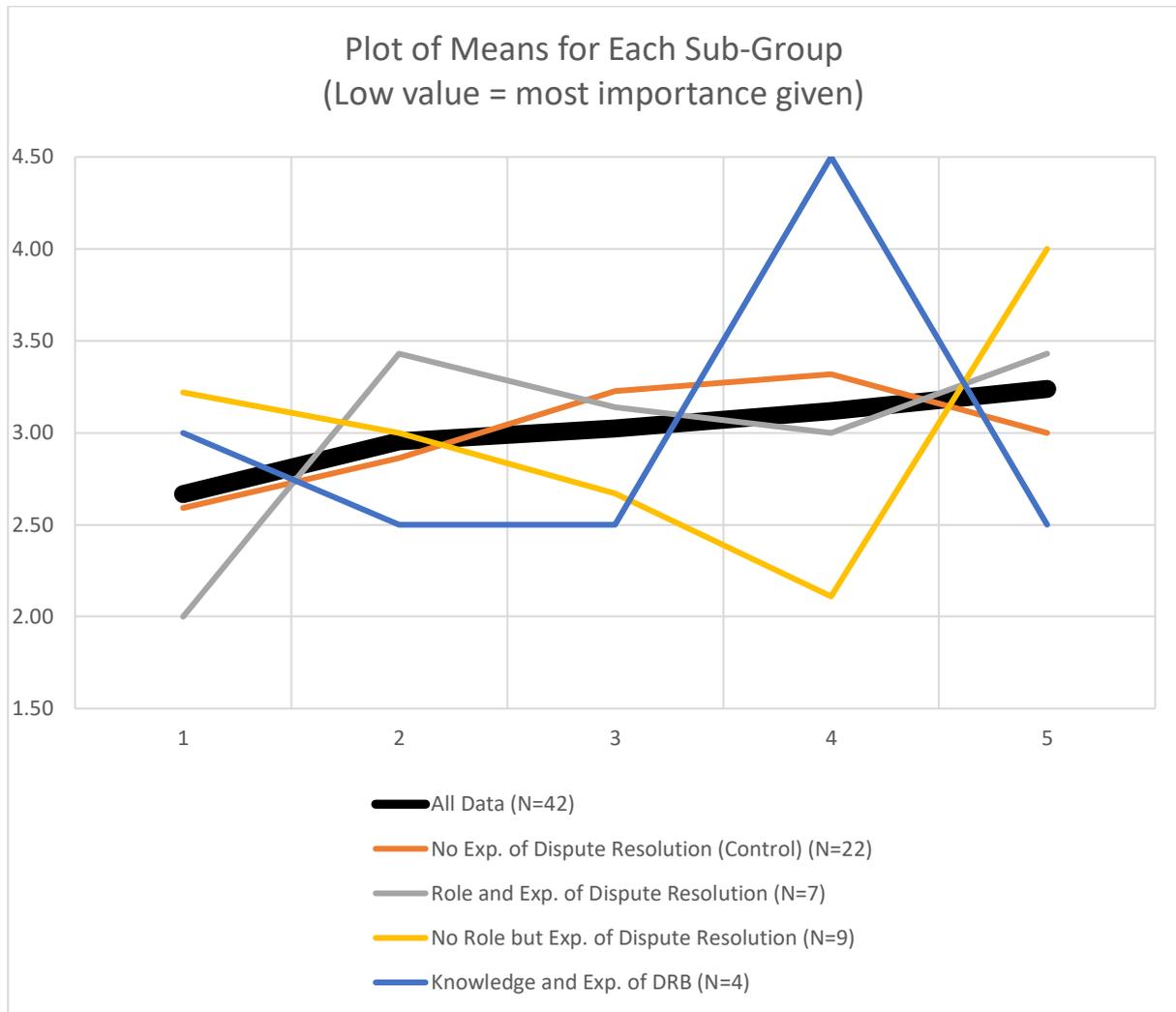


Figure 4. 9 Plot of mean values for each sub-group response to question 16

Figure 4.10 below provides an illustration of the significance of the variation in results for each subgroup in relation to the overall survey results. Most subgroup responses were within +/-20% of the overall survey mean. Four results lay within a range of +/-20-40% and one result varied by more than 40% from the overall survey mean. The most significant divergent result was the last result discussed above, namely that group with the most experienced put contractor led change as the least important. The four results with the next most significant variance were:

- a) Those with experience but no role in dispute resolution thinking that contractor led change was most important

- b) Those with experience but no role in dispute resolution thinking that late payment was least important.
- c) Those with experience and a role in dispute resolution thinking that time overruns were the most important factor
- d) Those with most experience and engagement thinking that late payment was most important

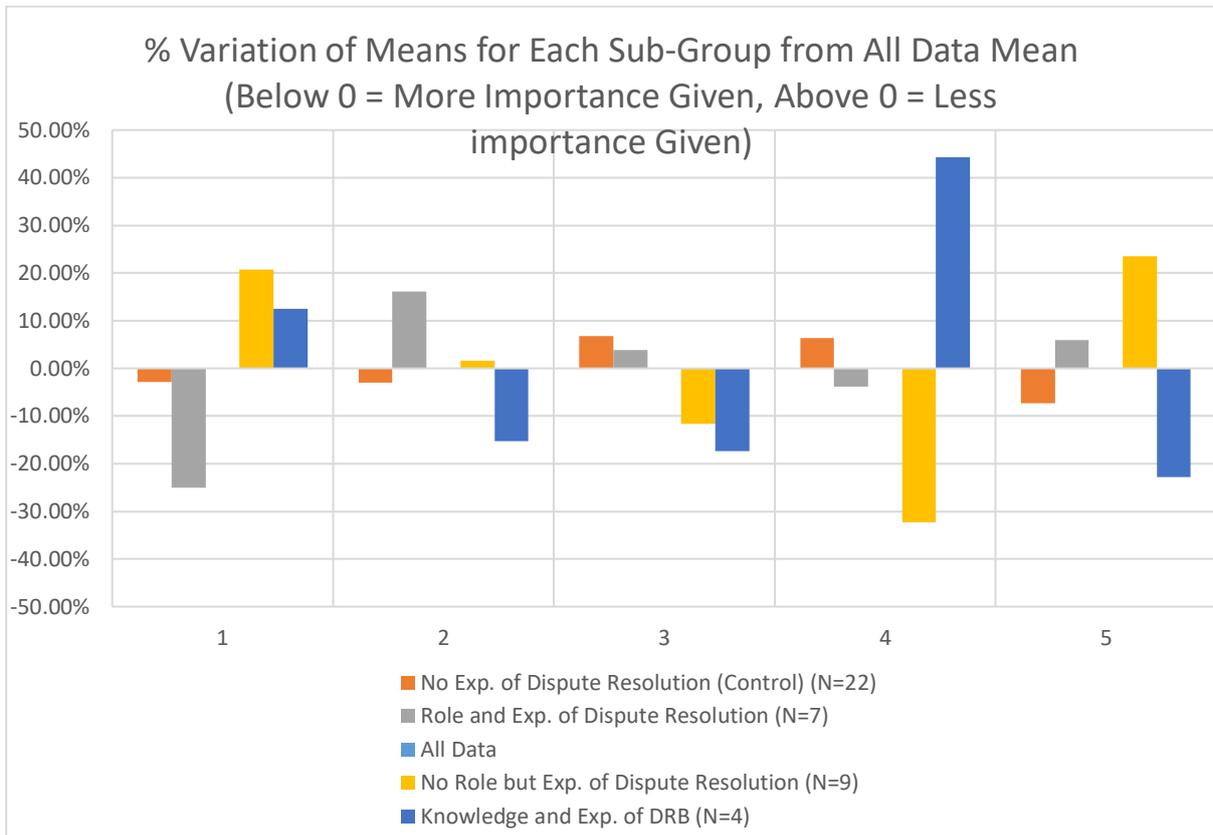


Figure 4. 10 Variation of each sub-group response to question 16 from all data mean values

Although the data is not definitive, it is possible to speculate that the variance in the results may reflect the viewpoint of the respondent. The JCCI data is helpful in this regard, illustrating how disputes causes are often linked to which party initiates the dispute, either the Payor (Client) or the Payee (Contractor). As such, it is possible that groups with a predominance of respondents with Payor representatives perceive time overruns (1) and contractor led change (4) as most important and late payment (5) and client change to scope (3) as least important. To some extent, the group with experience and a role in dispute resolution follow that pattern. Similarly, groups with a predominance of respondents with Payee representatives might perceive time overruns (1) and contractor led change (4) as least important and late payment (5) and client change to scope (3) as

most important. To some extent, the group with the most experience and engagement with the DRB follow that pattern.

Delving more deeply into the Payor/Payee split, Question 17a asked if clients always choose the lowest price tenders in Saudi Arabia. The survey question was prompted by suggestions in the literature that this was a factor in Saudi Arabia (Al - Kharashi & Skitmore, 2009; Alsuliman, 2019). Question 16 has already verified that not only is it a relevant factor, it is the second most important factor leading to disputes on construction projects in Saudi Arabia. Although this factor was not specifically mentioned in the pilot study, or in the JCCI data, the author considered that it was a point that needed clarification. The results for Q17 (Figure 4.11) showed two distinct patterns of responses. The control group, with no experience and the group with experience but no role in dispute resolution, agreed quite strongly with the suggestion that clients always choose the lower tender price when awarding contracts. However, the groups with the most experience and with roles in the dispute resolution process almost unanimously agreed, but not as strong as the other groups. Either way, all respondents, other than two outliers, agreed with the suggestion.

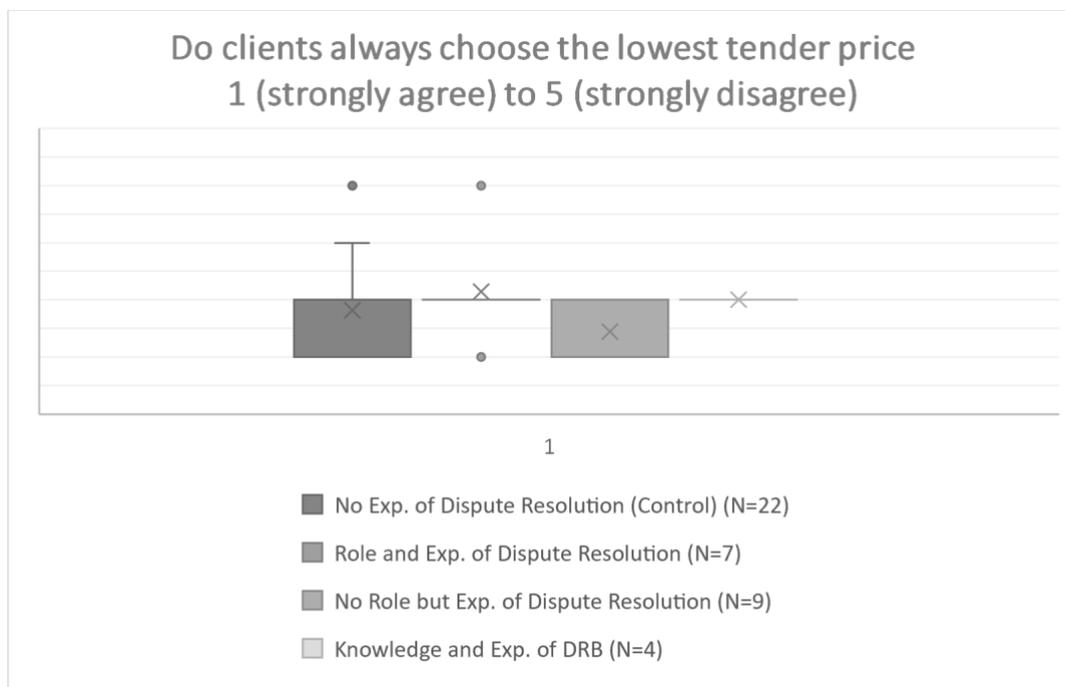


Figure 4. 11 Analysis of survey question 17a asking if clients always choose the lowest price tenders in Saudi Arabia
 Question 17 marked an end of the questions related to disputes and their causes in the questionnaire survey. With the analysis complete, the author again reflected on the scenario presented at the start of this chapter. What seemed clear now, is that if the

disputing parties had less than 10-14 years of experience in the industry, then they were unlikely to have developed a deep understanding of the cause of disputes in the industry. In addition, if they had not had 6-8 years of experience of dispute resolution, then they were unlikely and engaged the DRB to help resolve their dispute. That said, even they had referred their case to the DRB, their experience may not have been an overwhelmingly positive one. Despite their level of experience, it is also highly likely that they will have attempted to resolve the dispute in a friendly manner first, although one or other party is likely to have been less than cooperative in that effort. The fact that they had no written contract, also aligns well with survey results that reveal weaknesses in contract articles are the main reason why disputes arise. Finally, the basis for their dispute may be linked to the third most common cause of disputes that being client-initiated changes to the scope of the contract.

4.4 Detailed interviews to understand the basis of disputes and their resolution in Saudi Arabia

During the interviews, respondents were asked four questions about disputes on construction projects in Saudi Arabia (SA). The first addressed common reasons why disputes arise, the second related to the extent to which disputes are resolved amicably, the third asked about the process followed when amicable settlements fail and the fourth explored the extent to which disputes involve parties lower down the supply chain. For the analysis of the data, interviewees were grouped into four categories: Arbitrator (A); Legal Consultant (C), Construction Manager (M) and Lawyer (L). A further sub-grouping was then applied, based on the level of experience of dispute resolution in SA: More than 10 year was high (H); 1 to 10 years was moderate (M); less than 1 year was low (L). For three interviewees, the level of experience data was not revealed (DN) (Table 4.7).

Table 4. 7 Coding of interviewees based on role and experience

Classification by role	Code	N	Formal Exp.			
			H	M	L	DN
			>10yrs	1-10yrs	<1yr	DN
Arbitrator	A	1	1	0	0	0
Legal consultant	C	4	1	1	1	1
Manager	M	5	0	1	2	2
Lawyer	L	8	5	2	1	0
Total		18	7	4	4	3

Interviewee no.	Name	Code	Exp.
1	P1	C	H
2	P2	C	DN
3	P3	C	L
4	P4	L	M
5	P5	L	H
6	P6	L	H
7	P7	M	L
8	P8	M	M
9	P9	M	DN
10	P10	L	H
11	P11	L	M
12	P12	L	H
13	P13	M	L
14	P14	L	H
15	P15	C	M
16	P16	M	DN
17	P17	A	H
18	P18	L	L

The Arbitrator, Managers and all but two Lawyers (Interviewees 04 and 18) were Saudi nationals with considerable experience of the construction industry in SA. The Consultant group and Interviewees 04 and 18 are notable, as they were either foreign nationals or academics. In that regard, their opinions can be viewed, in this analysis, as slightly more objective and more broadly-based than the other groups. The analysis starts with the view of the Arbitrator and Lawyers, before moving to the Managers and then lastly the Consultants.

4.4.1 (Q3A): Common reasons why disputes arise on construction projects in Saudi Arabia

In relation to Question 3a, which addressed common reasons why disputes arise, interviewees were presented with the three main reasons frequently cited in the literature; (Assaf et al., 2019; Essex, 1996; Hackett, 2002). These included:

- Work is not finished on time.
- Payments to parties are delayed.
- Changes are made to the project scope during construction.

Hence better contract documents make better provision for potential risk Essex (1996). Moreover, the contract is the first and basic document that each party will refer to when dealing with a dispute Godwin (2012)

Then, interviewees were asked their opinion about what the most common reasons are in Saudi Arabia and if they believed that the reasons were changing over time.

Arbitrator - With high level of experience

The arbitrator P17 presented an insight into the operation of “good faith” in SA, which is not something that was well addressed in the literature:

P17: The most common one, as I said, is linked to the good faith agreement between the parties, which covers most of the other reasons. The contractor believes that, if he delayed the project, the client would understand and consider that delay kindly, but in practice, that does not happen. There is a high risk on construction projects, and most of the time, the risk is not assessed and the forward planning to mitigate it, is missing. I still emphasise the link to the good faith principle. (Interview 17)

It is possible that the good faith principle is a unique feature of the Saudi construction industry disputes, which is why other research has not described this result more extensively. That said, more evidence is needed to verify that conclusion. Five of the lawyers had a similar level of experience in the handling of disputes in SA as the arbitrator, and their views would be helpful in judging if his belief was widely held. The lawyers' experience ranged from 25 to 14 years and are considered from the most to the least experienced.

Lawyers - With high levels of experience

The lawyer P6, considered that poor documentation was the main reason for disputes.

P6: Poor contract documents always lead to disputes sooner or later. Many projects are missing some legal parts in their contracts, such as the rights and duties of each party. Confusion in the division of responsibilities between contractor, client and consultants will lead to disputes. (Interview 06)

To some extent, P6 comments link well to the view of P17, as good faith agreements may lead to poorly written contract documents. P10 divided the reasons into two groups, constant and periodic. Periodic reasons may be technical and specific to project circumstance, but he also agreed that the main constant reason is that contract documents are poorly written.

P10: I would put the reasons into 2 main categories: 1) Constant reasons and 2) Periodical reasons, which relate to current circumstances. In the second category, for example; the lack of funding for construction projects from the government these days leads to the client not paying the contractor after the job is completed. Therefore, we have a considerable number of disputes because of delay in payment. These types of reasons are temporary and will disappear once the surrounding situations are better. In my opinion, the constant reasons in construction disputes...relate to compensation for the damages, either financial damages or damages related to time (such as a delay in mobilisation). Most likely these kinds of damages are not included in the contract documents, or it could be due to change orders or construction extensions (increased scope of works) or even delay in completing the construction by the time agreed in the contract. I am not exaggerating, but 75% of the cases I have handled are related to these reasons. Mainly the contract documents are poorly written. (Interview 10)

P10 stated that the lack of funding the project from the government is one of the main causes for disputes which is linked to late payment that was analysed in the survey earlier in this chapter. P12 shared the same views with P10 that financing and the late payment are causes for disputes in the projects.

P12 provided additional insights into what P10 may have called periodic reasons. P12 suggested that some periodic reasons are becoming more common, as the wider economic factors impact on public sector clients' ability to pay for construction work.

P12: Generally, finance and payment are the main reason for disputes. Especially if there are subcontractors, who cannot get paid unless the main contractor gets paid. Recently, public projects have had payment delays. Another reason is a technical reason, related to specification and change orders, but this reason is not a primary one, as the previous ones. Certainly, these days the economic wheel is moving slowly in SA, and this has a big impact on the construction industry. Some big contractors have become bankrupt, and they have sub-contractors working under them. These main contractors have a huge number of disputes. (Interview 12)

P12's views might well be a SA specific finding, as there is little evidence of this being a common reason in other research findings. In contrast to the previous views, P5 put the reasons for most disputes down to the local culture. P5's view was not unlike P17's good faith principle, but P5 provided a great deal of detail about how that principle creates the circumstances for disputes to occur. Helpfully, P5 also proposed mechanisms by which the level of disputes may be reduced by reframing the role of the consultant. P5 also stated there is a lack of understanding in the local culture when the parties get into contractual agreement. P5 also mentioned about how contract documents can be a major source of disputes if they didn't have enough details. That link to the arguments discussed in the chapter 2 about the contracts in construction Essex (1996).

P5: It all (common reasons for disputes) refers to the local culture and the contractual agreement. What I mean is, the understanding between the client and the contractor is that they both have mutual benefit from the project. Therefore, disputes will lead to work stopping in the field, and it will, for sure, affect both parties and the continuity of the contractual agreement. Another essential reason is the indistinctness of the contracts and that people who are producing the contract documents are not specialised and not aware of the local arbitration law. The third reason is the arbitration condition itself, as foreigner law is not applicable in SA unless it is stated in the contract. The consultant is the first line of defence [for the

client and the contractor] in the contracts. If they work efficiently and professionally and remain neutral, then that will decrease the frequency of disputes. I suggest that the consultant has a role in dispute resolution, especially the disputes that shouldn't go to courts. That role is mentioned in FIDIC. Disputes are always happening on projects; therefore, there should be a good culture of how to contain these disputes and never lead to a stop the work. Hence, if there is a dispute, either the disputants go to the court or to arbitration, but the work in the field doesn't stop. Here is where the role of the consultant is essential, is best positioned to be part of the dispute resolution process. Such a role should be included in the contract, but the consultant must be neutral to perform his role properly. If the parties choose to go to arbitration or to the court, the consultant's input into the disputes will be considered. (Interview 05)

The last lawyer in the highly experienced group mirrored suggestions by P10, grouping reasons into two similar categories (Internal and external). To a large extent, P14 echoes similar suggestions raised by others, stressing the problem with poorly written contract documents and external environmental pressures, forcing clients in SA to change the scope of projects, delay payment or even terminate agreements in order to conserve funds.

P14: From my perspective, the reasons (for disputes) are divided into two main groups: Internal reasons that are related to the parties (client and contractors); External impactful reasons. Internal ones such as; the client's interest has changed in the project, mainly because the client does not see the benefit of the project, and he is delaying the payment, which leads to disputes. Change of organisation structure in the client and maybe a new CEO, who did not initiate the project; The contract documents are poorly written and not detailed enough; Lack of project funding, this reason could be internal or external. The external ones such as the general economic environment, which affects mainly the public projects and that leads to many disputes and project delays. Changes in material prices or the materials that the client wants for his project. Without changing the budget, which was initially based on specific materials and prices. When it changes, the client starts to be concerned and fears to lose his budget, so disputes arise with the contractor to stop the project.

Disputes also start due to contract termination or the client withdrawing money given to him by the contractor, as a cheque of warranty. Consequently, the client will try to handover the project to another contractor at a lower price. (Interview 14)

Lawyers - With moderate levels of experience

In this category, P11 was a Saudi national with a reasonable level of experience (8 years). His view reinforced suggestions from the previous group, namely that delay in payment is a reason behind many current disputes in SA.

P11: Delay in payment particularly. Contract termination also, and when there is a declared reason, like the contractor does not complete the job as per the specification or there is a delay in the completion. However, the real reason, and most likely an unknown reason, is giving the project to another contractor. Contract termination, as a reason, always come from the client-side, and this reason is behind many disputes on construction projects in SA. (Interview 11)

P4 is the first of the interviewees with an international background. Her views stressed the prevalence of changes to the scope of works as the most common reason leading to disputes. Here again, that suggestion could be rooted in both the excellent faith cultural principle and the severe financial environment, which are placing considerable stress on construction projects in SA

P4: The 3rd reason (changes are made to the project scope during construction) is the most common reason for disputes. There are always elements of other reasons, which link to delay. Delay is always there, but the third one is the most important one. I think many people cannot make up their minds and are not able to predict or see the big picture in advance. As the project develops, they do not want X; they want Y instead. I think it is an inability to know what they want at the end of the project that is the reason for many disputes. (Interview 04)

Lawyers - With low levels of experience

The final lawyer was both international and new to the dispute process in SA. He was reluctant to blame disputes on the local culture and stressed instead the lack of effort put

into preparing adequate contract documentation. However, he also raised some important thoughts about the restrictive laws, especially relating to the hiring of skills people that may be hampering progress in the industry.

P18: I think that reasons for disputes here in SA are not related to Saudi culture specifically. They are related, as I said, to the quality of documents that are produced and have nothing to do with the culture. Nothing is wrong with the gulf culture, including SA. The main thing is the documentation, which is not up to the level needed in SA. They (companies) do not hire the right consultants to produce the documents, and they are always looking for the lowest price. When you have a professional organisation prepare the documents, in this case, you can deal with conflicts before they need formal dispute resolution, arbitration or mediation. Resolving the dispute early with proper documents is important. Actually, every project has its problems and potential disputes. Some organisations have problems with cash flow. Some need additional work or have variations in the middle of the project because it was not designed properly. On others, the client keeps changing his mind about what he wants. We also have issues regarding labour law in SA. Sometimes you cannot get the people you want because local Saudi law does not encourage that. There are restrictions that prevent you from bringing in the right professional people to handle the job. (Interview 18)

Managers - With moderate levels of experience

There were no managers with high levels of experience and only one with a moderate level of experience. Here again, however, scope change and delayed payment were highlighted as the two most common reasons for disputes in SA.

P8: Most of the reasons are financial reasons. Scope change by the client in the middle of the project and delay in payment from the client side are different sources of disputes. Change in specification takes us back to the lack of detail provided by the clients for each construction project. Most of the reasons are financial issues. (Interview 08)

Managers - With low levels of experience

P7 had no experience of dispute resolution, but he was clear in considering that contract documentation was poor, largely due to the verbal nature of many agreements (the good faith principle).

P7: Contracts are not clear, and most agreements are verbal. Verbal terms are not included in written contracts. Therefore, most contracts are poor and don't have clear procedures on how to resolve disputes. (Interview 07)

The remaining managers (P13, P9 and P16) were less specific about their advice or their level of experience. Their advice could be summarised as relating to unrealistic expectations by clients placed on contractors. This is not linked to the good faith principle, but more of a technical issue – not thinking carefully enough about the design and detail of the project and its implementation.

P13: I already mentioned them in my introduction (Interview 13)

P9: One of the main reasons is not meeting the project's objectives, whether these objectives are tangible or not. This is what summarises most of the reasons for disputes, even when it is described as focussed on finance or quality or a deliverable or the bill of quantities or materials. A lot of things can actually belong to the project's objectives, and this is the main reason for disputes in my point of view. As we are talking about the construction industry, this is the main reason. (Interview 09)

P16: The four main reasons for disputes in the Saudi construction industry are: 1) Delays in finishing on time; it is the most reasons for disputes. Usually, there are two issues, generally relating to the employer (owner) and not the engineer (the contractor). The owners are unrealistic in the time they set for the completion of the project. They want the project to finish quicker than is reasonable. They are very subjective and not expert in analysing what a reasonable time is. For example; in material purchases, there can be long lead times if they are not ready on the shelf. It sometimes needs 3 to 4 months to manufacture them. Besides, the owners sometimes want the project to finish in a shorter time, but are not willing to pay any extra cost to achieve that goal. They want the contractors to work all the time, without a break. 2) Changes to the scope. Why does it happen? The design

information provided by the designer is not coordinated and is incomplete, which creates gaps and missing information during the execution, which will lead to disputes. 3) Changes which are related to no 2 and which cause delays. 4) Delays in payment, and I will put this as the second most common reason for disputes. By the way, 90% of disputes are based on technical issues. There is no change likely to occur in these factors in the future. Of course, it relates to the culture and, as I said, people do not read the details of the scope of work or even the contract documents. If you are a contractor, and you went through the tendering process to win the job. The short notice from the owner does not give you enough time to read the full details of the scope you'll submit your bid with drawings missing and insufficient information. Sometimes, because of the unrealistic tender times given by the client (3 to 4 weeks maximum to submit a bid), the contractor underestimates the scope of the work and, once the construction work is going, disputes arise. (Interview 16)

Consultant - With high levels of experience

As stated above, the consultant group offer an objective view of the SA industry, being made up of foreign nationals and academics. P1 was the only consultant with a high level of experience in dispute resolution. Interestingly, his views echoed those of the last group of managers above, in that the main reason for disputes as a lack of adequate planning and the setting of unrealistic objectives.

P1: I would say, from the cases I reviewed, 90% of them have extension in time or time-related impact as a component. There are other reasons, which speak of a lack of forward-thinking and planning. I think that also stems from unrealistic goals set by the project owner (client). One example that jumps to my mind is the King Abdullah University- KAUST. A five-star university to be built in 2 years, I think it is unrealistic. I understand what is driving that, but still unrealistic. Delayed payment is a problem, both in private and public sectors. Scope changes stem from all people. Perhaps more on the owner side, people do not understand the type of contract to use. The owner wants to shift all risk to the contractor but still maintain control of the design and construction phase. If you want to maintain control that's more of a cost-reimbursable or cost-plus type of project. If you want to shift the risk all onto to contractor, you also shift control, and that causes a lot of problems here in SA.

Multiple clients change minds; they are continually disrupting progress, but do not want to pay. Design development is not viewed as a change order, and it leads to disagreements. (Interview 01)

Consultant - With moderate levels of experience

P15 echoed the reason for delays in payment on public sector projects, poor planning and also problems with the workforce (all reasons cited above). However, it also considered that the relationship between client and contractor was one of the competitors and not collaborators on a project, which was an unusual insight not previously raised. This observation is essential for two reasons, P15 is a Saudi national, and he is an academic professor of engineering. As such, he provides a valuable insight into the challenges linked to the good faith principle raised above, which may not operate effectively if the parties are competitors, rather than collaborators.

P15: Delay in payment, as I said, especially in the public sector. There are financial problems in the public sector, so the client cannot finance the project. Scheduling of project activities, as the contractors, submit their schedule in the tendering process, but after that, the project schedule is not updated, and then the disputes happen. Shortage of workforce, which affects the progress of the construction works. The relationship between the client and the contractor is competitive, not cooperative. (Interview 15)

Consultant - With low levels of experience

From P3's perspective, technical interpretations of specifications and contract conditions was a common reason for disputes. This is a useful insight and emphasises that even of a contract document is written and full of detail, disputes can still arise, due to how clauses and terms are interpreted by different parties.

P3: Mainly, I can tell that for most of the cases, the reasons are different interpretations of terms in the conditions of the contract. Other reasons are changing the scope of work (from client mainly), other changes from both sides (client and contractor) and different interpretations are given to certain specifications (either SA specifications or international specifications). Sometimes there is a conflict between certain specifications; in those cases, there is a dispute that is basically on a technical

point. Also, some disputes relating to the interpretation of how changes impact progress, that is also a common cause of disputes. We recognise that impacts may affect either the client cost or the contractor cost. Sometimes is the understanding of the interpretation of how the critical path supposed to work. (Interview 03)

Consultant - With unspecified levels of experience

P2 did not specify his level of experience, and his comments mainly related to poor planning and changing scope of works (as previously mentioned above).

P2: Contract schedule and more time as a result of contract changing. They need time, and they want to extend the contract end date. The costs (direct and indirect cost) that is the main one resulting from changes in the schedule. (Interview 02)

In summary, this question has revealed that many reasons for disputes are project-specific and do not differ wildly from findings by other research. Namely that many disputes on construction projects in SA results from changes in the project scope, delays in relation to unrealistic objectives, poor planning and confusion about the interpretation of technical aspects of contracts and specifications. That is what the literature revealed as Assaf et al. (2013) , emphasised various variables that directly relate to the evolution of disputes on construction projects in Saudi Arabia. Where the interviews have been most revealing is in describing reasons for disputes in SA that are less well reported in published literature and that may well be unique to the Saudi context. Specifically, the prevalence of a “good faith principle” that leads many parties to enter into complex construction activity without spending time thinking in detail about the project. That approach may work well in normal circumstances, but there is evidence from the interview data that pressures arising from the external economic environment in SA are squeezing client budgets and forcing them to consider their ability to meet financial commitments on construction contracts. That pressure may be leading to an excess of scope changes on projects, delayed payments and even the termination of projects. It may also be undermining the traditional good faith culture, turning a collaborative partnership between clients and contractors into an adversarial and competitive relationship. This is an important finding from this PhD research.

What is perhaps most telling is that the context for disputes as outlined by the interview respondents correlates extremely well with the scenario presented at the start of this chapter. Clearly, in the scenario, the parties commenced in accordance with the SA culture of good faith. In that respect, they did not waste time (in their view) in drafting detailed and complex contract documents. However, severe external economic conditions in SA may have forced the client to terminate the project prematurely. In so doing, the collaborative partnership between the client and contractor, so that now they are competing to win an argument about who should pay the other for losses incurred.

4.4.2 (Q3B): Amicable resolution of disputes on construction projects in Saudi Arabia

In Q3b all disputes on construction projects can be resolved amicably if the parties are willing. Amicable methods of resolving disputes may involve conciliation and/or mediation. The literature revealed that if the dispute happens, the amicable approach shall be practised between the parties, which is called "Sulh".

In your experience, what percentage of disputes on construction projects are resolved using amicable methods and which methods are most common/effective? Is there a cultural link to this situation?

Arbitrator - With high level of experience

In the context of amicable dispute settlement, P17 linked this approach to "Sulh", which he linked to the mediation process. But, Sulh is a process unique to SA and other methods like mediation are not applied in SA. According to P17, Sulh may be seen at the traditional cultural ways of resolving disputes in SA, but its use is becoming less frequent as contracts increasingly refer to litigation and arbitration.

P17: The Sulh is common here. Mediation is kind of the amicable way, but it is not applied here in SA. The principle of Sulh is related to the local culture, and in Sulh, one of the parties offers a concession to reach a reasonable agreement with the other party. It depends on what is written in the contract. Previously, almost all contracts included the court option only, in the last 8- 10 years the arbitration clause has been included. (Interview 17)

Lawyers - With high levels of experience

P6 sheds some light onto one possible reason why Sulh may be less common. His opinion seems to be a bit at odds with P17, in that he considered that the amicable method is not effective. He does confirm that mediation and conciliation are not options in SA.

P6: 1 case in Million (is resolved amicably). All contracts state that disputants shall try the amicable way to resolve disputes, but it is not effective, and they eventually end up going to arbitration. Neither mediation nor conciliation is applied in SA. In the Arab world, disputes take the shape of personal clashes, where each party considers the other as his enemy. (Interview 06)

The response from P10 seems to back P6's claim that very few disputes are solved amicably. However, what all interviewees so far revealed is that all disputes do try the amicable methods first.

P10: The percentage does not exceed 20%, because most contractors do not go to court unless they have tried the amicable way. These cases do not reach that end [court] until the disputants have tried to solve the case without arbitration or to go to the courts but do progress when that effort eventually fails. (Interview 10)

About Sulh, P12 provided an important detail, namely that the use of Sulh is registered officially in court and its decisions are enforceable. That could also be a reason why the process is declining in popularity, especially when other measures like arbitration are becoming more common in contract documents.

P12: Use of the amicable method depends on the disputants, and it is preferable that the friendly approach (Sulh) is registered officially in court, to avoid any future disagreement. In that way, the decision will also be enforceable. (Interview 12)

P5 was at odds with the other lawyers, considering that many disputes are resolved in a friendly manner. However, his view may be skewed to the larger projects and professional (possibly international?) contractors, with the suggestion that the high failure rate in amicable settlements is on smaller projects with smaller local parties involved.

P5: There are many disputes that are resolved in a friendly manner. Especially at the level of the big and professional contractors, as they do not want to waste time and money and also spoil their relationship with their clients. (Interview 05)

P14, again emphasised that all disputes try the amicable approach first and he shed more light on the assumption made above about P5's comments. Specifically, in big projects with significant disputes, the consequences associated with losing at litigation or arbitration are more severe, but that risk may be less of an issue on smaller projects.

P14: The answer to this question needs a survey of cases, but generally, the amicable approach is applied before the disputants reach out to lawyers and arbitrators. From my point of view, most disputes in the construction industry resolve them amicably, because they know the bad consequences of litigation and arbitration, financially and time-wise. (Interview 14)

Lawyers - With moderate levels of experience

P11's views aligned quite well with his more experienced colleagues, considering that the amicable method is rarely applied. However, he added an interesting insight about Suhl, in that it is easily avoided if one party declines to take part.

P11: The next step is going to court in cases where there is no arbitration. The amicable way rarely applies, because the party who is in a strong position does not want this approach [Suhl] to resolve the dispute. The case might take longer to resolve, but eventually, you will get what you came for, in the court route. As I said, parties in a strong position do not like Suhl, because usually the decision will be a compromise and the strong party will not get the full level compensation that they think they deserve. (Interview 11)

The female international lawyer, P4 simply reaffirmed a view that the amicable method is common, but she was not able to shed light on how frequently it succeeds.

P4: From what I have heard, in SA, it is very common to solve disputes in a friendly manner. (Interview 04)

Lawyers - With low levels of experience

In contrast to P4, P18 was very clear in his opinion that 90% of disputes are resolved amicably, and he likened this to give and take culture (Sulh?). He also added a useful and essential insight that legal advisors play a crucial role in facilitating the amicable resolution of disputes.

P18: If we consider all disputes, more than 90% of the disputes are resolved amicably. Again, it is part of the local culture, as we like to shake hands and resolve the dispute in a friendly way. If we have the right legal advisors, to tell us the strengths and weaknesses in our case, then you can resolve it amicably. This situation is a bit like a "give and take" culture... (Interview 18)

Managers - With moderate levels of experience

Within the manager group, P8 agreed with the lawyers P18, P4 and P5 in asserting that most disputes are resolved amicably. However, he identified that the motivation for that was to avoid the other methods of dispute resolution because of the cost and time involved. His answer possibly sheds light on comments by P5 and P14, that larger disputes and parties prefer the amicable method, whereas smaller disputes and parties may prefer other methods to resolve the dispute.

P8: Most disputes are resolved amicably, to avoid arbitration or litigation, due to time and money wasting. More specifically, arbitration's cost is high, and therefore the parties will go for the friendly approach first. (Interview 08)

Managers - With low levels of experience

P7 continued the positive assessment that most disputes at least try the amicable method first. He confirmed the issue of delay and cost as a reason for the amicable methods but added a lack of trust in other methods as another reason why that is the case.

P7: Most disputes are resolved amicably in the first place. People do not trust the court or the arbitration process. That is due to time-wasting and cost, respectively. Parties think that they can get a positive settlement using an amicable approach, rather than waiting 2 to 3 years and then be unhappy by the final awards from the court. (Interview 07)

P13 was less sure about the extent to which the amicable method is used. However, he provided some useful insights about the issues a contractor considers when assessing which dispute resolution pathway to follow. Specifically, he stressed the impact that the dispute may have on the relations between the parties and the impact of on future workload. This could again help to explain the divide between pathways chosen on large disputes (amicable) and those on smaller local disputes (adversarial).

P13: I cannot give an exact percentage, but the dispute usually happens due to unclear contract terms. The amicable resolution process does exist, but it is limited and is within the contractor's authority to choose how flexible he is. There are solutions such as; stop dealing with the contractor from the client or terminate the contractor. Sometimes, the client puts the contractor on a blacklist if he is not capable of doing the job. Another point, the contractor does not take the legal path (court), unless he makes sure that he will win the case. Otherwise, he will lose time and money, and he will probably find himself locked outside the market (Interview 13)

The final two managers, P9 and P16, were like the lawyer P4, reflecting the view that all parties try amicable methods to resolve their disputes in the first place.

P9: It depends on the contract. I think you will need to ask this question to a real lawyer. They deal with real cases and the analysis of disputes. Parties try to resolve disputes amicably in the first place, or they go to arbitration or the court. (Interview 09)

P16: 100% of disputes are resolved amicably. (Interview 16)

Consultant - With high levels of experience

The first international legal consultant, P1 reflected the same sentiment as the last two managers above, stating that many disputes are settled through negotiation (amicable method). He also suggested that every construction project is likely to have a dispute, and he referred to the Saudi culture of mediation (Sulh) as an effective avenue for dispute resolution in SA.

P1: I think many disputes are settled through negotiation. Construction contracting is a very uncertain business, full of risk. There are 2 certainties in construction

contracts. 1) There will be changes. 2) There will be disagreements. So, when the disagreement arises, depending on the relationship between the two contracting parties (primarily the project manager for the contractor and for the owner) if they have a good relationship, they can sit down and talk about it. They can settle the difference. If not, my understanding, which speaks to the cultural side, the Prophet Mohammad (May peace be upon him) was known to be a great mediator, and he teaches mediation. It is in the Quran, culturally. I think part of the culture is that we meditate, so I would say that's probably one of the more effective avenues. Now arbitration is getting more popular in the kingdom but before it is a litigation and to go to the judges. (Interview 01)

Consultant - With moderate levels of experience

The academic professor, P15, also took the view that most cases are resolved amicably. He added that in SA the reasons might be because the client can stop the project if a case goes to court and terminate a contract if he wishes, both powerful incentives to avoid an adversarial dispute resolution approach.

P15: Most cases are resolved amicably, as the parties are concerned that, if they go to the courts, the project will get delayed. Some cases take months to be resolved in the courts. In most cases, the projects are stopped until the disputes are resolved, and this is why parties try the amicable way first. In the public sector, clients have the power and authority to control the dispute and can terminate the contract. They may even hand the project to another contractor to complete. (Interview 15)

Consultant - With low or non-disclosed levels of experience

For P3 and P2, the last and least experienced consultants, they both explained the internal organisational process that tries to facilitate the amicable method of dispute resolution. Something like a mini-trial, using senior non-project related staff, who try to broker a resolution to the dispute, before considering other methods.

P3: That is one of the company policies, to come up with friendly resolutions to disputes, before any further process like litigation. The first approach is for the contractor to submit the case to the Project Management Team (PMT), who reviews the case and respond to it. They write the comment, and they ask for some

clarification, this is the first step. PMT tries to resolve it amicably if not they will escalate it to claim department and claim panel. (Interview 03)

P2: In terms of disputes, we have a process in Aramco we go through. Like I said, the change orders. We have bids come in, and we look at the bids, then a negotiation strategy. We negotiate with the contractor to come to an arrangement. What happens then is releasing a change order, leading to a claim by the contractor. We will assess if he is entitled to more money or more time. And then, based on if we believe this is a firm, reasonable assessment and price for the work to go ahead and do it. They have to go ahead and do it. They do not like it; later on, they will put another claim in. That claim will go to our claim department who will make their assessment. Then they will come to an agreement, and sometimes the contractor is entitled to go to arbitration. We have clauses within the contract language which let them do that. So, we follow, and we have to comply with Aramco procedures. It's very structured, and that is why we have got to do it. We try to resolve the claim before it goes to the claim department. Arbitration is usually the last step. Yes, there is a facility in the contract to go to arbitration if needed. For a contract schedule dispute, that is when it goes to arbitration. (Interview 02)

In summary, when asked about the use of amicable methods to resolve disputes on construction projects in SA, interviewees all agreed that to a greater or lesser extent all disputes attempt an amicable settlement in the first instance. In accordance with other published findings; (Alshahrani, 2017), this study has verified that most non-adversarial dispute resolution methods, like conciliation, mediation and adjudication are not formally used in SA. Instead, the legal process, known as Sulh, is the traditional and formal non-adversarial route to an amicable settlement of disputes. However, the use of Sulh is possibly in decline, as arbitration clauses in contract increase. The problems with Sulh were identified as, firstly, it is a formal process that needs to be registered with the court, and its decision is enforceable. Secondly, it is easy to avoid if one party declines to agree to the process. Finally, parties with a strong case are less likely to agree to the approach, as it utilises a "give-and-take" approach, requiring both sides to compromise on the final solution. There is evidence that other non-adversarial (amicable) methods are used, similar to the mini-trial; (Alsheikh, 2011; Malik & Muda, 2015). Where an independent panel of

senior managers, drawn from the disputing parties and independent of the project, try to negotiate a solution. This finding adds essential new knowledge, not found in published literature, about the use of amicable methods to resolve disputes on construction projects in SA.

There was a notable divide between the legal professionals and contract management personnel, about the extent to which amicable methods are used. Although the principle of “Sulh” amicable approach is still applicable (Tarin, 2015). The lawyers were much more likely to consider those amicable methods are not widely used, whereas the managers' view was the opposite. That could reflect the relative position of the two groups, managers seeing every dispute that arises, whereas lawyers only getting involved when amicable methods fail. On a more subtle level, there was some agreement that the choice of whether to pursue amicable or adversarial dispute resolution methods depended on several strategic factors. First was the scale of the dispute, with larger disputes tending to favour amicable methods and smaller ones going straight to arbitration or litigation. This was an unexpected finding in this PhD and seemed quite counter-intuitive. That is because the delay, cost and trust in adversarial routes was often cited as a reason to prefer amicable methods.

However, wider concerns, like the ability of the client in many SA contracts, to stop the work and terminate agreements may explain why, in SA, large contractor-initiated disputes may seek an amicable resolution. In large disputes, fear about the impact of launching arbitration or litigation on their wider commercial success of a business is a strong push towards amicable methods. For smaller disputes with local parties, the impact on the business of pursuing arbitration or litigation in SA may be less significant. This is a finding important and is not widely reported in previous research. As such, it is an important contribution by this PhD to the understanding of the uniqueness of conditions in SA, that determine when adversarial or amicable dispute resolution methods are used.

In relation to the scenario at the start of this chapter, the author can use the lessons from this section to apply some further interpretation of the situation described. What is clear is that the Saudi culture of friendly discussion, derived from the practice of Sulh, defines the atmosphere in the room. However, there is no evidence that Sulh was ever applied formally, and it is possible that, because this dispute was of a relatively small scale, one or other of the parties judged that the risk of going straight to arbitration was worth taking. What is

also evident is the slow way in which the adversarial process proceeds, with the scenario involving the second meeting to hear the dispute and with further meetings required before a settlement would be reached.

4.4.3 (Q3C): When amicable methods fail to resolve disputes on construction projects in Saudi Arabia (SA)

Interviewees were asked what happened when amicable methods failed to resolve disputes and what the parties may proceed to adjudication, litigation or arbitration. The literature revealed that if the amicable way fails then the dispute shall be forwarded to Board of Grievances or to other courts such as the commercial courts (Ansary, 2008).

In your experience, what percentage of disputes that proceed to adjudication, litigation or arbitration s are resolved using arbitration and how do other option compare to arbitration? What role has culture played in the creation of this position?

Arbitrator - With high level of experience

The arbitrator, P17, considered that when amicable methods fail, parties do continue their efforts to find a resolution. Often the first option tried is arbitration, because it is quicker and more private than litigation.

P17: Generally, yes (when amicable methods fail, parties will proceed on to arbitration in order to resolve the dispute), because the arbitration process is quicker and private, especially if the parties are concerned about privacy. Which is different from the court process. (Interview 17)

Lawyers - With high levels of experience

The first lawyer, P6, stressed that follow-on options very much depended on what is written in the contract. He also explained that in SA, 90-95% of times when the parties have not tried arbitration, the court may redirect them down that route.

P6: It depends on what's written in the contract. In the end [if parties have not tried arbitration] the court will redirect them to arbitration because it is a fast process and easier to understand. 90- 95 % of the cases that go, the court will be sent for arbitration. Especially if it is stated in the contract. (Interview 06)

P10 confirmed P6's statement, about the options being determined by what is in the contract, but he added that in recent years arbitration clauses have become less common in SA. The reason for that relates to the ability of the court to overrule an arbitration decision and hear the case again.

P10: It depends on what the contracts say. But, as I said, in the last 2 years the arbitration clause has largely been ignored, because in the general judiciary if the disputants do not go to arbitration, in the first court hearing the case will become invalid. If the claimant asks for arbitration from the beginning, and the respondent refuses, then both of them have to go to the court. Let's take the example where both disputants go to the court, and the claimant says the respondent owes me \$1 Million and we have been to arbitration. The judge will ask the respondent what his answer is, and if the respondent replies "I already paid him", here the arbitration becomes invalid, and it is not allowed for future hearings in the same case. Therefore, in the last 2 years, people don't tend to go to arbitration for this reason. (Interview 10)

P12 added that, in SA, large project contracts use arbitration clauses, but insist that arbitration hearing are held outside of SA. Smaller projects avoid arbitration and go straight to litigation. Partly the reason for the latter is unregulated nature of fees for arbitration hearings, which are negotiated on each case, and considered expensive. This system has created a market for "no win no fee" legal practices, which has pushed up the cost of arbitration.

P12: It depends on the agreement. Megaprojects usually have arbitration, and it is conducted outside SA. Small projects avoid arbitration and go to the court instead, due to the high cost of arbitration. The arbitration fees do not have a standard, and it depends on the negotiation with the arbitrator, unfortunately. Arbitration is costly, especially these days, with the hard economic period in the country. Some disputants sell the case to an Arbitration Investment Company. These companies are marketing their services, especially to those who cannot afford the arbitration fees. If the case is won, they get their profit by taking a percentage of the award amount (amount depends on the agreement and how complex is the case). They study the case and its

risk carefully before charging their clients, and this process is called arbitration financing. I have not noticed if it is. (Interview 12)

P5 considered that arbitration was still better than going to court. That was because it was easier in the arbitration process to appoint technically competent experts to hear the case.

P5: The arbitration process is better than going to court. That is because the judge is not an expert in the technical issues of every case. Especially, cases in construction projects when the disputes are purely technical. In arbitration, I choose the arbitrator I want, and the other party choose his arbitrator, and this is why arbitration is preferable. In practice, it depends on the culture. Most of the big contractors tend to choose arbitration. But unfortunately, most of the arbitration conditions link to processes outside the country. (Interview 05)

As a final note from these experienced lawyers, P14, explained that having an arbitration clause in a contract in SA, ultimately forces parties down that route, as judges will insist that the option is tried before the case is heard in the court.

P14: There are some who refuse any approach apart from the amicable way to resolve their disputes. Sometimes, they make deals with lawyers to reach an amicable agreement with the second party. If they have an arbitration clause in the contract, they will go to arbitration. Otherwise, they go to court. If the arbitration clause is written in the contract, it becomes mandatory, and when one of the parties refuse it, it will be the court's responsibility to assign the arbitrators. (Interview 14)

Lawyers - With moderate levels of experience

For the lawyers with slightly less experience, P11 echoed many on the views expressed by his more experienced colleagues above. He added that the personal advice clients to not include arbitration clauses in their contracts, due to the time it takes and the likelihood of an unsatisfactory outcome. He also stressed that the way arbitration work, opens it up to abuse, as parties try to influence the arbitration panel. That ability to influence the process is not available in the litigation route in SA, where processes are more rigorous and public.

P11: The court is always the primary option, but arbitration sometimes applies if it is stated in the contract, or if the parties decide to take it as an approach to resolve the dispute. The arbitration clause should be included in the contract if the parties wish

to go to the arbitration. The inclusion of an arbitration clause in contract documents started 10 years ago and has not changed much since then. In contrast, I can say that the arbitration condition is less frequently written in contracts lately because arbitration has become a system of procrastination. I personally do not advise my clients to include it in their contracts for 2 reasons: 1. its process is complicated, compared to going to the court, 2. Arbitration needs cooperation from both parties to work smoothly, but in practice, the cooperation is not adequate, and sometimes the case will take 2 years before appointing arbitrators. In addition, arbitration is risky; for several reasons: The parties try to influence the arbitrators they have chosen; the rules and procedures the arbitrator follows are different from the ones used in court. In court, the judge has specified rules, such as an appeal process to the Supreme Court and judicial council. Also, the level of litigation is more guaranteed than in arbitration; Arbitrators are less experienced than judges in terms of understanding the law and its implementation; Arbitration does not have an appeal process, except in the case of arbitration invalidity. In the court, you have the option of an appeal, and this is why arbitration is risky. (Interview 11)

P4, has less knowledge of the SA system but did confirm that a high level of cases continue to explore other methods when amicable methods fail.

P4: A lot (of disputes proceed to adjudication, arbitration or litigation). Maybe that is because of my role is in a dispute resolution team, so disputes come to me when they have passed through the friendly stage. (Interview 04)

Lawyers - With low levels of experience

With his own extensive international experience, P18, tried to encourage his clients to find an amicable settlement, because the SA systems using arbitration and litigation take a very long time to complete.

P18: Locally, I do not know. I have been doing this job for 30 years. I personally try to avoid getting into litigation or arbitration, because it will be challenging to resolve, and it will take a very long time. I just apply this philosophy here in Saudi Arabia. So I see disputes in contract management, and if you look at it from a legal perspective, it

is not 100% clear if a case will win. I try to explain that to my company and encourage them to be flexible in these situations. (Interview 18)

Managers - With moderate levels of experience

The first construction manager, P8, raised the distinction between approaches adopted on public sector contracts and those in the private sector. He suggested that private sector contracts are more likely to use the arbitration and litigation processes, but that public sector contracts in SA have the option to be referred to a “Board of Grievances”.

P8: First, the parties will start by raising a complaint as per the procedure in the contract. If the dispute is with a governmental sector contract, the contractor will approach the Board of Grievances. If the dispute is with a private sector contract, the parties will go to arbitration or to commercial courts. (Interview 08)

Managers - With low levels of experience

With slightly less experience, P7, stressed that much effort is expended to settle amicably because further progressing the dispute risks undermining the relationship between the parties.

P7: All parties try to stick to resolve their disputes amicably, as I explained. The party who is in the weak position (contractor or subcontractor) is fighting to get his rights in a friendly way because he knows if things get escalated to the court, there is no way back to the friendly approach. Therefore, the case will take time, and the party who is in a strong position (client most likely) will win the case. Anyways, if the amicable approach fails, the parties go to the court first. (Interview 07)

P13 also raised the distinction of a public/private split in the approach adopted when pursuing a resolution to a dispute.

P13: In the public sector, the legal side (going to court) is the main option, while in the private sector, it depends on what is written in the contract (Interview 13)

P9, like P7, stressed that much effort is put into getting an amicable settlement. That approach being part of the culture in SA. However, he also considered that a problem with the other methods is that the SA arbitration and litigation systems were not “mature” enough to deal with construction disputes.

P9: If the disputes are related to the construction industry, I am seeing that 90% of people wish to achieve an amicable solution instead of going to arbitration or to the court. The culture in SA is more into a mutual agreement. They are not into adversarial approaches, because of the regulations, as I said in the beginning. They still feel the regulations and disputes judgements are not mature enough. The arbitration process and even the litigation system is also not mature enough, in my opinion. It depends on what is written in the contract document, as a lot of contract documents include the arbitration clause. I rarely find a contract that doesn't have this clause. If the arbitration fails or it is not written in the contract, they will go to the court... (Interview 09)

From an international perspective, P16, considered that is going to arbitration or litigation, all parties lose to some extent. Interestingly, he suggested that ignorance of the legal process may have the advantage the parties will fear it, thus focus on getting an amicable settlement.

P16: It depends on the contract. Old contracts included arbitration clauses; then they go to court. Even if I wanted mediation, we do not have that here in the SA construction market. That is why parties here know that if they go to arbitration or court, they will all lose, in one way or another. The lack of understanding and knowledge is an advantage sometimes. If parties do not know about arbitration or court processes, then they will fear it and consequently resolve disputes amicably. If they go to court, the project will get delayed, and the dispute becomes complicated. (Interview 16)

Consultant - With high levels of experience

The most experienced consultant, P1, expressed a view similar to that of the lawyers, in that the route followed when amicable methods to resolve a dispute fails, depends on what is written in the contract. He considered that arbitration has to gain in usage in SA as the country has moved to align more closely with international practice. However, like the

lawyer P11, he was aware of the mistrust of arbitration in SA, largely due to its ability to be influenced by external factors.

P1: Well, I can speak about the contracts that I deal with. If the contract specifically includes arbitration, then, when negotiation and mediation fails, it will go arbitration. Generally, I think it is gaining popularity in SA & GCC. It is pretty routine internationally, and perhaps that is why SA is following. SA has built a new arbitration centre in Riyadh, and they have one here in Dammam. I think it is useful now, as you know, it is a sensitive topic. I think that its effectiveness is related to who is chosen to be the arbitrator. Yes. People may not trust the arbitrators, because they may belong to one tribe or one family or another, and the cultural differences there would affect the outcome. The arbitrators could be biased, or the claimants and respondents may feel that they are biased, even if they are not. That is purely based on their family names, so that is what I feel. I do not have hard evidence on that; it is just a feeling. I think the court system and the litigation process are very slow. It is the most expensive. Arbitration has a given timeline, that parties need to keep to, and keeps the process moving forward. Typically, it is less expensive in time and money. I think too, it helps preserve the relationship between the parties. (Interview 01)

Consultant - With moderate levels of experience

The academic professor, P15, added one additional insight, which was that some of the larger client organizations had internal departments to help resolve disputes.

P15: People may approach the court in any dispute, but the court may redirect them to the arbitration process. Some organizations, like Saudi Aramco, have proper procedures when a dispute occurs. The contractor should approach the contract department in Saudi Aramco to negotiate the dispute. If the contractor is not happy, he can go to a different approach, which is mainly arbitration, as per the contract. (Interview 15)

Consultant - With low or non-disclosed levels of experience

P3: DID NOT COMMENT. (Interview 03)

P2: DID NOT COMMENT. (Interview 02)

In summary, this section revealed some particular insights about the system for resolving disputes in SA. When the amicable route fails, parties are left with two main options, either arbitration or litigation. The route chosen depends on what is written in the contract, very much in accordance with other published findings on this topic (Chaphalkar & Patil, 2012; Harmon, 2003). However, in SA, if there is an arbitration clause, parties will be forced down that route, even if they choose litigation as their first option. That is because, in SA, if there is an arbitration clause, judges will force parties to arbitration before they hear the case. What is interesting is that parties to large projects insist that arbitration hearings are held outside SA, whereas smaller project may simply exclude the arbitration clause, and go straight to litigation in SA courts. The latter point may reflect a view that SA has been a bit slow to adopt the arbitration process, only doing so recently to align contractual systems better to other international standards. As such, the SA system is judged by some to lack “maturity”. Some interviewees suggested that, arbitration in SA is actually becoming less popular, as the time and cost associated with the process are increasing, but also as the process is increasingly being viewed as less transparent than the litigation process. In SA, there is a fear that some parties attempt to influence the arbitration panel, and that ability is undermining trust in the process. The lawyers were less likely to point out that public and private sector contracts might adopt different strategies, but the construction managers were more likely to make such a distinction. Public sector contracts in SA have an additional option to have the case heard by a “Board of Grievances”. In the private sector, some larger client organisations may have their own in-house dispute resolution departments. Construction managers also emphasised that maximum effort goes into the amicable method of dispute resolution, partly through concern about undermining working relationships, but also due to ignorance and fear of the other, more legalistic, methods.

4.4.4 (Q3D): Disputes on construction projects in Saudi Arabia (SA) involving parties lower down the supply chain

Drawing on lessons learned from published research Jaffar, Tharim & Shuib (2011) and Jin *et al.* (2013), the author expected to find evidence that disputes between the main parties on construction projects either stem from or involve parties lower down the supply chain. To assess the extent to which that happened in SA, interviewees were asked if, in their opinion, “what evidence is there that disputes on construction projects in Saudi Arabia stem

from or involve parties lower down the supply chain and how is this set to change in the future?”.

Arbitrator - With high level of experience

The arbitrator pointed out an essential legal/contractual fact, that unless a client nominates a supplier or sub-contractor, he is unlikely to be directly involved in disputes involving parties lower down the supply chain. In this regard, the practice in SA is comparable with international practice.

P17: The party responsible for the client is the main contractor, subcontracts are not his (the client) responsibility. Unless the client specifies a certain supplier and the supplier deliver materials later than expected. In this case, the main contractor will blame the client, but this rarely happens. (Interview 17)

Lawyers - With high levels of experience

Lawyer P6, confirmed Arbitrator P17's comment but explained how the client's actions could lead to disputes in the supply chain. Especially when main contractors use a “pay when paid” clause in their subcontract agreements. As such, any delay in a client payment is passed onto sub-contractors, which lay result in a dispute between the contractor and sub-contractor.

P6: 90% of the international contractors delegate their work in SA to the local subcontractor. In the main contracts, between the client and the contractor, it states clearly that the contractor is responsible for any agreement with subcontractors. For example, if the subcontractor is responsible for delivering some materials, and he asked to be paid, the main contractor will say wait until I get paid from the client. Some subcontractors understand the situation, but most of them do not, and then the disputes arise. As I said in the beginning, imperfect contract document leads to this situation. (Interview 06)

P10 was sympathetic to the position of the sub-contractor, suggesting that he endures many disputes because his strategic importance to the main contractor is low.

P10: The subcontractor, in my opinion, endorse a high percentage of disputes. That is because the relationship between the main contractor and the subcontractor is not

as strategically significant as the relationship between the client and the main contractor. The main contractor considers first his relationship with his client. On the other hand, the subcontractor is often not experienced enough and has less power. Therefore, a lot of disputes happen between him and the main contractor. (Interview 10)

P12, echoed the view of P6, that a great deal of work on construction projects in SA is sub-contracted. However, P12 added that the level of supervision for sub-contracts is inadequate and that may be the reason why so many disputes involving the supply chain happen.

P12: The main reason for disputes, in my opinion, is the subcontractor. Because the main contractor delegates the works entirely or partially to subcontractors. Then there is no proper supervision of them, and the main contractor finds himself in big trouble, as disputes arise with both sides; the client and subcontractor... (Interview 12)

P5 reinforced the views expressed above relating to the high level of sub-contracting and the high level of disputes that involve parties in the supply chain on construction projects in SA. He also explained how the client is drawn into those disputes via the main contractor, who is ultimately responsible for the work undertaken by the sub-contractors.

P5: Definitely (many disputes involve the supply chain). Most main contractors delegate the work to subcontractors, who make mistakes and disputes arise. But the client will blame the main contractor, due to the contractual agreement between them. (Interview 05)

A final note from lawyer P14, added that disputes in the supply chain could impact other areas of a project, so must be taken seriously.

P14: It [the supply chain] is affected significantly, sometimes the material supply is delayed, which is the spark of the disputes. (Interview 14)

Lawyers - With moderate levels of experience

Lawyer P11 added an interesting observation, that disputes involving parties in the supply chain are more frequent than disputes between the main contractor and the client. Reasons

for the disputes in the supply chain are similar to reasons for disputes between the main parties.

P11: It is a noticeable proportion. Disputes between the main contractor and a sub-contractor are more frequent than disputes between the main contractor and the client. The main contractor assigns a job to the subcontractor with the lowest price, which leads to low-profit margins and then disputes arise. Delays in payment from the client make the relationship between the main contractor and subcontractor worse, as the main contractor depends on that payment to pay the subcontractor. The responsibility of doing the work on the project is on most likely to be on the subcontractor's shoulder. (Interview 11)

P4: Did not comment. (Interview 04)

P18: Did not comment. (Interview 18)

Managers - With moderate levels of experience

The first construction manager, P8 raised important practical detail about contracts. Sometimes the main parties (client and main contractor) sign an agreement using one form of contract, but lower down the supply chain; the main contractor may use a different form of contract for his suppliers and sub-contractors. That break in the type of form used can lead to disputes. Another problem is when the client refuses to approve a supplier or sub-contractor that the main contractor has used as a basis for his tender bid. When this happens, disputes can arise.

P8: The contractor sometimes is not fully aware of the job nature and scope. For example, the contract starts with the governmental sector form, then the activity [in the supply chain] changes as the contractor make a sub-contract with the private sector form. They are totally different cultures, and the contracts in this situation cannot deal with this change, and disputes arise. Another example, the contractor includes material supplied by subcontractor X in his proposal, then the client awards the contract. However, at the time of execution, the client refuses to accept subcontractor X until he has been reviewed by the technical department within the client organisation. Here is the start of a dispute and the subcontractor is partially

*involved. Time delays happen as well as change orders from the contractor side.
(Interview 08)*

Managers - With low levels of experience

P7, considered that many disputes involving parties in the supply chain are initiated by the sub-contractor.

P7: Most of the disputes start from the subcontractor's side because most of them are not qualified to perform the job. (Interview 07)

Reflecting P8's point about client approval of suppliers and sub-contractors, P13 explained that in public sector contracts in SA, the main contractor is not allowed to make deals with subcontractors without the client's permission. This adds much risk into the project for the main contractor.

P13: It's hard to answer because, in public sector contracts, the main contractor is not allowed to make deals with subcontractors without the client's permission. The project is assigned mainly to the contractor, but in practice, the contractor has dealt with subcontractors, which the client does not stop, as he wants the project to finish. The contractor does not obey some of the contract rules, especially when making deals with subcontractors and choosing his workforce (Interview 13)

P9 considered that disputes often arise on construction projects and at all levels up and down the supply chain. The one point about that is that the main contractor is often one of the parties involved in most of the disputes.

P9: Well, the dispute is part of the construction process, so any stakeholder can be the source of a dispute, whether it is between the client and the contractor or the contractor and the subcontractor. The dispute happens between the parties who have a contractual relationship. I think it all depends on the role and the scope of the work of the subcontractor, but the majority of disputes involve the main contractor (Interview 09)

P16's views were very similar to the Arbitrator P17. They are emphasising that the client rarely gets involved in disputes with parties lower down the supply chain.

P16: Not really, because most clients do not deal with subcontractors. I would say this factor is almost negligible unless the client nominates a specific subcontractor, who then fails. Then the main contractor will blame the client, and the dispute happens. (Interview 16)

Consultant - With high levels of experience

P1 pointed out how the main contractor can sometimes be drawn into a dispute with the client to address a problem arising from a party lower down the supply chain. In other words, a chain of disputes is created, all linked to a common issue, but involving parties that do not have a direct contractual link.

P1: I think it is pretty routine that subcontractor files a claim against the prime contractor, and the prime contractor does not pass it to the owner. Some subcontractors want to file against the owner, but he does not have a contract with the owner, so he files the claim against the prime contractor and the prime contractor will indeed in-turn file a claim against the owner. So, we call that a pass-through. I think that happens. What usually happens is the prime contractor feels harmed as well, and he will add his part of the claim. How often does that happen? I do not know percentage-wise, but I would say probably 30% of the time, somewhere around that. As a prime contractor, I am holding responsibility for subcontractor's actions. I know it occurs for sure, but I do not have reliable information on that (Interview 01)

Consultant - With moderate levels of experience

The academic professor P15, also emphasised the break-in contractual responsibility between the client and parties lower down the supply chain.

P15: It is the contractor's responsibility to manage the subcontractors. The client only deals with the main contractor. Disputes from subcontractors are not so significant when compared to the level of disputes between the client and the main contractor. (Interview 15)

Consultant - With low or non-disclosed levels of experience

P3: DID NOT COMMENT. (Interview 03)

P2: DID NOT COMMENT. (Interview 02)

In summary, the interviewees described contractual practices on construction projects in SA that reflect practices commonly undertaken in other countries. As such many of the issues raised were not unique to SA as the literature revealed (Jaffar et al., 2011; Jin et al., 2013). The practice whereby main contractors sub-contract large proportions of the works to sub-contractors is internationally common and is reflected in practice described by interviewees in relation to SA. Interviewees also confirmed that the problems encountered in other countries relating to causes of disputes involving parties in the supply chain in SA are also commonly found in international research (Jin et al., 2013). One finding that may be more significant in SA than in many other countries is the power that public clients in SA have to reject suppliers and sub-contractors proposed by the main contractor. That is a significant risk for the main contractor, mainly if suppliers and sub-contractors that the main contractor used to prepare his tender bid are rejected by the client. Another finding is that the range of contract forms available in SA is limited, and this creates a potential problem for construction projects with large supply chains. The limited suites of contract forms with a common basis lead to a variety of contract forms being used for the main parties and parties lower down the supply chain. The break-in contractual forms can add complications to efforts to resolve disputes, as clauses and conditions may be very different in each agreement.

4.5 Summary of main finding and contribution to knowledge about disputes in the Saudi Arabian construction industry

This chapter started with evidence collected by the author during his observation of an arbitration hearing. That scenario involved a dispute between a contractor and a client. The client had cancelled the contract early, and the contractor was seeking payment for works undertaken before the contract was terminated. As the analysis in the chapter progressed, the scenario was used to highlight findings and explain new knowledge derived from this research.

Data from the JCCI revealed that overall, in 69% of arbitration cases, the claimant was the Payor. This small set of results was judged to be significant, as there was no evidence in the published literature of research that had been able to quantify the extent to which disputes were split between the main parties. In addition, this research was able to quantify that Time delay was the most frequent cause of disputes (38.5% of cases) and that changes in scope and delays in payment were the next most frequent causes of disputes (23.1% in each case). Here again, the unique contribution of this research to current knowledge is not the identification of new causes of disputes, but the quantification of each cause in relation to the overall number of cases. Finally, the JCCI data revealed that after the arbitration process, as many as 90-95% of all arbitration rulings are appealed. Here again, the data contribution does not contradict the prior research, but what is new is the finding that 90-95% of cases going to arbitration are appealed, as this level of appeals was not previously reported.

Further insights were gained from the questionnaire survey. The first insight was that in Saudi Arabia, an industry practitioner would need to have 10-14 years of industry experience, and also 6-8 years of dispute resolution experience before becoming sufficiently well versed in the dispute resolution process to engage with the DBR. An additional inference was that with little or no experience, the industry practitioner's natural inclination is that disputes will be resolved amicably. However, as greater experience is gained, so that early (perhaps naïve) optimism is diminished. That said, some answers from even the most experienced respondents included those who agreed that disputes in Saudi Arabia are resolved in a friendly manner. That is a positive finding from this research about the Saudi Arabia dispute resolution process. Perhaps the main finding from the survey data was that, in rank order, the most common cause factors leading to disputes in Saudi Arabia are:

1. Time overrun
2. Lowest tender
3. Client change to the scope
4. Contractor led change
5. Late payment

The final insights and learning about disputes in the construction industry of Saudi Arabia was derived from the face to face interviews. Interviewees described contractual practices

on construction projects in Saudi Arabia as similar to that of other countries. As such many of the issues raised were not unique to Saudi Arabia. One finding that may be more significant in Saudi Arabia than in many other countries is the power that public clients in the country have to reject suppliers and sub-contractors proposed by the main contractor. That is a significant risk for the main contractor, especially if suppliers and sub-contractors that the main contractor used to prepare his tender bid are rejected by the client. Another finding is that the range of contract forms available in Saudi Arabia is limited, and this creates a potential problem for construction projects with large supply chains. The limited range of contract forms available is a problem for contracts lower down the supply chain. The break-in contractual form chain along the supply chain can add complications to efforts to resolve disputes, as clauses and conditions may be very different in each agreement.

Chapter 5 - Results and discussion the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia

Scenario 2

Shortly after attending my first arbitration hearing, I was invited to attend a second arbitration hearing on 21st March 2018. At this hearing the format is now familiar to me, the arbitration tribunal sits together in front of the two disputing parties. Perhaps on this occasion, the atmosphere is a bit less relaxed, as I have a sense that these parties are not as amicable as the two parties in the previous case. In this case, one party is a subcontractor, and the other is the main contractor. The dispute is focussed on the main contractor's threat to cash two guaranteed cheques provided by the sub-contractor. One cheque was provided to serve as a guarantee for the quality of the sub-contractor's work and is valued at 30 million SAR (about £6 million). The other cheque, valued at 10 million SAR (about £2 million) was to ensure the subcontractor remained committed to complete the contract. The subcontractor is seeking a decision to stop the main contractor cashing both cheques, and he is also asking the tribunal to instruct the contractor to stop sending him letters instructing him to complete the works using his own money. In response, the main contractor declares that the subcontractor has accrued financial liabilities which exceeds the value of both cheques and therefore he is sending the letters to the subcontractor to make him aware that there are no more funds in the contract to pay him. After hearing the arguments, the arbitration tribunal instructed the main contractor not to cash the cheques until they have had time to review all documents relating to the case thoroughly. They commit to completing that process and issuing their final decision, very soon. Finally, the minutes of the meeting are printed and signed by everyone present.

As with Chapter 4, the above scenario was observed by the author as part of the data collection exercise for this thesis. It will be used to help to illustrate new understanding, generated by this PhD, about the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia. In the spirit, the grounded-theory approach adopted

for this PhD study, the analysis and discussion start with a review of the author's personal experience of working in the construction industry of Saudi Arabia. Then the analysis reviews lessons learned from participation in conferences early in the research programme before turning to the assessment of data gathered from a structured survey and detailed interviews, undertaken by the author in Saudi Arabia.

5.1 Introduction

Arbitration is one method of resolving disputes in the construction industry. This chapter investigates how effective arbitration is in resolving these disputes in the Saudi Arabian construction industry. The author started the chapter with the hypothesis that needs verification. The research activity the author did as part of the grounded theory approach developed the understanding of the importance of arbitration in resolving disputes. The author studied and analysed the effectiveness of arbitration itself and the arbitration law in Saudi Arabia and presented the new arbitration law's main changes in 2012. The analysis of the findings were results of data gathered from JCCI, online survey and interviews. The chapter concluded by summarising the findings and what thesis contributed to the arbitration area in Saudi Arabia.

5.2 Chamber of Commerce data on disputes and arbitration as an approach to resolve them

The author started the data collection by approaching the Jeddah Chamber of Commerce and Industry (JCCI). The author interviewed the deputy head of the arbitration department. It took considerable time to get approval for the interview, and when it eventually did take place only data for cases in 2016 and 2017 was made available. That data did reveal some beneficial information, and Chapter 4 included a detailed analysis of the case data provided by the JCCI.

For this chapter, the author will focus more on qualitative data provided by the deputy head of arbitration. He stated that the majority of the arbitration in Saudi Arabia is ad-hoc arbitration and the JCCI arbitration centre is one of just a few institutional arbitration centres in the country. The JCCI meetings are similar to the ones in the ad-hoc process, but the way cases are referred to the arbitration centre is different from the ad-hoc process.

Later in this chapter, evidence from interview participants verifies that the institutional arbitration centre approach has advantages when compared to the ad-hoc process. The JCCI confirmed that in some cases, the parties do try to resolve the disputes amicably before contacting JCCI. As revealed in Chapter 4, the average length of time to complete an arbitration case via the JCCI was 7.5 months, and the losing party has the right to appeal, a facility that 90-95% of parties took advantage of. The JCCI judged that the average length of the arbitration process from the first meeting until the award is evidence of a good level of efficiency in terms of the speed process.

There was no hint given at this stage if the high level of appeals was considered a positive or negative aspect of the arbitration process. However, the author could easily speculate that the high level of appeals could be a problem for this research, undermining any proposal that aimed to increase levels of awareness and use of arbitration in Saudi Arabia. One fact that consoled the author was that the data set was very small, and the wider picture could well be different.

Reflecting quickly on how the findings aided understanding of the scenario at the start of the chapter. The author now realised that the parties should not expect a quick result from the arbitration process and should expect the process to take many months. In addition, it was highly probable that one of the parties would appeal the arbitration decision, and the case would go to litigation.

5.3 A quantitative survey to reveal details about the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia

The next stage in the grounded theory-based methodology was to further investigate insights gained from the JCCI, by analysing results from the larger questionnaire survey. The first question that specifically addressed arbitration was Question 8a. Question 8a asked respondents to assess their level of awareness of the arbitration process, within a range between 1 (low) to 5 (high). Interestingly, no respondent scored their level of awareness at 5. All subgroups differed from each other, with the lowest overall scores provided by the control group, which had no experience of dispute resolution. The mean score for those with experience was very similar, at approximately 2.5, and the median result for both groups was the same, 2.0. The group with a formal role in dispute resolution were more

likely to include individuals with lower levels of awareness than those with no formal role. All four members of the group with experience of the DRB replied to this question, and they all scored their level of awareness at 3.0. This finding is interesting and relates well to the author's own experience, that despite many years of engagement in the construction disputes, development of a deep understanding of the Arbitration process in SA is difficult to develop.

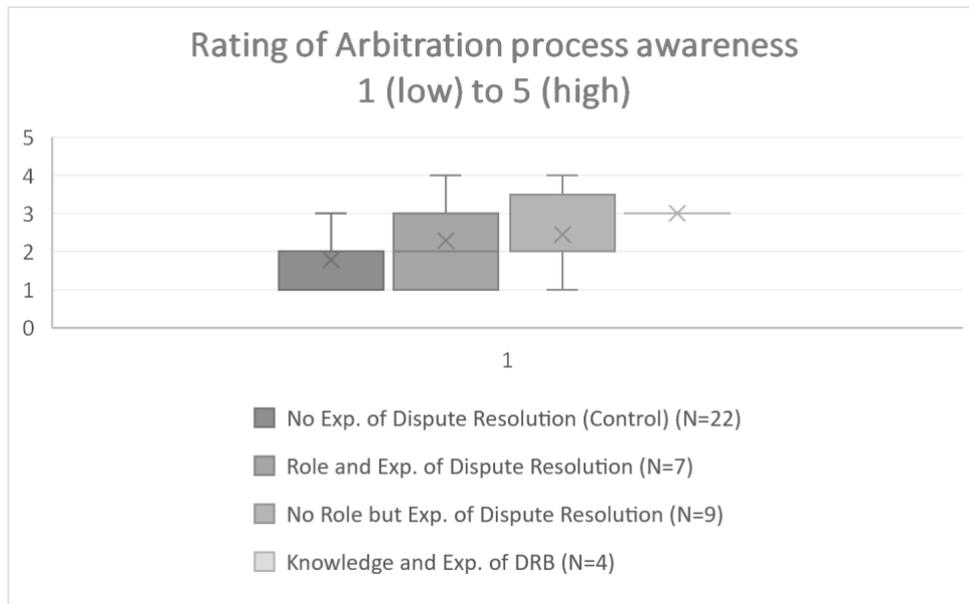


Figure 5. 1 Analysis of survey question 8 showing levels of awareness of the Arbitration process used in Saudi Arabia
 Question 18 presented six statements relating to arbitration and asked respondents to provide a score between 1 and 10 to indicate how strongly they agreed or disagreed with each statement (where 1= low level of agreement and 10= high level of agreement). The six statements were:

1. I know how the arbitration process in Saudi Arabia works
2. The final award from the arbitration process is satisfactory
3. The arbitration process works smoothly
4. Cooperation between disputants involved in the arbitration is good
5. The arbitration process is transparent

6. Communication between parties in the arbitration process is effective

Table 5.1 below shows the number of responses and frequency for each score value that each statement received. The table shows that of the 51 potential responses, 14 respondents did not answer this question. The table also reveals that the opinions of the respondents were quite varied, as no single statement achieve a consistent score.

Table 5. 1 Survey score Q18 statements about arbitrations

	Q18a	Q18b	Q18c	Q18d	Q18e	Q18f
Response Score	Respondent knows how arbitration works	Arbitration outcome is satisfactory	Arbitration process works smoothly	Cooperation in arbitration is good	Arbitration process is transparent	Communication during arbitration is effective
DN	14	14	14	14	14	14
1	7	1	4	3	4	1
2	4	4	3	3	1	4
3	8	3	4	2	1	0
4	2	0	4	3	4	1
5	6	16	13	10	10	16
6	1	1	0	5	5	7
7	1	4	5	3	2	5
8	6	4	1	4	3	0
9	0	3	3	1	7	2
10	2	1	0	3	0	1
N	51	51	51	51	51	51

Figure 5.2 provides an alternative view of the scores for each statement as a percentage of all the responses received. The figure helps to illustrate the finding that opinions in relation to the six statements about arbitration were quite varied and often the most frequent score was a neutral score of 5. Perhaps the only statement where respondents were more likely to

give a decisive opinion was in relation to the statement “I know how the arbitration process in Saudi Arabia works”. But again, the actual scores provided in relation to this statement covered a very wide range.

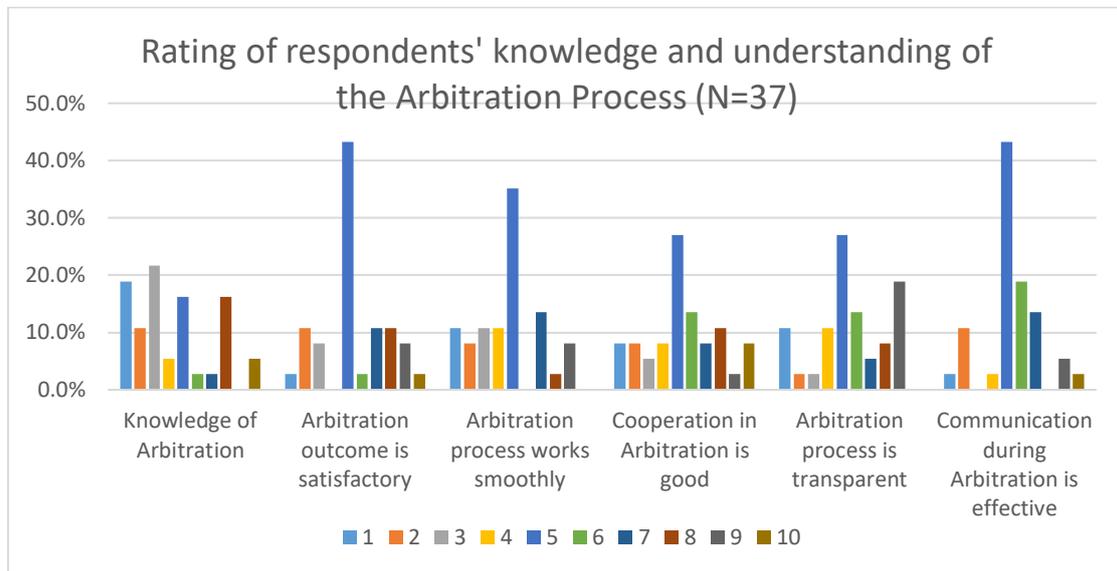


Figure 5. 2 Survey score for Q18 statements about arbitrations as % of total responses

To gain a better understanding of the relative ranking of each statement, the average score was calculated. Figure 5.3 shows the average score for each statement, ordered from the highest rank to the lowest rank (left to right). What this analysis reveals is that there may be considered to be four strong points about arbitration in SA and two weaker points. The four-strong points about arbitration in SA are (in rank order):

1. The arbitration process is transparent
2. The final award from the arbitration process is satisfactory
3. Cooperation between disputants involved in the arbitration is good
4. Communication between parties in the arbitration process is effective

The two areas where the arbitration process is less strong are (in rank order):

1. The arbitration process works smoothly
2. I know how the arbitration process in Saudi Arabia works

This result is an important finding from this research and useful contribution to the knowledge about the arbitration process in Saudi Arabia. The strengths and weaknesses

revealed to provide a useful base from which to develop more detailed proposals about how to improve the system in Saudi Arabia.

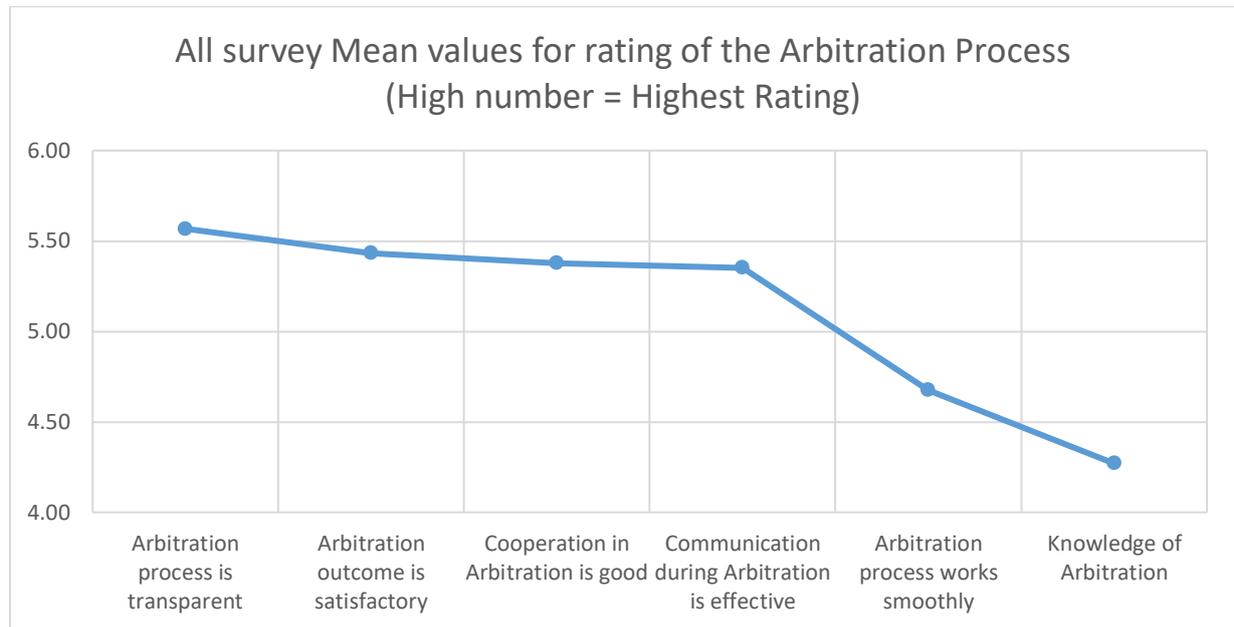


Figure 5. 3 Mean survey scores for each Q18 statements about arbitrations

To gain some further insight into how different groups responded to the Q18 statements, the author plotted the mean scores from each of the four sub-groups against the overall survey mean (Figure 5.4). This analysis revealed one major point of divergence between the sub-groups in relation to the lowest-ranked point (I know how the arbitration process in Saudi Arabia works). For this statement, the two smaller groups, with knowledge of the DRB and the group with experience and a formal role in dispute resolution scored this statement most highly. However, the two larger groups with experience but no role in dispute resolution and those with no experience of dispute resolution ranked this statement the lowest. The lowest-ranked statement for the group with experience of the DRB was “Communication between parties in the arbitration process is effective”. For those with experience and a role in dispute resolution, the lowest-ranked statement was “The arbitration process works smoothly”. The highest-ranked statement for those with experience but not role in dispute resolution was “The arbitration process is transparent”. For those with no experience of dispute resolution, the top-ranked statement was “Cooperation between disputants involved in the arbitration is good”. So, no clear picture emerged from this more in-depth investigation that might shed light on how the level of experience changed people’s views of the arbitration process. Perhaps the only clear

message was that engaging formally in the dispute resolution process helped respondents gain a better knowledge of the arbitration process.

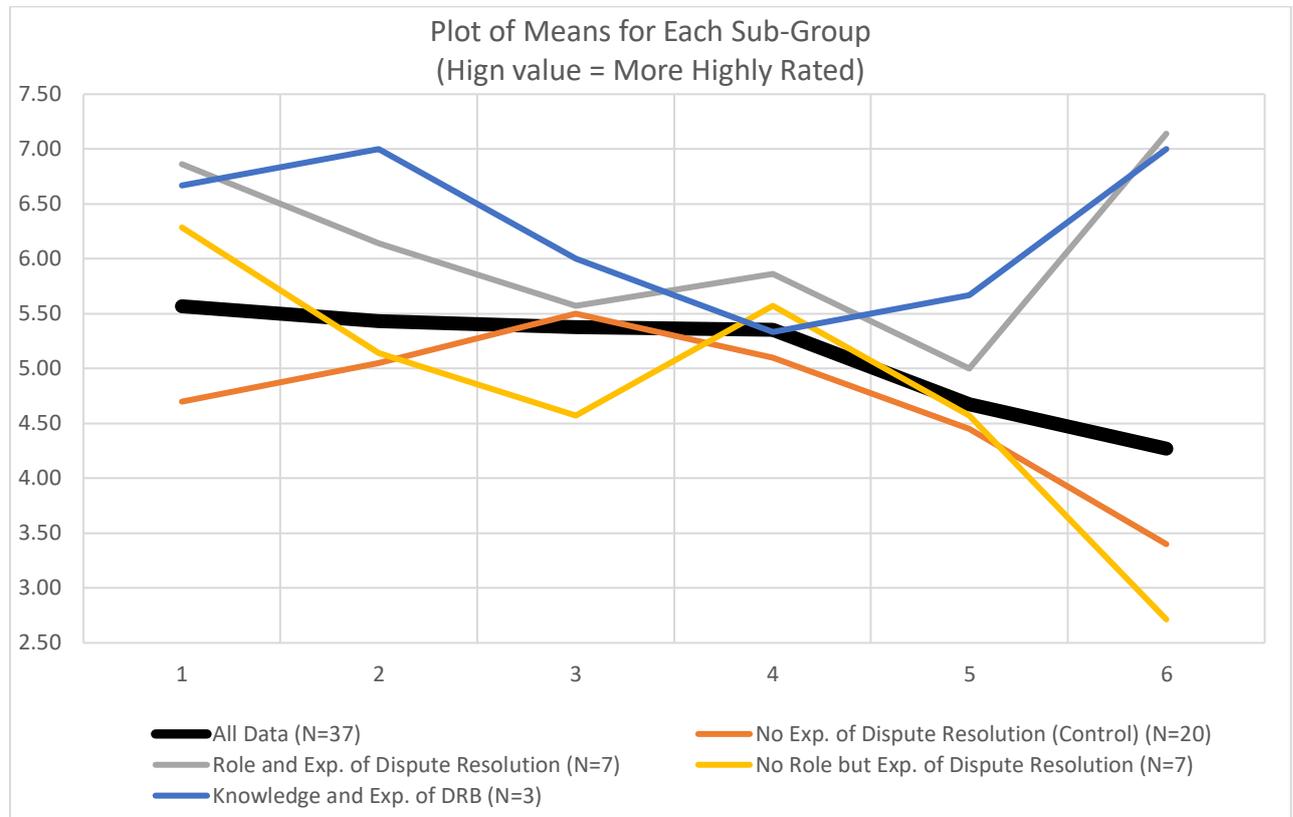


Figure 5. 4 Mean scores for Q18 statements by each survey sub-group

Q19 of the survey asked respondents to provide an indication about how frequently arbitration clauses are written into construction contracts in Saudi Arabia. A score of 1 = always, a score of 5 = never, and Figure 5.5 shows the results for the different subgroups. On first impressions, the results for Q19 seemed quite diverse, but on closer inspection the mean and median scores for all sub-groups were found to be quite similar and quite neutral, ranging between 2 to 3. The group with the broadest range of responses was the control group, those with no experience of dispute resolution. The most consistent set of responses was from the smallest group, those with experience of the DRB. Those with a formal role in dispute resolution were more likely to consider the arbitration clauses were used more frequently than the other three groups. So here again, the survey did not provide a clear and distinct finding, other than confirming that arbitration clauses are “sometimes” written into construction contracts in SA.

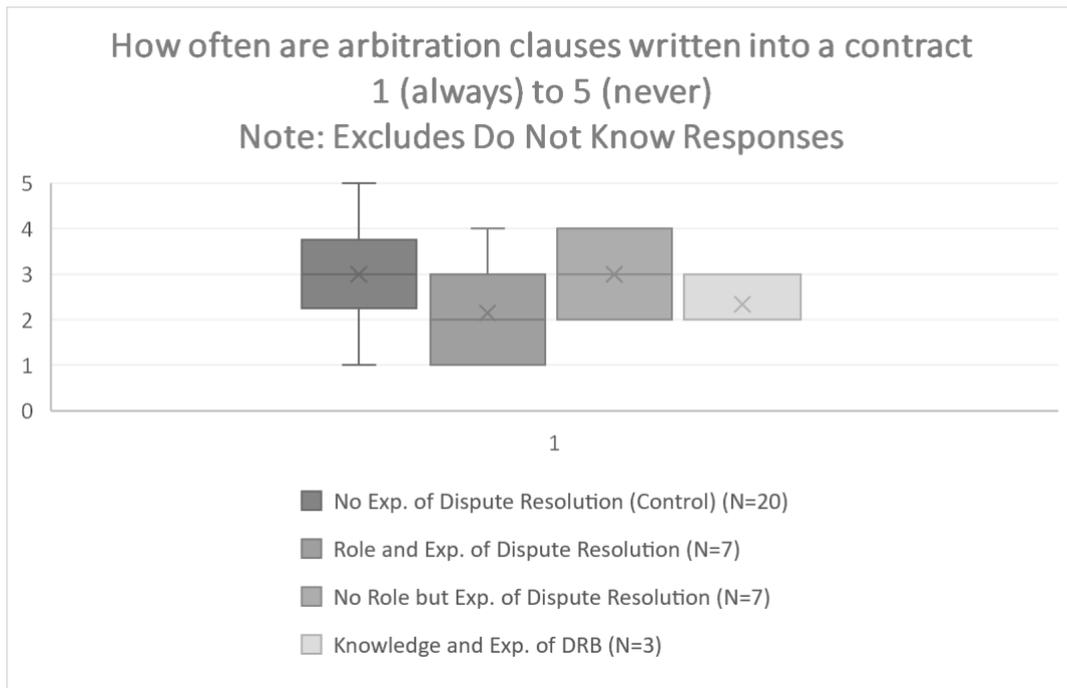


Figure 5. 5 Scores for Q19 showing how frequently arbitration clauses are written into construction contracts in SA Q20 of the survey returned to the themes of Q8 and asked respondents a slightly more general question about understanding of the arbitration process in Saudi Arabia. Specifically, respondents were asked to provide an opinion about how clear and well understood is the Arbitration process in the country (1 = clear to 5 =not clear). As with Q19, the first impression is that the results in Figure 5.6 seemed quite diverse, but on closer inspection, the mean and median scores for all sub-groups were found to quite similar and a little bit pessimistic, ranging just above or just below 3. The control group provided the most unexpected results, with most respondents providing the same score value, 3. The most diverse set of scores came from the group with experience and a formal role in the dispute resolution process, and they were most likely to consider the process as being “not clear”. Here again, the survey did not provide a clear and distinct finding, other than confirming that the arbitration process in Saudi Arabia is generally not very well understood.

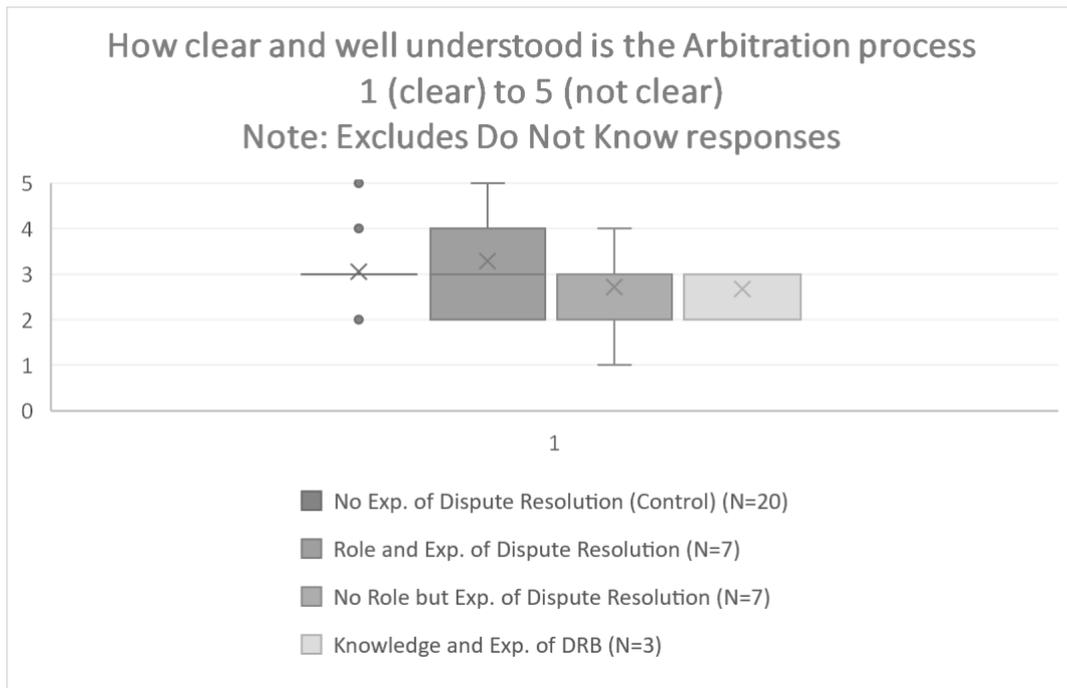


Figure 5. 6 Scores for Q20 about how clear and well understood is the Arbitration process in SA

The final question in the survey that dealt with the arbitration process, Q21, asked the respondent if the changes to the Arbitration Law in Saudi Arabia had improved practice. The score range was 1 (highly improved) to 5 (significantly worsened), and figure 5.7 shows the responses for the different subgroups. For this question, there was a bit more diversity in the responses, although the mean and median scores were still quite narrowly spread, ranging from 1.5 to 2.5. The results suggest a small tendency towards an optimistic opinion that changes to the arbitration law have had a positive impact on practice in SA. However, the most experienced subgroup, those that have engaged with the DRB were the most pessimistic. The most optimistic were the next most experienced group, those with a formal role in the dispute resolution process. Those with no experience and experience but not a formal role in dispute resolution showed a similar spread of responses. However, overall the experienced group was more optimistic than the less experienced control group. As with previous questions the highly divided set of responses did not reveal any clear pattern, other than the general belief that that changes to the arbitration law have had a small, but positive impact on practice in SA.

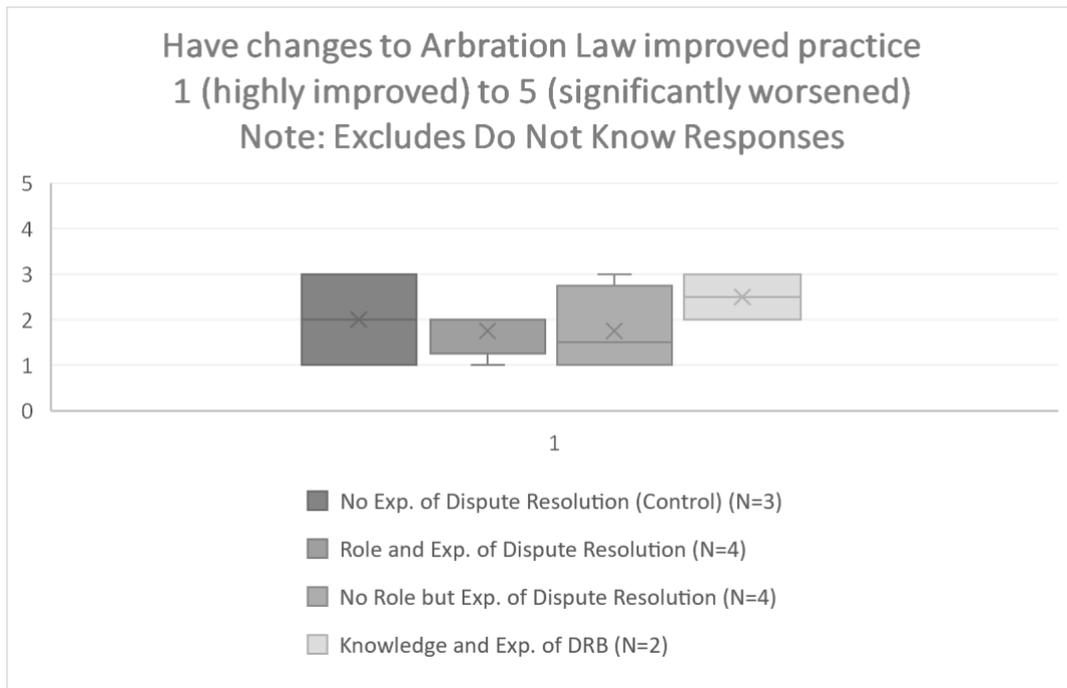


Figure 5. 7 Scores for Q21 asking if changes to Arbitration Law in SA have improved practice

To summarise, the findings from the survey conducted as part of this research has revealed that despite many years of engagement in the construction disputes, development of a deep understanding of the Arbitration process in SA is difficult to develop (Q8a). From Q18, the four strong points about arbitration in SA are (in rank order):

1. The arbitration process is transparent
2. The final award from the arbitration process is satisfactory
3. Cooperation between disputants involved in the arbitration is good
4. Communication between parties in the arbitration process is effective

The two areas where the arbitration process is less strong are (in rank order):

1. The arbitration process works smoothly
2. I know how the arbitration process in Saudi Arabia works

Engaging formally in the dispute resolution process does seem to help in gaining a better knowledge of the arbitration process. However, that engagement may itself have limited scope, as other parts of this survey seemed to show that arbitration clauses are only “sometimes” written into construction contracts in Saudi Arabia (Q19). As a consequence, the survey confirmed that the arbitration process in the country is not very well understood

(Q20). Finally, Q21 of the survey revealed a general belief that that changes to the arbitration law have had a small, but positive impact on practice in SA.

In relation to the scenario presented at the start of this chapter, this research would suggest that the disputing parties were lucky to have an arbitration clause in their contract, as these are only “sometimes” included. Besides, the recent amendments to the arbitration law in Saudi Arabia will have improved the process experienced by the disputing parties. The parties should find the process more transparent and satisfactory overall. It is likely that the parties will cooperate with the process and that communication throughout the process would be effective. That said, the process might not always perform smoothly, and the disputing parties will probably not understand precisely how the process works. In relation to the last point, if either of the parties does not just rely on people with experience of dispute resolution, but instead employs people with a formal role in resolving disputes, then they are more likely to understand the process.

5.4 Detailed interviews to deepen understanding of the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia

The 18 interviews conducted for this research included four questions aimed explicitly at deepening understanding of the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia. The questions were included in Section 4 of the interview and were:

Q4A- Disputes that involve adjudication, litigation and/or arbitration are sometimes criticised for being slow to achieve results.

How effective and efficient do you believe the adjudication, litigation and arbitration processes are in resolving disputes on construction projects in Saudi Arabia?

Q4B- Arbitration law in Saudi Arabia was recently amended (in 2012).

What do you think was the main purpose for making the amendments and have the changes been effective in achieving that purpose?

Q4C- Looking specifically at how the Arbitration law is applied on construction projects in Saudi Arabia.

Do you believe that the arbitration law in Saudi Arabia is effectively applied to resolve disputes on construction projects, and how does its use differ for public sector and private sector project disputes?

Q4D- Looking to the future of dispute resolution, using arbitration, on construction projects in Saudi Arabia.

Do you consider that any further changes are needed in relation to the Arbitration law in Saudi Arabia and the arbitration process to make it work more effectively in the future, and why do you hold that view?

As previously described in Chapter 3, this analysis presents the data from interviews using a structure based on the background and experience of the interviewee. The analysis of each question starts with the response provided by the single experienced arbitrator, then the views of lawyers, construction manager and finally, the legal consultants are presented. The views of those with the most experience are presented first and, when helpful in providing an additional understanding of Saudi specific issues, the points made by interviewees with an international background will be highlighted.

5.4.1 (Q4A): Effectiveness of arbitration and litigation

This question addressed issued raised in previous research, which suggested that adjudication, litigation and arbitration are too slow to achieve effective results (Al-Ammari & Timothy Martin, 2014; Nesheiwat & Al-Khasawneh, 2015). So, the author asked interviewees how effective and efficient at resolving disputes in the construction industry are the adjudication, litigation and arbitration processes in SA.

Arbitrator - With high level of experience

The arbitrator P17 focused on two main disadvantages that affect arbitration's efficiency. The first was about the background qualification of the chairman in an arbitration tribunal in SA. He or she has to have a law or Sharia qualification as per the arbitration law in SA. P17 suggested amending this condition, especially if the case is about a much-specialised engineering issue. The second point related to disagreements between the arbitrators. If that happens, they will need to appoint another arbitrator to provide further advice, and that will make the arbitration last longer and be more expensive.

P17: I personally disagree with one of the clauses, which is about the chairman of the arbitration tribunal. He should have a bachelor degree in either Sharia or law. If there is a pure technical case and 2 of the arbitrators have different opinions, then the chairman will intervene. The arbitration law says that if the arbitrators in the arbitration tribunal do not agree, they will choose a fourth arbitrator to give a final decision. In fact, we do not need this extra level of arbitration, and it will make the arbitration time longer, and the cost will increase for sure. In some cases, I am the only engineer on an arbitration committee. This part of the arbitration law is against international arbitration practice, as we are the only country, to my knowledge, which puts this condition on the chairman of the arbitration tribunal. I believe it should return to the disputants to choose the arbitrators for their case. In terms of effectiveness, if the case is purely engineering-based and all the arbitrators are lawyers, they will have to take technical expert advice, as the courts do. Sometimes they do not understand the technical terminology in the report itself, which will affect the arbitration's efficiency.

Lawyers - with high level of experience

P5 stressed that the arbitration process is very efficient, but can be affected by the quality of the arbitrators.

P5: (The arbitration process is...) very efficient, and fast, but the arbitrators should be selected carefully.

P6 considered that some court judges are obstacles to efficient arbitration. That occurs when a judge invalidates a case when looking into details of the process. According to P6, that is not helpful when the judge is less qualified than the arbitrators to make a judgment about details in the case.

P6: The arbitration process is very efficient, but judges in the court are obstacles to arbitration. That is because many lack understanding of arbitration. The new arbitration law disallows appeals, but an award can be considered invalid if the procedures are against the law. The judge should only check the arbitration procedures, not go into case details, but in practice, some of the judges recheck the

case and make the arbitration invalid. These judges have a belief that they know the law better than the arbitrators.

Like P5, P10 stressed that the arbitration process is very efficient, but can be affected by the quality of the arbitrators.

P10: The arbitration process is very effective and can resolve cases correctly, but it suffers from a shortage of competent arbitrators with relevant expertise. In my opinion, I would prefer that we classify cases based on their financial size. For example; if the case exceeds SAR 1 Million, the arbitrator should have relevant expertise or at least experience as an arbitrator in 3 cases before the current case. We are facing the problem that anyone can be the arbitrator, and I have some cases where the arbitrator does not even know the law or the arbitration law in particular.

On the other hand, P11 believed that arbitration is not effective due to some cultural reasons (this will be covered in detail in chapter 6).

P11: No, it is not effective, for the above reasons I mentioned.

P12 also raised cultural issues that have a negative impact on arbitration practice in SA. He explained how the local system of arbitrator selection allows corruption to enter the process and linked that to the reason many very large projects insist on arbitration hearings being held in centres outside SA.

P12: Many clients thought that whenever they choose arbitration, the arbitrator becomes their representative. As lawyers, we explain to clients that the arbitrator is neutral and independent, but this belief is still there. I would say the cost negotiation at the beginning, with the arbitrator, plays a big role in it. The client thinks, "Why should I hire him and pay him if he is not supporting my case and be on my side?" Even the lawyer, who is technically the client's representative, should present an objective opinion on the case. The absence of institutional arbitration has a big impact on arbitration's credibility. There should be a code of conduct for arbitrators to follow because personal relationships might lead to corruption. This is the important role of institutional arbitration (to reduce corruption). Therefore, we recommend, on mega projects, to arbitrate using the Dubai Arbitration Centre, or London, against considering using the Saudi legal system.

P14 shed light on two issues. First, he linked poor effectiveness of arbitration and litigation not to the law, but to the competency of the arbitration tribunal or the judges in the court. Second, was that the efficiency of arbitration is better than litigation. He linked the speed of the arbitration process to the payment system, which incentivises arbitrators to make the process quicker, while in the courts there is no link between the speed of the case and the payment of the judge.

P14: When we talk about arbitration efficiency, we compare it with the normal litigation process in SA. Ultimately, arbitration is enforceable, and when it starts, it should end with an award. But if we compare it with litigation, in terms of the speed of the process, the procedure is efficient and less costly as well. There are some aspects I can compare, and some that are relative and I cannot compare them. The relative aspects: we have negativity in both arbitration and litigation, which has nothing to do with the procedures. In fact, it relates to the people who are performing the arbitration and litigation. This is, as I said, a relative matter because it is related to the person and how competent he is. Sometimes the arbitration tribunal is very qualified, and the process becomes professional. Sometimes it is the opposite, and it the same with litigation. In terms of time, arbitration is quicker due to the flexibility of the time and place of the meetings. If we look at it from the wages angle, the arbitrators do not take their fees up until the arbitrating process finishes, and the final award is determined. This is why they are motivated, to some extent, to finish the case. This practice is applied in some arbitration centres, such as the Gulf Arbitration Centre. But it is not the case in ad-hock arbitration. The arbitration tribunal cooperate with each other to finish their case, while in the court it is a regular routine for the judges to have several cases, so they do not prefer any specific case to finish quickly. In arbitration, so many cases in the construction industry need an expert opinion, and it is practical for the tribunal to assign an expert to deal with it. Whereas in the court, they have a technical department who deals with technical issues and in most cases, they will assign an entering officer to write them a technical report, which takes a long time. If the dispute happened in a place outside a specific court's responsibility, the court will communicate with the court that should deal with the case. This communication generally takes place by post, not by email,

unlike what the arbitrators do in the arbitration process. Just imagine the time wasted by this sort of communication between the courts.

Lawyer - with moderate level of experience

The international lawyer, P4 worked on several arbitration cases in Saudi Arabia. She viewed the efficiency and effectiveness of the arbitration process positively due to its speed and flexibility. She liked the fact that disputants can choose their arbitrators, especially when the case is a technical one.

P4: I have worked on six SA construction dispute cases and one in Qatar. Most of them had ICC [International Chamber of Commerce] arbitration clauses in the contract. We have used one international arbitration centre in Dubai. I think arbitration is very effective because of the structured process. The process goes quickly, and the parties have control of the procedures. If the parties have agreed on something, they can speak to the arbitrators directly. Arbitration is flexible, especially in hearings because sometimes parties are located in the country while arbitrators are in a different country but they can meet via conference call and other communication tools. We are able to pick our arbitrators, and we are not stuck to the judges, which is what happens in the court system. That is especially important if the disputes are coming from construction projects, as we often need people from technical backgrounds to resolve the dispute. I have a current case, which due to the political conflict between SA and Qatar, we have moved to Oman. This is why I like arbitration due to its flexibility.

Lawyer - with low level of experience

P18 stressed that arbitration is effective, especially when amicable methods to resolve disputes fail.

P18: I think yes when we have very stubborn or hard-headed situations. Every project is going to have disputes. 60 or 70 or maybe even 80 disputes, depending on the project size. A lot of these disputes will be resolved by amicable settlement. Some disputes are resolved by negotiation and mediation and some with giving and take. But, still, there are some issues when both sides are stubborn, and in this particular situation, you may have to get someone in as an arbitrator, who is a member of an

arbitration tribunal, to see what his judgment would be. In these situations, I think we have to go to arbitration.

Manager - with moderate level of experience

The first construction manager, P8, believed that the arbitration process in SA is effective. However, the local Saudi arbitration system lacks a good supply of arbitrators with expertise in construction. Therefore, international contractors involved with mega projects prefer to use international arbitration centres, where that expertise is more available.

P8: Arbitration is effective; however, it has slack in its process. The local arbitration process, and especially the arbitrators, do not have a strong technical foundation to study construction problems properly. For example, if we take a megaproject in Riyadh, such as Metro project, or even a big factory construction, the disputants will typically decide to go to an international arbitration centre, as I said. Alternatively, they will appoint a third party to arbitrate on their behalf. This third party works as a law consultant.

Managers - with low level of experience

P7 was quite negative about the practice of arbitration in SA. He thought that the disputants prefer the courts over arbitration, as the arbitration system is still too new for many in the SA construction industry.

P7: The arbitration culture is new to the country; I mean the practice in construction specifically. It does exist but, as I said, people do not trust the arbitration process in resolving the dispute. Most of the cases I have come across, they do not go to arbitration even though it is written in the contract.

The construction manager P13 did not add to this discussion

P13: I have no knowledge in this area

Managers - with unspecified level of experience

P9 stated that arbitration is effective in SA because it follows international practice. He added that if it were ineffective, parties would stop including it in their contracts, which they have not yet done.

P9: I think it (arbitration) is effective, because it is one of the techniques used worldwide. It provides results for the industry; otherwise, it will not be globally known as an effective approach to resolve disputes. We have contracts with local and international contractors and even some with governmental sector parties, most of these contracts include the arbitration clause. If it is not effective, people would have lost faith in arbitration, and therefore, it will not be considered for inclusion as a dispute resolution approach in the contract document.

P16, like P7 was quite negative about the practice of arbitration in SA. He thought that it was ineffective, long and costly, but better than litigation.

P16: Ineffective, very long and very costly; however, it is more effective than court.

Legal consultant - with high level of experience

The international legal consultant P1 was more positive about the effectiveness of binding arbitration than of non-binding arbitration.

P1: I think it is effective, because the decision is final and binding in arbitration. I guess you are talking about binding arbitration; you can have non-binding arbitration, where the two parties agree the arbitration is not legally binding. My response is directed towards the binding, I will say it is very effective and final unless you can prove that one of the arbitrators biased, e.g. you know that he was taking bribes or you know his opinion was tainted or he made a wrong decision that was against the law.

Legal consultant - with moderate level of experience

The academic P15 considered that arbitration was generally efficient but maybe getting less effective, as recently the disputants prefer to go to courts because arbitration is getting slower and more expensive.

P15: I would say that arbitration is a quick approach, quicker than the courts. But lately, the arbitration process has become costly, and disputants are starting to prefer the court, even if it takes a longer time. From my knowledge, the minimum

charge for the case (in arbitration) is 50K SAR (about £10K). Generally, arbitration is effective and avoids stopping the project.

In summary, this question directly addressed issues raised in previous research, which suggested that adjudication, litigation and arbitration are too slow to achieve effective results (Al-Ammari & Timothy Martin, 2014; Nesheiwat & Al-Khasawneh, 2015). In general, the sentiment of the interviewees was that the law itself was ok and that issues affecting the efficiency and effectiveness of the process were down to the people involved in the process. In Saudi Arabia, the problem with the quality of the people led parties involved in mega projects to seek support for the settlement of disputes outside the country. For smaller projects, unfamiliarity with or distrust of the arbitration process led some parties to exclude arbitration clauses from their contracts, going instead straight to litigation. However, parties who were familiar with arbitration rated it as much more effective and efficient than the litigation process.

5.4.2 (Q4B): Purpose of changes to Arbitration Law

With this question, the author wanted to learn what the main reasons were for making the 2012 amendments to the arbitration law in Saudi Arabia. The literature revealed criticism of the first arbitration law in Saudi Arabia (Saleem, 2012). He also wanted to gather opinions about whether or not the changes have been effective.

Arbitrator - With high level of experience

The arbitrator P17 stated that the main purpose of the change was to keep Saudi Arabia up to date with the international practice.

P17: The changes made were mainly to keep us up to date with international arbitration law, as trade between Saudi Arabia and the rest of the world has grown.

Lawyers - with high level of experience

The lawyer P5 mentioned that the main change was to make the arbitration decision binding, as this was not previously the case, so it became part of the litigation process.

P5: There have been a lot of changes (to the Arbitration Law). The main change makes the arbitration award binding and cannot be appealed. Except if a disputant

asks for the process to be invalidated. Previously the arbitration is part of the litigation process, and it was useless.

P6 reflected that same view as P5, stating that the main change in the new law was making the arbitration decision binding.

P6: To make decisions binding, but it still has some missing points.

P10's answer was very comprehensive. He explained, in detail, cultural issues relating to the appointment of arbitrators and the arbitration process that can undermine its effectiveness. Specifically, he outlined how the process can lead to corrupting influences and the undermining of trust in the system. He recommended to let the court or another organisation choose the arbitrators to avoid any undue influence on the arbitrators by the parties who selected them in the first place. He noted that disputants often preferred to go to the courts, where they have a chance to appeal a decision.

P10: In my opinion, arbitration should be used to deal with all disputes, but there is a decline in the use of arbitration to resolve disputes. It all links to the poor arbitration culture in all parties; contractors or arbitrators. The arbitration process is a judicial process, and it is not appropriate for the arbitrators to be in contact with the disputants during the arbitration process. One of the main issues that the contractor or the client assumes is that the arbitrator is his representative to perform his agenda and to defend him in the arbitration tribunal. This type of culture makes people misunderstand the arbitration process and, when some contractors find out that their arbitrators are against them in the case, they believe that the arbitration system is not suitable for them. He believes the arbitrator will support him from the day he appoints him. But in some cases, the disputant will figure out that the arbitrator was against him and this why he will prefer going to the court in the future. The court has an advantage over the arbitration, as all of the judges are appointed independently by the court, not like the arbitration process where any disputant can choose his arbitrator. Here is the big issue, I believe. Indeed, for example, I might assign an arbitrator with SAR 100,000. I would have a deal with him, to pay him SAR 400000 to be on my side. It is corruption. Some arbitrators adopt a role as a lawyer in the case. For example, I was a chairman of the arbitration tribunal, and another member of the panel said he was happy within the final award,

but then sent us a letter explaining that he rejected the final award. I am sure it was written by the contractor, as he believed that there was a big problem in the contract, and the contractor could not win the case by any means. This is a cultural issue. When the arbitrator explains to the disputant his role, he should be clear that he is neutral and independent in the dispute. The disputant will not be convinced and thinks that I (other disputing party) am paying you (the arbitrator) and you eventually turn against me. This is why I have written a recommendation stating that the disputant should not choose his arbitrator, and it should be the specialised court's task to select all the arbitration tribunal. There is another issue with the arbitration process, affecting all disputants, which is the final award. Its issue is that none of the disputants can appeal, but instead the losing side will raise an invalidity request to the court. Therefore, the case will be reviewed only procedurally, and if it is ok, the final award is binding. The judge will not go in details in the case itself. Therefore, the disputants have found that going to court is better than arbitration, due to the ability to appeal. The other party can appeal if the case is heard in court, and the case will be reviewed thoroughly. Nowadays, parties also prefer the court because it is faster than before; it takes almost the same time as if it was resolved via arbitration. Construction cases go to commercial courts and will be heard in two weeks. In conclusion, disputants prefer the courts because they will go in front of 3 independent judges, and they have a chance to appeal. I believe that the arbitration tribunal should be selected by an independent organisation, the Saudi Arbitration Centre, for example, or the court itself, and it should not be left to the disputants to choose. That will strengthen the arbitration process and make it more credible.

P12 agreed with some of the points raised by P10, especially in relation to the point that the disputants could choose the arbitrators without consulting the courts. He also considered that the rule relating to who could sit on the arbitration tribunal needed to be improved.

P12: The new arbitration law has to have clear implementing regulations. One of the changes relates to the appointment of arbitrators by the disputants, without consulting the court, as before. If one of the parties refuses to appoint an arbitrator, the appeal court will do so. Another change is the qualification of the chairman of the tribunal, he should be qualified in law or sharia, and this hinders the arbitration's

efficiency. One of the disadvantages of the new law is that anyone can play the arbitrator role.

P14 agreed with P6 and P5, stating that the main change in the new law was making the arbitration decision binding, which was a significant change from the old system.

P14: Legislation fixes take a long time to happen. One of the main changes is that the arbitration decision is enforceable, kind of like litigation in terms of importance. In the last arbitration law, the arbitration decision was lower than litigation, and the award was not final from two aspects. 1) The court assigned the arbitrators. 2) The court reviewed the final award before it was issued. In the past, if a dispute arose and one of the parties wanted to force the other to go for arbitration, it was a long procedure. The party would contact the court of the first instance, then the appeal commission and the process took a long time, up to one year. But now the parties will go to the appeal court in only specific cases, either to assign the arbitrators in the beginning or if the losing party wanted to appeal. The appeal court will review the procedures to make sure it was correct, regardless of the details in the case or the award itself. They would not change the award unless the arbitration was against the law.

Lawyer - with moderate level of experience

Only one lawyer with a moderate level of experience answered this question, P11. As with some of his more experienced colleagues, he considered that the main change in the new law was making the arbitration decision binding, which was a significant change from the old system. He also agreed with P10 in considering that issues relating to the appointment of arbitrators and the arbitration process that can undermine its effectiveness, opening it up to bias and corrupting influences.

P11: It (the arbitration law in SA) has deficiencies. A lot of pleadings procedures are ignored, and the law is ambiguous. There is no clear procedure and, for further clarification, the law refers to the courts to explain. The courts are always busy and cannot handle all the cases, which is why they direct the parties to the arbitration. The arbitration law does not resolve problems related to the appointment of the arbitrator in cases where parties cannot agree on a choice; then the law states that it

is up to the court to choose. There were some problematic issues in the previous arbitration law, and these have been corrected in the new law. Such as, the arbitration process was slow in the old version of the law, as the arbitration tribunal made the decision then one of the parties appealed to the specialised court. Then, the “Court of First Instance” would look into the case in detail, as a totally new case and it was as if there was no arbitration because this court had full authority to make a new decision. If this court reversed the award, another level of appeal could be done. On the other hand, the new arbitration law does not allow the case to be looked at in detail by the court. The law allows for arbitration invalidity, so the court will check the procedural process in the case only. In my opinion, this is still risky as the decision of the arbitration tribunal is enforceable. But, the decision may have a lot of mistakes, from my point of view. Such as the ignorance (by the arbitrators) of procedures practised by the court. The way the arbitration tribunal tries the case is biased, based on the opinions of the arbitrator, and that will lead to a high percentage of errors. While in the court, the judge cannot make a decision based on his knowledge but based on the strength of evidence; each disputant can provide. I stress that the decision of the arbitration tribunal is based on personal opinions, which makes the whole arbitration process very risky for the parties.

Manager - with moderate level of experience

The two managers who provided a response to this question, P8 and P7, did not have anything to add.

P8: I am afraid that I have not had a chance to read it yet.

P7: No comment. I have not read it.

Legal consultant - with high level of experience

P1, the international legal consultant, broadly welcomed the changes to the law, stating that efforts to make the system in Saudi Arabia align more closely with international practice would enhance the level of engagement by international construction companies in the country.

P1 : I think it is effective. It was necessary to respond to the cultural side of it. The kingdom is trying to move away from a petroleum-based economy, but foreigner investors are reluctant to come to the kingdom because of the legal system. Primarily, they do not understand that it is based on Sharia law, and even the GCC countries use Sharia; they also have codified law. So, I think it is discouraging companies from investing billions of dollars and not being able to predict the outcome of disagreement or dispute. So, I think having a good firm arbitration law, having established arbitration centres, is a good step towards making investors feel more comfortable when coming to the Kingdom.

Legal consultant - with moderate level of experience

The academic P15 mentioned that the English language could be used in the new arbitration law.

P15: Previously, in the old arbitration law, the Arabic language is the only language to be used in cases. In contrast, the English language can be used in the new arbitration law.

To summarise, there seemed to be a general agreement that the main purpose of the 2012 changes to the arbitration law in SA was to making the arbitration decisions binding, which was a significant change from the old law. It was one of the main criticized points that were raised by (Saleem, 2012). However, the new law did not change some of the underlying and disruptive culture associated with the arbitration process. Specifically, the culture surrounding the appointment of arbitrators and bias in the arbitration process was not addressed in the new law. The result being that corrupting influences can still have an impact under the new law and undermine trust in the system.

5.4.3 (Q4C): Effectiveness of Arbitration Law

This question looked specifically at how the Arbitration law is applied to construction projects in Saudi Arabia. The author asked interviewees if they believed that the arbitration law in Saudi Arabia is effectively applied and how its use differed for public sector and private sector project disputes. The literature Fletcher (2012) revealed several advantages of arbitration in resolving disputes. Hence, the interview outcomes will reveal these advantages and their practice in SA.

Arbitrator - With high level of experience

The arbitrator, P17, considered that the application of the law could be more effective if the restrictions relating to the appointment of the tribunal chairperson was broadened to include people who were experts in the field relevant to the issue being disputed (not just a legal expert). He also stated that the executive regulations that help with the interpretation and application of the law have not yet been published (Note: this view was not supported by the lawyers, who stated the regulations were published in 2017).

P17: I believe the condition of the chairman's background should change, and anyone who is an expert in his field can be a chairman of the arbitration tribunal. One more thing, they have not issued the executive regulations for the arbitration law yet, despite the arbitration law itself being issued in 2012. There is a conflict of responsibilities; the Ministry of Justice thinks they are responsible for issuing it while the Ministry of commerce seeks the same right.

Lawyers - with high level of experience

The lawyer P5, thought that the current law was effective. He played down the importance of the executive regulations, suggesting that they are only issued to fill small gaps in the law and that problems in the application of the law lie more with the arbitrators than with the law.

P5: The new Arbitration Law is good, in terms of the procedures of arbitration. It is aligned with UNCITRAL Arbitration rules, but still, the executive regulation of the law is more important. The law itself provides more details of the process, so executive regulations are issued to fill only small gaps in the law. The arbitration law is efficient, but we need good arbitrators.

P6 listed several concerns with the current law and the executive regulations but did consider it better than the previous law. He was critical of the fact that the law did not mention the arbitrator's fees, or what happens when one party either refuses to pay the fee or rejects the choice of arbitrator. He suggested that the refusal by one party to cooperate is often why arbitration cases take so long.

P6: We have no other arbitration law to refer to, but I would say it is better than the previous one. It is not ideal yet. They did not mention about the arbitrator's fees. In

the case, that one of the parties refused to pay the arbitrator, then what should happen? If one of the disputants refuse to appoint the arbitrator, they must go to the court, which is a negative point. Details of the conditions for award invalidity are not mentioned. The length of the arbitration process is not specified, and finally, the Executive Regulations were poorly written. The average time is between 2 to 3 years; it is still quicker than the court. The delay happens because of a very late response from one of the parties.

P10 agreed with P6 that the new law and its executive regulations are better than the old versions. He considered that the new law provides useful flexibility, allowing the arbitration tribunal to set specific procedural rules for each individual case.

P10: The old arbitration law was periodical, which means the first issue was suitable for that period of time when the projects were not as huge as they are today. Current projects have changed a lot, and the old arbitration law did not deal effectively with the international nature of trade. Compared to the old law, the new arbitration law does that better? Generally, the new arbitration law, with its executive regulations (issued in 2017), looks practical for resolving disputes. For example, the executive regulations let the arbitration tribunal adopt a customised system for each case. Like setting specific litigation rules for a certain case. Then, 10 days on from the first arbitration meeting, these rules become special to this case, but there is still the big umbrella of the new arbitration law. This is the flexibility within the new arbitration law.

P11 emphasised that the arbitration process follows some of the same procedures adopted by the courts. Especially in the appointment of technical experts to advise on a case.

P11: What happens in the arbitration process used here in SA is similar to what happens in the court. They appoint an engineer to make a technical report for the case, whether there is an engineer on the arbitration tribunal or not. The law says that the chairman of the arbitration tribunal should hold a degree in law or sharia. Each party chooses his arbitrator, and most of the time, the tribunal will appoint an engineer outside the tribunal to write a technical report due to different opinions between the tribunal members. This is exactly the same practice in the court.

The lawyer P12 raised several of the issues mentioned by P6, in relation to fees. However, he added that the process to be followed if the dispute is resolved quickly and amicably before the end of the process is not clear. He suggested that the eventuality may happen, especially when parties fear that there is a risk the whole case may have to be reheard by the court.

P12: I would say the biggest obstacle is the decision to invalidate the arbitration decision, by the appealing court. Everyone involved in the case will be worried that it might happen and they will have to start the process all over again. The arbitration process has to start from the beginning with fixed fees and costs. The law does not mention anything about the arbitrator's fee, and this is an issue. There should be an institution or organisation to regulate the fees. If the case is solved amicably, in the middle of the case, there should be procedures to follow for setting a reasonable fee. There is another issue, which is that if one party refuse to pay the arbitrator fees, the claimant should pay them both.

P14's view reflected the sentiment of several other lawyers, suggesting that the law was generally effective and there was enough guidance to explain what to do when issues arise.

P14: It is sufficient enough to deliver justice. It is also flexible when it comes to setting meetings, deciding the way of communicating and assigning technical experts. There are some clauses that explain procedures to follow when there is a conflict of interest.

Lawyer - with low level of experience

Noting that he had no experience of arbitration in Saudi Arabia, the international lawyer P18 considered that the law was generally effective for dispute resolution.

P18: It resolves many disputes, and if it was not successful, it would not have been practised for all these years. I have not done any arbitration in SA, and I do not have much knowledge about the arbitration law here.

Managers - with low level of experience

Only one construction manager, P7, made a comment on this topic, and he had quite a low level of experience. He simply pointed out the distinction between the public and private

sector use of the law. The arbitration law is used more widely in the private sector, as the public sector uses the Board of Grievances for dispute resolution.

P7: Parties in the private sector go arbitration while they use the Board of Grievances for dispute resolution.

Legal consultant - with high level of experience

P1, the international legal consultant, considered that the current law is effective enough in its current form.

*P1: It is a provocative question, I have not thought about it. What would I change?
The law is modified after another arbitration law. I think what the Kingdom has tried to do is taking the best different laws and different models and bring them into one.
So, I think it is pretty robust right now. I would not change anything to improve it.*

Legal consultant - with moderate level of experience

From an academic perspective, P15 felt unqualified to express an opinion.

P15: I do have enough information; the lawyers can give you better answers.

To summarise the overall feeling amongst the interviewees was that the current arbitration law and its executive regulations are better than the previous law and are effective. The literature discovered that the new arbitration law had categorised the various arbitration topics to overcome the previous arbitration law's ambiguity (Altheyabi, 2013). The new law has introduced some useful flexibility in the process to be followed and aligns well with the procedures used by the courts in Saudi Arabia, especially in relation to the use of external experts. Some specific issues were raised, including:

- The requirements in relation to the legal background of the arbitration tribunal chairperson were perhaps too restrictive.
- Problems linked to the effectiveness of the system may have less to do with the law, than with the effectiveness of the arbitrators themselves.
- The rules regarding the setting and payment of fees are not clear enough.

- Guidance about what to do if one party refuses to cooperate and frustrates the arbitration process is not clear enough

5.4.4 (Q4D): Further changes to Arbitration Law is needed

This question sought to gain insights from the interviewees about the need for further changes to the Arbitration law in Saudi Arabia. Only seven of the interviewees answered this question. Those who did not answer generally stated that they lacked sufficient knowledge of the law's changes to comment. The literature declared some changes to the new arbitration law that could improve its practice, such as lifting the restriction to allow the government bodies to enter the arbitration agreement in their contracts (Alrajaan, 2017).

Arbitrator - With high level of experience

P17's view was unexpected and somewhat negative. He suggested that the predominance of legal experts (lawyers) on the arbitration law committee was a hindrance to further changes of the law. The inference that could be drawn from this is that the experience of non-legal participants in the arbitration process is not well considered when evaluating changes to the law.

P17: I do not think so, because lawyers are dominating the legal process. We do have a committee to review the arbitration law, but all of the committee members are lawyers and judges. You can imagine how impossible it is to change in these conditions.

Lawyers - with high level of experience

The first lawyer's response, P5, proposed quite an important change to the law. He suggested including a power to enforce a temporary stop to construction operations. That would enable a quick inspection and decision from the arbitration tribunal and is similar to a power that the courts in Saudi Arabia already have.

P5: I suggest (further changes to the Arbitration Law) to include prompt and temporary decisions to be made, especially on construction contracts. What I mean by that is, to temporarily stop the work for inspection or similar and get a quick decision. The current law does not include any article about it, and I would suggest

providing the arbitration tribunal with authority to make a temporary decision. The current practice states that any prompt decisions should come from the court, which will hinder the dispute resolution process, particularly in the construction industry.

P6's suggestion did not specifically relate to the arbitration law, but to the involvement of lawyers [who understand the arbitration law?] in the process of drafting construction contracts.

P6: Any contract in the country should always be checked and approved by lawyers. It is similar to having an accountant in any firm. We should spread the legal culture amongst all organisations, not only in the construction sector.

P10 provided quite a detailed response, which focussed on changing the provisions for the appointment of arbitrators. He recommended that the task should be assigned to an independent entity and be based on a list of accredited and classified arbitrators. He felt that this change would significantly improve the arbitration process by making sure that arbitrators with the correct skills and experience are appointed for each case.

P10: One of the most important things to change is the way that the arbitrators are selected. In addition, there should be a classification system for the arbitrators in order to assign the right case to the right arbitrator. This task should be assigned to an independent organisation, to issue a list of accredited and classified arbitrators. We do have a list of arbitrators, 700 to 800 Saudi Arbitrators are listed by the Ministry of Justice. But, I wish it to be classified and have specialised arbitrators for certain industries. It is not right that I have a case worth 200M SAR and the arbitrator for this case is not expert enough to handle the case. The system allows anyone to become an arbitrator, apart from the chairman of the arbitration tribunal, and this is not right, in my opinion. I do not agree with that. For example, I have a case that has 2 arbitrators from an engineering background. I told them clearly you are technical experts, who should have useful input to the case. I am a lawyer, not an engineer. In the end, I have to give a final award, which should follow some law procedures you are not aware of. Your primary and useful input is in the technical side and understanding the bill of quantities.

P11 provided a list of three changes that he thought were needed. First related to providing additional clarity on precisely how arbitration clauses in contracts should be worded and include details about the legal significance of the “arbitration document”. Second, he felt the current law conflicts with the process of Sulh in Saudi Arabia and that conflict needed to be rectified. In that regard, he advocated giving the arbitration tribunal the power to make non-binding decisions, in the spirit of Sulh. Finally, he felt that the feature of the law preventing courts from reviewing details of an arbitration hearing and limiting them to only looking at the process used, needed to change.

P11: Normally, changing the law will take a long time, years I would say. There is no specific time limit, and it depends on the circumstances. There is no clear procedure. First point (of changes needed to the Arbitration Law); the current arbitration law does not mention anything about the arbitration document, which was included in the previous arbitration law. They stick to the arbitration clause in the contract, but some parties refuse to sign the arbitration document. At the same time, the arbitration clause in contracts is often vague. Second point; the authority is given to the arbitration tribunal to resolve the dispute amicably “Sulh” {Article 38/B} is not appropriate and is not compatible with Judicial systems in SA. If both parties agree on Sulh, then the tribunal should make their decision according to that, and it will become enforceable. It is totally against the concept of Sulh, which is a way to resolve the dispute, and it is enforceable. It is a big issue as the tribunal can still make their decision based on no evidence, so that article from the arbitration law should change. Third point; the invalidity of the arbitration process is not practical, as we should study the case thoroughly. For example, sometimes the main issue is within the details of the case, and if we do not review it, it is an injustice and unfair. The tribunal sometimes encompasses inexperienced arbitrators and people who are guided by the parties and their common interests.

The final lawyer response, from P14, was generally supportive of the law in its current state.

P14: I do not read the law from a criticising point of view. At the same time, I have not faced any case that the new law did not support.

Legal consultant - with high level of experience

The only other response to this question came from the international legal consultant, P1. He suggested having more flexibility in the different languages that the arbitration can be conducted in, not just Arabic.

P1: I have a couple of thoughts related to what I would change. The law will be arbitrated in Arabic, and of course, that is going to impact the claimant and the respondents. If it is a foreign party, maybe, I do not know, would you arbitrate in English or Dutch or German? I do not know if there is a good answer to that. I do know currently that a lot of European contractors insist that their contract, the dispute resolution process is in their own language. I forgot which the language is, but it could be in English. Usually, they want to arbitrate either in Brussel, London or Paris, even though the law that governs is Sharia or the law of SA. The law that will govern the contract will govern the arbitration, but it is in a different country. I do not quite understand why, but I guess that they feel more comfortable having it that way.

To summarise, the interviewees provided some useful insights about possible changes that could be made to the arbitration law in SA.

- Allow views from a broad range of participants to the arbitration process to contribute to hearings of the arbitration law review committee.
- Allow arbitration tribunals to enforce a short shut down of a project to facilitate a quick inspection of the works and a quick decision by the tribunal.
- Allow the arbitration tribunal to make non-binding decisions, in the spirit of Sulh.
- Allow courts to review details of an arbitration case and not just the procedure
- Provide greater clarity about exactly how arbitration clauses and the arbitration process are described in contract documents
- Assign the task of appointing arbitrators to an independent body and insist that selection is limited to a list of accredited and classified arbitrators.
- Introducing more flexibility in the language used for the arbitration process.

The interviews provided the author with a considerable amount of detail about the arbitration system in Saudi Arabia, enabling him to develop considerably deeper insights about the scenario presented at the beginning of this chapter. Previous analysis has already

revealed that the arbitration law is generally viewed as working effectively, and the interview analysis supported that view. As such, any problems the disputing parties might encounter in their case would more likely down to the competency of the arbitration tribunal selected to hear their case. In addition, the interviews revealed that the process to be followed if one or other of the parties failed to cooperate with the process, might not be clear. The current system used to select the tribunal is open to corrupt influence, so the weaker party in the case may contest the outcome if they suspect that undue influence was used to sway the tribunal's decision. It would have been better for this dispute if the arbitration tribunal was appointed by an independent body and the tribunal selected from an approved and categorised list of appropriately qualified people. The fact that in the scenario the tribunal issued a non-binding decision, requesting that the main contract hold back from cashing the two cheques, was a positive one. That aligns well with the interview recommendations that the arbitration process should include more non-binding decisions before issuing their final, binding decision. That process would be very much in the spirit of the Saudi Arabian process of Sulh, which is the traditional way of resolving disputes in an amicable way.

5.5 Conclusion of the main findings and contribution to the understanding of the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia

This chapter has outlined a detailed and structured investigation into the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia. The grounded theory-based approach started with a reflection on the position of the author as an active participant in efforts to resolve disputes in the Saudi Arabian construction industry. That reflection revealed that, despite many years of specialist education and industry experience, understanding of the arbitration process was not guaranteed. As part of this PhD programme, the author sought out opportunities to deepen his understanding of the arbitration process in Saudi Arabia and found limited material in published research. International academic events where dispute resolution issues were discussed were equally unenlightening. The author was able to discover quite a lot about the general theory of dispute resolution system in different parts of the world. However, his main hypothesis

remained valid. Namely that, despite the law on arbitration is well established in Saudi Arabia, there is very little evidence of research assessing the effectiveness of the arbitration process in changing construction industry culture and reducing the frequency and severity of disputes in the industry. In that regard, his research aims to assess how the arbitration process can be harnessed to apply new learning about construction industry culture to mitigate the future frequency and severity of disputes in the industry was needed.

Important findings from the research in this thesis started with the analysis of the JCCI data. The first quantifiable contribution is that the average length of time to complete an arbitration case via the JCCI was 7.5 months and that 90-95% of decisions were appealed. Despite the high appeal rate, the average length of the arbitration process from the first meeting until the award was judged to be a good level of efficiency when compared to the litigation process. Initial fears that the high level of appeals could be a problem for this research, undermining any proposal that aimed to increase levels of awareness and use of arbitration in Saudi Arabia were reduced by the survey and interview data analysis, which showed that generally the arbitration process was judged to be effective.

The survey data analysis revealed previously unreported strengths and weaknesses in the Saudi Arabian arbitration process. The four-strong points about arbitration in Saudi Arabia were found to be (in rank order):

1. The arbitration process is transparent
2. The final award from the arbitration process is satisfactory
3. Cooperation between disputants involved in the arbitration is good
4. Communication between parties in the arbitration process is effective

The two areas where the arbitration process is less strong are (in rank order):

1. The arbitration process works smoothly
2. I know how the arbitration process in Saudi Arabia works

The survey data confirmed the author's own early judgement that simply engaging in the dispute resolution process does not help in gaining a better knowledge of the arbitration process. The only ways to address that was to secure a formal role in the process. Even then, opportunities to gain experience of arbitration are limited, as arbitration clauses are only "sometimes" written into construction contracts in Saudi Arabia. As a consequence, the

survey found that, despite having an arbitration law since 1983, the arbitration process in the country is still not very well understood. That said, this research confirmed that changes to the arbitration law in 2012 have had a small but positive impact on the practice of arbitration in Saudi Arabia.

Previous research had suggested that adjudication, litigation and arbitration are too slow to achieve effective results in Saudi Arabia (Al-Ammari & Timothy Martin, 2014; Nesheiwat & Al-Khasawneh, 2015) . However, this research has revealed that the law itself is judged to be ok and that issues affecting the efficiency and effectiveness of the process are largely down to the people involved in the process. In Saudi Arabia, the problem with the quality of the people led parties involved in larger projects to seek support for the settlement of disputes outside the country. For smaller projects, unfamiliarity with or distrust of the arbitration process led parties to exclude arbitration clauses from their contracts, going instead straight to litigation. However, and importantly for this research, parties who were familiar with the arbitration process rated it as much more effective and efficient than the litigation process.

The interview analysis also revealed a general agreement that the main purpose of the 2012 changes to the arbitration law in SA was to making the arbitration decisions binding, which was a significant change from the old law. However, the new law did not change some of the underlying and disruptive culture associated with the arbitration process. Specifically, the culture surrounding the appointment of arbitrators and bias in the arbitration process was not addressed in the new law.

The result being that corrupting influences can still have an impact under the new law and undermine trust in the system. The overall feeling amongst the interviewees was that the current arbitration law and its executive regulations are better than the previous law and are effective. The new law has introduced some useful flexibility in the process to be followed and aligns well with the procedures used by the courts in Saudi Arabia, especially in relation to the use of external experts.

The author was able to define several proposals to enhance the arbitration system in Saudi Arabia. These include:

- Change the requirements in relation to the legal background of the arbitration tribunal chairperson, which is currently too restrictive.

- Change the system used for appointing arbitrators, possibly by using an independent body and drawing from an approved and categorised list of qualified arbitrators.
- Clarify rules regarding the setting and payment of fees for the arbitration process.
- Improve guidance about what to do if one party refuses to cooperate and frustrates the arbitration process
- Allow views from a broad range of participants to be included in hearings of the arbitration law review committee.
- Allow arbitration tribunals to enforce a short shut down of a project to facilitate a quick inspection of the works and a quick decision by the tribunal.
- Allow the arbitration tribunal to make non-binding decisions, in the spirit of Sulh.
- Allow courts the discretion to review details of an arbitration case and not just the procedure
- Provide greater clarity about exactly how arbitration clauses and the arbitration process are described in contract documents
- Introducing more flexibility in the language used for the arbitration process.

Chapter 6 - Results and discussion on new insights about culture in the Saudi Arabian construction industry

Scenario 3

I was invited to attend a third arbitration hearing on 21st March 2018. Instantly, it is clear to me that this case is quite unlike the other two. This case seems to be more complicated, with claims and counterclaims. The parties appear much more adversarial, and the client is absent. The case is being argued between the main contractor and a consulting engineer who is representing the client. There seems to be a lot of bad feelings in this case, as the contractor is blaming the client's consultant for the trouble he is now experiencing with the client. Essentially, it seems that the client's consultant approved some of the work done by the contractor that was later rejected by the client. But, there is some confusion, as this consultant may not be the same one who approved the works and this consultant is, therefore, suggesting that the contractor's claim is invalid. To complicate matters further, the dispute has now raised a counterclaim by the client that the contractor appointed a sub-contractor without his approval. Finally, it seems that the project is at an end, and the consultant has claimed that the contractor is refusing to hand the project over to the client. To that charge, the contractor denies the accusation and claims that he has not received any formal communication to that effect. At this hearing, documents from the parties were handed to the arbitration tribunal, who then retired to review them before meeting again.

As with the previous two discussion chapters, this scenario will provide a basis for the interpretation of findings from this project and to highlight the contribution made by the research to knowledge about construction cultures and their role in the evolution and management of disputes.

At the beginning of this research, the author hypothesises that the culture of the Saudi Arabian construction industry was not well studied and that its influence on the evolution of disputes is less well understood. The author considered that there were a growing awareness and concern that the current culture is having a detrimental effect on levels of

trust between parties to construction contracts in Saudi Arabia and there was an urgent need to verify if this concern is valid or not. This chapter will directly assess the validity of that hypothesis.

6.1 Introduction

The construction culture impacts the construction industry and how the parties dealt with their disputes, as described in chapter 2. The previous chapter discussed the practice and the efficiency of arbitration as an approach to resolve disputes. In this chapter, the author discussed how cooperative are the parties to resolve the disputes when occurred. Moreover, the level of organisational culture training had been asked and analysed. The data from JCCI did not reveal enough information about the culture. However, the interviewees provided informative data about the link between organisational culture and disputes. ARAMCO case was discussed and analysed to examine its influence on arbitration law in Saudi Arabia. The author analysed and stated the main findings of these main questions in this chapter.

6.2 A quantitative survey to reveal the basis of culture and its impact on the Saudi Arabian construction industry

In accordance with the grounded theory approach adopted by this thesis, and building off the results from the early explorations into culture described above, Q10 of the survey asked respondents to rate the extent to which company personnel are given organisational culture training. Although the mean score for all groups was consistent and neutral on the extent of cultural training, there was quite a diverse range of responses. Most responses ranged between 2 to 4, suggesting that in some companies, cultural training does take place, but in others, it does not. The positive finding from this data is that there is some recognition of a need for culture training in companies operating in Saudi Arabia. However, the data cannot say to what extent that awareness has spread across the industry or which companies have implemented culture training.

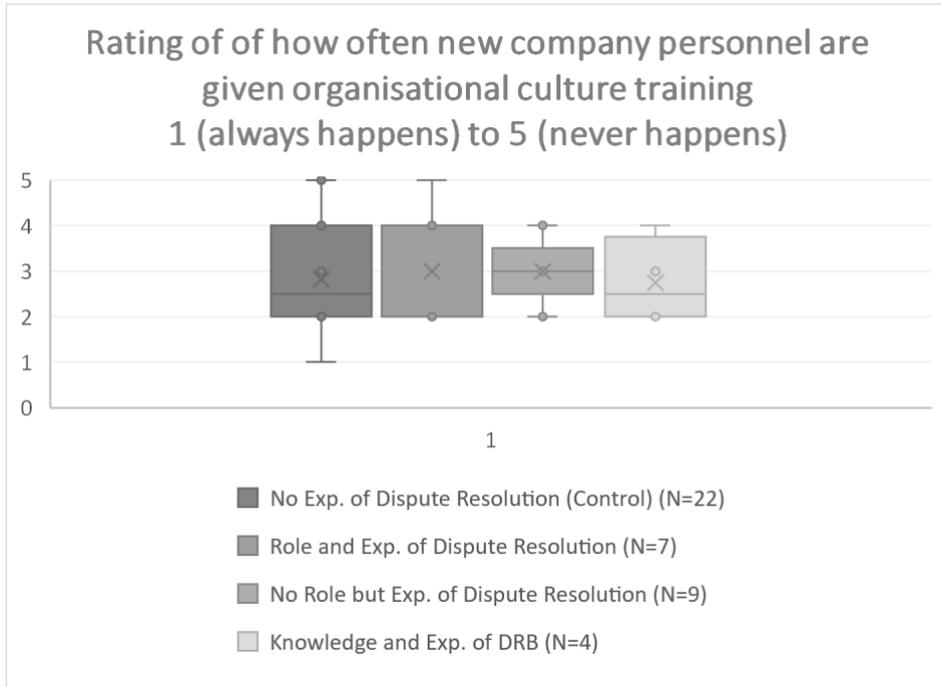


Figure 6. 1 Analysis of survey question 10 relating to the level of culture training in the construction industry of Saudi Arabia

Q11 of the survey sought to assess the level of cooperation that exists between parties when working to resolve a dispute on a construction project in Saudi Arabia. Figure 6.2 below shows that the range of responses from all subgroups was very consistent, with an average that ranged between a score of 2 to 3. That is slightly on the pessimistic side and suggests that the culture in Saudi Arabia is not very cooperative.

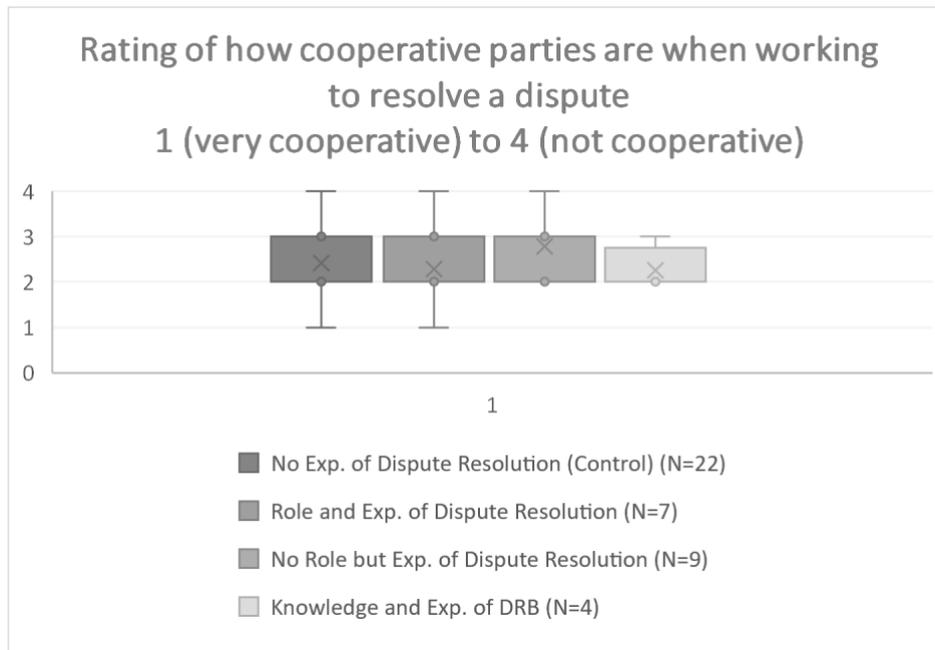


Figure 6. 2 Analysis of survey question 11 relating to the level of cooperation in the construction industry of Saudi Arabia. Some questions analysed in Chapters 4 and 5 are helpful in gaining a deeper understanding of the culture in the Saudi Construction industry. In chapter 4, survey question 9a asked respondents to score the statement “If a dispute arises on a construction project in Saudi Arabia, it will always be resolved in a friendly manner”. A score of 1 = strongly agree and a score of 5 = strongly disagree. Figure 4.3 in Chapter 4 has already presented the results to the question 9a and analysed the responses from the perspective of the level of disputes in the Saudi construction industry. The previous analysis found that the control group, the group with experience of disputes and the group with a role in dispute resolution all gave similar responses, agreeing with the statement. By contrast, the most experienced group, those with experience of engaging the DRB, were neutral. The inference was made that with little or no experience, the industry practitioner’s natural inclination is that disputes will be resolved amicably. However, as greater experience is gained, so that early (perhaps naïve) optimism diminished. From a cultural perspective, the results suggest that, as people enter the industry and before they become deeply engaged in the dispute resolution process, their perception about the culture of the industry is one of amicable collaboration to overcome disputes. Somehow, as their experience develops, so the perception of the culture shifts towards one of a less collaborative and more adversarial nature.

Also, in Chapter 4, Q15 of the survey revealed that weakness in the contract articles is a common cause of construction disputes. Cultural characteristics in Saudi Arabia that the

“good faith” principle leads to poorly written contracts. The form that those disputes take was revealed by Q16, which enabled the author to rank the most common cause factors leading to disputes in Saudi Arabia. From a cultural perspective, most of the factors are common to construction industries across the world, but the significance of disputes caused by clients changing their mind during the execution of a project was judged to quite unique to the construction culture in Saudi Arabia. Finally, in Chapter 4, Q17 revealed a strong cultural practice amongst construction project clients in Saudi Arabia to choose the lowest priced contract bid. Research in other countries has found that that particular cultural practice often leads to unsuccessful project outcomes, so is a feature of the Saudi construction industry culture that needs to be changed.

In Chapter 5, questions relating to the arbitration process were analysed. Q18 revealed strengths and weaknesses in the Saudi Arabia arbitration system. Some strong and positive cultural features of the system were revealed, especially in relation to levels of transparency, communication and cooperation that happens between parties involved in the process. But the problem is that the process is not well understood within the wider construction community. Q19 revealed important reasons why the positive cultural features associated with the arbitration process are not widely understood. It was that arbitration clauses that are only “sometimes” written into construction contracts in Saudi Arabia. Q20 and Q21 indicated a historical reason for the weakness in relation to the use of arbitration, namely that the original arbitration law was not as effective as it needed to be. However, changes to the law in 2012, were found to have improved arbitration practice in Saudi Arabia, and those changes were slowly changing cultural attitudes toward the arbitration process. The strong connection between the positive features of the arbitration process and cultural practices that lead to successful project outcomes leads the author to conclude that further efforts to improve the wider use and understanding of arbitration in Saudi Arabia is a very good basis for promoting positive cultural change in the construction industry of the country.

To summarise the main findings of this section, the survey conducted as part of this thesis has revealed positive signs that some employers in Saudi Arabia are beginning to recognise the importance of cultural awareness and have started to provide culture training for their employees. However, when working to resolve disputes in the country, cultural awareness

has yet to make an impact on the level of cooperation between the parties when working to resolve disputes. Drawing together lessons from elements of the survey analysed in chapters 4 and 5, the author revealed unique features of the culture in the construction industry of Saudi Arabia that both help and hinder the way that disputes arise and are resolved in the country. As a basis to effect change, the arbitration process was found to have a number of positive cultural features and could provide an effective base from which to promote positive culture change in the construction industry of Saudi Arabia. The lessons learned can be applied to the scenario at the start of the chapter and would suggest that the parties were part of a growing trend in Saudi Arabia of organisations that are sufficiently aware of the arbitration process to include clauses in their contract that enabled them to use the process. That in itself may be viewed as a sign of positive cultural change, but their behaviour in the dispute reveals they are victims of the culture of poor cooperation that is significant in the Saudi construction industry. However, their experience of the positive features in the arbitration process may help the parties understand how further cultural change may lead to beneficial impacts on the success of their future projects. But those benefits will only be realised if the parties actively engage in programmes to raise awareness and understanding about culture in their organisations.

6.3 Detailed interviews to understand the basis of culture and its impact on the Saudi Arabian construction industry

The interviews conducted as part of this PhD included four questions about culture in the construction industry of Saudi Arabia. These include:

Q2A- Culture has been a subject of study for many decades and researchers have revealed many different ways in which cultural frameworks within societies, industries and organisations defined the shared values, basic assumptions and beliefs held by the individual in those societies, industries and organisations (Dawson, 1992; Deal, 1982; Hofstede, 2005; B. Y. Obeidat, 2012), to name just a few.

In your opinion, how well studied is the cultural framework that shapes the culture of the construction industry in Saudi Arabia and what aspects of the cultural framework are most in need of further study?

Q2B- Rameezdeen & Gunarathna (2012) identified four organisational culture types:

- Clan culture - Participation and openness are the main characteristics of this organisational culture; as such, the culture aims to involve everyone in the organisation's activities and decisions. Rewards are based upon group performance rather than individual performance.
- Adhocracy culture – The culture is focussed on the growth of the organisation, mainly by encouraging innovation and adaptation.
- Market culture – In this culture, efforts are directed to the maximisation of business efficiency, improving levels of productivity and profit.
- Hierarchy culture – This culture focusses on compliance with rules and respect for roles in the organisation, often prioritising the bureaucratic process within the organisation.

From your perspective, how well do these cultural typologies map onto Saudi Arabian construction companies and can an understanding of these typologies reveal lessons about the development and resolution of disputes on construction projects in the country?

Q2C- Schwebel (2010) argued that the culture on construction projects in Saudi Arabia underwent a significant shift after a dispute on a large oil project in 1958.

The dispute involved the Arabian American Oil Company (ARAMCO) rights to explore and produce crude oil in the Kingdom of Saudi Arabia.

From your experience, how has the legacy of the ARAMCO case influenced the culture on construction projects in Saudi Arabia and has it helped or hindered the ability of the industry to reduce the level of conflict on construction projects in the country?

Q2D- The Global Leadership Organisational Behaviour Effectiveness (GLOBE) project looked at culture from a leadership perspective (R. House et al., 2002). The research programme sought to understand how leaders affect and are affected by an organisation's culture, and it identified nine dimensions to an organisational culture linked to leadership:

- i. Uncertainty avoidance: The level to which leaders of organisations avoid uncertainty to lessen the changeability of the future.
- ii. Power distance: The level to which leaders of organisations believe that power should be shared.
- iii. Collectivism 1: The extent to which leaders encourage cooperative distributions of resources.
- iv. Collectivism 2: The extent to which leaders are expected to balance loyalty to their families against loyalty to the organisation.
- v. Gender egalitarianism: The level to which leaders of the organisations reduce gender role differences.
- vi. Assertiveness: The degree to which leaders are aggressive in social relationship.
- vii. Future orientation: The level to which leaders plan for the future.
- viii. Performance orientation: The extent to which leaders of organisations reward group members for their performance.
- ix. Human orientation: The degree to which leaders rewarded others for their honesty and fairness.

In your opinion, to what extent do the GLOBE dimensions of organisational cultures reflect the culture in the construction industry company leadership in Saudi Arabia and which of the dimensions are most dominant in shaping the culture of construction organisations in the country?

6.3.1 (Q2A): How culture links to disputes

With Q2A, the author aimed to explore the foundations of the construction industry culture in Saudi Arabia. Especially those elements that link with the causes of disputes. The literature revealed that the procurement system's culture shapes the contractual agreement between the parties that are one of the sources of disputes (Fernando, 2002; Ministry of Finance, 2015; Rameezdeen & De Silva, 2002)

Arbitrator - With high level of experience

The arbitrator P17 stated that the good faith principle is rooted in Saudi Arabian culture. That principle comes from the Islamic culture, which says all Muslims must be honest and should keep their promises. That is why parties often get into a contractual agreement without written terms. Then the process of Sulh was traditionally used to resolve disputes.

P17: Unfortunately, there is a big issue about disputes generally, especially the good faith concept. The contractor and the client do not write enough details in the contract documents, and they do not give it enough attention. That is because of the trust between them at the beginning, and the good faith principle. The community culture in SA stems from this trust, and this is Islamic culture, from a very long time ago. The Muslim man should be honest, and that is why they trust each other. However, the practice is different. For example, 40 years ago, the judge in court barely participated in a case, because people at that time did not go to court. People resolved their disputes by Sulh (amicable way), both commercial and non-commercial disputes. I also believe that, due to this reason, people do not document their contractual agreements in a proper way and in good detail. It is because the culture is of dealing with each other in good faith. Previously, the culture was better because people were more friendly and coped well with each other. Now, people are upset when a dispute goes to arbitration or court, and their relationship comes to an end, even for future jobs.

Lawyers - With high levels of experience

The lawyer P6 stated that the local culture does not pay attention to the legal side of the contract. He considered that many parties feel the contract paperwork could be done by a secretary, but he thought it is crucial to have a lawyer to review the contract documents. The culture means that the system for resolving disputes is often not described in the contract.

P6: 99% of the local culture focuses on the feasibility study and the total project cost. The parties do not pay attention to the legal side, and legal culture is almost non-existent. Therefore, appointing a lawyer is considered to be unimportant and costly. The parties believe that generating contract documents is paperwork that can be done by the secretary. If a dispute arises, they will appoint someone to write the case in detail before going to arbitration. The parties do not discuss whether the

arbitration is institutional or ad- hoc, neither have they known if one of the parties refuses to go to the court what to do next. Therefore, the main problem we have is producing contract documents that include the appropriate arbitration articles within them.

P10 considered that the culture is a cumulative one, where parties copy the previous contracts and update them for new projects. That means some area of the contract documents are very well covered, technical issues and the litigation process, but some areas related to dispute resolution need further up-dating.

P10: The existing culture is a cumulative culture, which depends on taking the existing contracts and update them partially. However, the update we have now is not compatible with the number of claims in court. Most contracts do not effectively resolve delay issues in execution and the direct and indirect compensation related to those delays. The current contracts do not resolve this issue, while the remaining items, such as technical issues, bills of quantities as well as the specifications, are well considered in the existing contracts. When it comes to litigation, we will notice that these items are well explained in current contracts.

The lawyer P12, acknowledge the need for the good faith principle, but also stated that contracts should include clear and full details on how disputes should be resolved. He also considered that there is a lack of provision in the country for Alternative Dispute Resolutions (ADR) options.

P12: There is only one arbitration law. The contractor might have some questions about the arbitration process and the revocation of judgments. Some cases in arbitration take a longer time than usual, 2 years, and eventually, the appealing court decides to make the decisions invalid. There should be good faith between the client and the contractor. Both parties should have a good reputation in the market. The contract should be clear and full of details and include a clear approach for dealing with disputes, either via arbitration or court. Some contracts include Alternative Dispute Resolution (ADR), but unfortunately, we do not have these types of contracts in SA. What we have is a technical expert opinion.

The lawyer P5 talked extensively about the big contractors and how professional they are in communication and relationship with the owners. In contrast, with small contractors, that kind of positive culture does not exist. He also agreed with the other lawyers, in that the Saudi Arabian construction culture often leads to contract documents with inadequate detail. To that, he added that the consultant is not normally an independent and objective voice in disputes, often taking the client side against contractors.

P5: It all depends on the level of business; for example, big contractors believe that the relationship between them and the clients are mutually win-win. Therefore, they coordinate better with each other to try to avoid further disputes. They also communicate very well with the consultants. While at the lower level of the business, for example, with smaller contractors, the culture is almost non-existent. What I mean by the culture, is the good culture of cooperation. The contractors at this level are looking for their profits only, and this will lead to more problems, especially if there are poor contract documents. The main issue with construction contracts is the technical side of it. The more the contract and its scope of work are clearly defined, technically, the less likelihood of disputes in the future. Especially the terms and conditions and the specifications too. A second issue with the culture is the payment, and what contractors should receive based on their job. This should be written clearly in the contract. A third issue is the frequency of change orders, especially later during the execution phase. The change order process should be clearly described in the contract or at least the conditions for their use. Clients should be made aware of the impact of issuing change orders during the production of the contract documents. Unfortunately, contracts nowadays in the Kingdom, are either copy and pasted ones [from previous projects] or just deficient [overly simple] contracts and problems often appear later. Some contracts are translated word by word from different cultures, which are different from ours. Especially when it comes to the legal process to followed [in a dispute], as the processes from different countries can't be applied in SA. The culture is different for each party in the contract that includes the independency of the consultants, who should be more professional and not take any side in a dispute (between a client and a contractor). The main task of the consultants is to make sure that the works are constructed as per the specifications,

but that role doesn't work properly in the region. Most likely, the consultant will take the client's side, and a clash will happen between him and the contractor. Officially, the consultant is not part of the dispute, but practically he becomes part of it, by choosing to be on the client's side.

In a positive response to the idea of this research, the lawyer P14 that the construction culture in Saudi Arabia needed further study. He suggested more research is needed to understand the benefits of raising awareness about the dispute resolution process.

P14: This is an academic question, and I do not have a firm answer to it, but according to my knowledge, I do not think this area has been researched enough. There is much research about Islamic culture. The other part of the question, about what needs more research, is people's awareness about dispute resolution. I believe there is a need more research to discover how deep that awareness is amongst the parties, and how import is having that awareness. It is also about how beneficial that awareness will be for the construction industry.

Lawyers - With moderate levels of experience

P11 scored the contractual culture 3 out of 5, citing issued raised above, that many parties enter into contracts without detailed knowledge of the contract terms.

P11: It depends on the organisation. I have noticed a lot of people trying to get a contract without reading the contract document clearly, and they do not know a lot of details (of what is included in the contract clauses). I can give the contractual culture (in SA) 3 out of 5.

For the international lawyer P4 , she declared that the good faith culture is strong in Saudi Arabia, with verbal agreements being common. However, that principle leads to poorly defined contract documents and then many disputes.

P4: for me, in the region here, it is very different in the sense that a lot go with verbal promises and on trust. People tend to think if someone told them that I am going to do that and accept it, the written contract may come, but not a lot of thought is given to the written contract. Because people have agreed verbally, the written contract is a formality and not negotiated enough, in my perspective. Not enough analysis is done to make sure that the verbal agreement is reflected in a written

contract. Often, we see this is as the reason for disputes. People say no, this is what we decided, but when they look at the contract, it is totally different. This is what I have noticed since I have worked here in SA.

Lawyers - With low levels of experience

The final lawyer, P18, stated that there is a weakness in the Saudi Arabian when compared to the other Gulf States. Specifically, the contracts administration culture in the country is not as advanced as in countries such as the UAE (United Arab Emirates) and Qatar. That is why the quality of the contract documents is insufficient. P18 suggested that to address the problem; there is a need to hire people from outside the country to administer contracts.

P18: I think that, since I have worked a lot in the gulf area (Qatar, UAE in Emaar, Kuwait), I will talk about the gulf countries construction culture. If we compare knowledge about how to administer construction contracts and disputes here in SA, I feel it is not very well developed. I think that in countries with a lot of UK and other western experts in project management and contract management, you tend to have a different and more international perspective on how to deal with disputes. Over here, in SA, the people (local contractors and clients) have lots of conflicts and are conflict orientated. There is also a problem with the quality of contract documents, which are prepared by consultants here and cause a lot of problems and disputes. Of course, people always have cultural issues with each other, but many problems arise because these documents are not clear. What they say enables one party to interpret the documents one way and another party to interpret it a different way. Things get worse when the project goes forward and to help mitigate this, I think that SA needs to develop an international construction market, like the UAE. They need to be able to bring in people from outside, who know how to resolve these things and how to document things right. So, you will have fewer disputes, and when you have them, the people will know how to cope with the disputes. They will have the knowledge, not only on contract management but also on legal standards and legal principles and how arbitrators, lawyers and judges look at these disputes. This is a weakness here in SA.

Managers - With moderate levels of experience

The manager P8 revealed that sometimes international contractors are not aware of the Saudi Arabian culture and local contractors do not differentiate between the culture of projects in the public sector and private sector. Both issues are a problem, as there are important differences between the cultures in the two sectors of the Saudi construction industry.

P8: In SA, most contractors, especially international contractors, are not aware of the culture in the construction industry. Whereas, local contractors do not differentiate between the culture of the private sector and the public sector. These two cultures are totally different in terms of contract documents and the payment process, so contractors should be aware of that before engaging in any projects. There is no contract standard in the construction here in SA, for example, the “General Contract of Works” that is produced by the Ministry of Finance for any public sector project and is the kind of contract that gives the client most of the advantages and puts most of the risk on the contractor. This type of contract cannot be changed. Therefore, most contractors prefer to be a subcontractor or support the supplying of materials rather than be a Main Contractor. The culture of change orders and payment processes shall need to be changed too.

Managers - With low levels of experience

P7 echoed the views of the lawyers, stating that the good faith “Arab” culture dominates the industry, leading to many verbal agreements. However, that culture is being corrupted by disputes. He also echoed P8’s view that small contractors are less likely to understand the culture, compared to larger contractors.

P7: There is no clarity in contracts, and the Arab culture dominates the construction culture. As such, the verbal agreement is not written into a contract. The local culture shows that the client considers the contractor is not with good faith and is corrupted, looking only for his profit. The big contractors have a good reputation for understanding the culture that is in contrast to the small contractors (who do not). First, the local market culture needs to be studied and the communication culture with workers, especially workers that do not speak either English or Arabic.

The manager P13 provided a very extensive answer. He said that there is a culture of lack of work details in some of the public sectors. The scope of work is not well explained. He added that they use a different type of contracts in the same project; maintenance contract converted to construction one, for example. There is a culture of the contractor that is looking for profit only without take cautions thinking for the risks. There is a lack of communication and delay in payment, especially from public clients because they depend on the government to fund the project.

P13: I work mainly in the public sector, I will give you an example of a case. The client decided to move the site, from one city to another, Makkah to Jeddah. The contractor started the project and hired the manpower. Later, the contractor makes a complaint to the Board of Grievance, and the engineering council appoints arbitrators. I was the head arbitrator for this case, on the engineering side. We evaluated the work done in Makkah and the time lost as well; in the end, the contractor was compensated 40% of the price he was claiming, he lost.

The work environment in some government sectors lead to disputes; for example, when the project is called for tender, the job is not well explained. The concept is unclear, and there is no detailed design. They (the clients) only fill the bill of quantities approximately, trying to specify that the construction works may be within these quantities. The problem with the contractor happens during the construction, as he has no idea what exactly he should do. The contract is a maintenance one, in the beginning, then converted to construction one. They (the clients) have funds, and they want to rush into doing some projects, without planning ahead. They (the clients) thought by doing that; they could complete more projects with their funds. In fact, the contractors are not aware, and they are signing a General Works Contract. So, when the contractor begins to execute the work, the client begins to lead him astray, so the contractor is confused. The scope of work, in this case, is always changing, resulting in change orders from the contractor accordingly, and here is the spark of disputes.

In the beginning, the contractor just wants profit without considering the risk. Then he discovers the reality of how the scope is changed frequently by the client, who is mainly from the public sector. On the other hand, some public clients are professional

and well organised, and they have design details in place. Case1: We have the General Works Contract for public projects, and the contractor should follow what the client says. However, the client provides the contractor with only an approximate bill of quantities, without a clear scope of work, and when the project is delayed, and material prices increase, it is the contractor's responsibility. The pressure is on the contractor, and so disputes arise. The contractor is obliged to obey the client's instruction to complete the project, no matter what the consequences are. Changes in scope are not considered, and the contractor is not paid based on these continuous changes.

Some disputes refer to aspects outside the signed contract. Problems happen due to a lack of communication between the contractor and the client. In the public sector, they [the clients] often communicate verbally, which leads to disputes later. Some public clients are not well organised, because they depend on the General Works Contract, which has a lack of detail. The General Works Contract is creating a big mess on projects, because of its deficiency and its lack of proper procedures to manage the construction phase. There is also a shortage of manpower, especially on mega projects, and this leads to poor control of these projects. Case2: Other public clients are well organised, and the change order system has a clear path and procedure to follow. The problem is that the client wants materials of high quality, but when the contractor offered the bid, he priced for material with lower quality, to save some cost. In governmental ministries, there is a problem with the bill of quantities. They do not give it enough detail and do not name the materials they wanted before the projects start. Then problems exist between the client and the contractor until they reach a point where both understand what the other party wants exactly.

Delay in payment is another problem in disputes because the public client depends on the government to fund his project. Therefore, the contractor adopts a strategy during the tendering process, putting in a high price to cover a contingency plan for him (against the risk of delayed payment). He knows that he will need to depend on himself to finance the project, especially in the beginning, because the client will only pay him once or twice in the year. Regardless of the 10 or 15% of the contract price

he takes at the beginning of the construction mobilisation. But practically, this percentage is not enough for the contractor to proceed, and that is why he stops working or reduces the manpower. In these days, we have a shortage of contractors who can survive and continue working for long periods with of lack of funding. Added to that materials prices are rising.

We do have disputes between the contractor and the subcontractors who work under him and the different culture between them affects the project's progress.

Managers - with unspecified level of experience

The manager P9 focused on the lack of regulations in construction in SA. He also added that the culture needs collaboration to share the risk in the construction and to make success together. Manager P16 talked about the culture of his international organisation which has projects in Saudi Arabia. They produce the contract documents, which has good details in dispute resolutions, in Dubai to suit the Saudi construction market.

P9: The main issue here in SA is a lack of regulation, and it has been obvious for a long time. The government is trying to put regulations in place for the construction industry. There is regulation, but let us say it is 60- 70 years old. It has never been improved or even practised, as per international standards. For example, for us as engineering and project management consultants, all our contracts with the governmental sector are not as per the FIDIC standard. It is always the General Works Contract (issued by the Ministry of Finance). That puts all responsibilities and liabilities on the second party, either the contractor or the consultant, and I repeat again, it is not as per FIDIC or other international standards. The owner's obligation in this type of contract is the normal payment system only, and I believe this is unfair. There should be more collaboration, as well as the sharing of risks and responsibilities. The new culture in construction should depend on collaboration management. All parties should collaborate to fulfil the needs of the project. Part of the collaboration, as I said, is sharing the risks, obligation and responsibilities. The success of the project cannot be achieved with a magic stick, by the contractor, as the owner always believes. This is one of the main issues. The market still has a lack of regulation; more is needed to regulate the construction industry well. Maybe the governmental sector is getting more mature with regard to collaboration, as some

international companies have developed the know-how, and they transferred their knowledge into this sector of the industry. While in the private sector, it will take them much time, as they are still far behind. I believe that the private sector will not get the maturity it needs until the public sector gets it, where, to be honest, it is still an issue.

P16 commented on the Saudi construction culture by saying, the large local contractors do not have enough knowledge about the arbitration and how to prepare the documents. They will hire external consultants to handle the arbitration because they are not aware of the process.

P16: Throughout my 11 years of working in SA, our conditions of contracts have been based, to a certain extent on FIDIC, but modified to suit the SA market. It is mainly written in Dubai, and dispute resolution clauses are well defined. In the beginning, it defines what constitutes a dispute. First, we try to resolve it at director level, between the parties, and if unsuccessful, then we go to arbitration. If arbitration does not help, it will go to the court. Recently, in the last 4 projects, we took the arbitration clauses out. It is a costly process, and it comes back to culture. From our side, we guarantee to finish the project with or without the contractor. The contractor is usually the one who initiated the court process by raising a complaint. If the contractor abandons the work or goes bankrupt, then we may get a court order [to take over the project]. In the local culture now, unfortunately, a lot of large contractors know of the arbitration system, but they are not experienced in the process itself. They do not know how to prepare documents for the arbitrators and what is required. There is a lack of good knowledge about arbitration here in SA. Across the border, in Dubai, they know the details very well. Here, if they are pushed into a corner, 90% of contractors will hire external consultants to handle everything, from A to Z. I am talking about big local Saudi contractors.

Consultant - With high levels of experience

Consultant P1 confirmed that the relationship is everything in Saudi Arabian culture. Therefore, this relationship affects the contractual agreement and the business too. He considered that some organisational culture is clan culture (he mainly talks about the culture he has been involved with).

P1: I agree with your initial outlook, that there is a link with culture. I am not familiar with any research done concerning culture and construction claims. I have researched the construction industry in SA for 10 years, and I cannot think of any research has been done in that area. This is interesting; because I am Western culturally (from the USA), and I have a strong construction background, both internationally and domestically in the USA, even here in SA. So, it is going to be a different perspective from my eyes to look into the culture of SA. I have found the SA culture fascinating and even more so when it is related to construction. I think that culture does affect performance. So, ask me the question again. I have observed that relationships are everything to Saudis, it could just be the Arab culture, and I am not sure. Because we have Lebanese here; I am going to say in general, to Saudis the relationship is everything and so this to me, is rooted in the culture. Now, as we go to another question, the way I see it affecting the culture and a lead to part B the clan type culture. Saudis are very family-oriented, and that means it goes beyond just social. I think they bring that into professional life and the contracting life. Of course, dispute and arbitration stem from contract and interpretations of contracts. I think it also affects the performance of the contract, which indeed affects the disputes. I think it could be linked, for example to two tribes (two families). In history, they have been rivals, competing for land, competing for whatever and that continues today. Even though, not at a big magnitude, but in their contractual dealings.

Consultant - With moderate levels of experience

Consultant P15 emphasised that the local construction industry needs further study about the contracts. He gave an example about the public contracts that do not include the contractor support clauses. Delay in payment is a common culture, especially in public contracts.

P15: We should focus on the contract. Most contracts and how they are generated, need further studies to be understood. If the contract is in the public sector, it will be a modified FIDIC form and, unfortunately, the parts that support the contractor are deleted. Consequently, it will be a non-compliant contract. Secondly, we need to give more attention to planning, as we do not [currently] consider the planning stage enough. Planning is crucial, but it is ignored at the same time. Third thing, the contractors complain about delays in payment, and that leads to more disputes. Most contractor claims come from the delay in payment. Last thing, the management of cash flow [needs to be studied], as most contractors do not manage it properly.

Consultant - With low levels of experience

P2 and P3 have not been involved with local contractors, but they provided an example of how the local and international contractor is making claims against Aramco. Some small local contractors do not want to lose their advantages of working with Aramco. Therefore, they do more than what is required.

P3: Out of my 5 years' experience, for 2 years, I was involved in the internal control, and reporting process. I have not been involved in follow up and direct interactions with contractors. That is because the contract advisor role is related to mainly tracking and follow up the division performance regarding contracting procedures and policies. So, I am not sure if I am going to help to answer specific questions regarding the cultural aspect of construction projects.

P2: I do not get involved in dealing face to face with the contractor. People are putting claims in because they know how Aramco works. They are challenging Aramco by these claims. They are getting more confident to challenge Aramco for their entitlement, but that can vary from contractor to contractor. The smaller contractors do not want to upset Aramco; they probably do more than they are asked to do. When it comes to multinational contractors, they have got much support, and they have administration teams to challenge Aramco. There are ways to avoid claims and follow the procedures put in place to avoid claims and arbitration.

To summarise, the main finding from Q2A is that the “good faith” culture is very strong in Saudi Arabia, much stronger than in several other Gulf States with similar “Arab” cultures. It is mentioned in the literature review that contract documents do not adequately cater to problems when they arise Jenkins & Stebbings (2006). Therefore, this thesis investigated this problem and P6 for example mentioned the good faith principle which is related to the poor contract document. P 10 also supported the existence of this problem (poor contract document) in Saudi Arabia.

That culture results in many construction contracts being entered into with only verbal agreements and others with poorly written contract documents. When written contracts are used, there was a suggestion that they are not given an adequate expert overview and may simply be edited versions of contracts from previous projects. The high levels of disputes in the industry are undermining the good faith principle, creating mistrust and a lack of collaboration between parties. Larger local companies have a better understanding of the culture, but small companies and international companies have a poor understanding. As such, there is a growing awareness of the need to raise levels of understanding about the construction culture in Saudi Arabia, but also of how a deeper understanding of culture can have positive benefits for the industry. In that regard, engaging experts from outside Saudi Arabia to advise and to help administer construction contracts was suggested as a method that some parties are using to change the current culture.

6.3.2 (Q2B): Lessons from the culture about the causes of disputes

In Q2b, the author aimed to learn lessons about links between different organisational cultures and the causes of disputes.

Arbitrator - With high level of experience

The arbitrator P17 stated that the highly international nature of the construction industry in Saudi Arabia means that cultures differ from region to region and from one company to another. The four organisational culture mentioned in the literature was asked to identify the construction culture in SA (Rameezdeen & Gunarathna, 2012)

P17: The main problem in SA is that you cannot specify a certain culture in each area of the country. We have engineers and labourers from around the world, some of them are Arabs, and some are not. Each group represents its own culture. When

arguments happen in the field, a dispute will arise due to the different understandings from different cultures. I would also say that a common engineering language is missing when it comes to technical terminologies.

Lawyers - With high levels of experience

The lawyer P6 considered that a combination of a bureaucratic culture and a market culture in the Saudi construction industry makes transparency in the sector very low. P10 was also somewhat negative, stating that a market culture mixed with a hierarchical culture is common amongst the organisations in Saudi Arabia.

P6: Unfortunately, the level of transparency is very low. The profit thinking is the dominant culture here, even over the quality of the work. Added to that, the public sector is very bureaucratic.

P10: The "hierarchical culture" is dominant in the organisations generally. With a Board of Directors, a CEO and Division Heads. 70 to 80 % of companies here in SA are structured like this. The remaining percentage includes the other three cultures. The "market culture" is also here and I am personally surprised this culture is available; therefore, some companies focus on how to make profit only without focusing on the service they provide. They literally do not offer anything, but instead, they delegate the work to someone else without doing anything themselves. So, the "hierarchical culture" is dominant.

The lawyer P12 was more optimistic, stating that a good managerial culture helps to deal with disputes easily. Whereas P14 was reluctant to identify any single culture as being dominant in an industry with such a wide diversity of organisational types.

P12: Managerial culture is well organised, with good project management and good monitoring processes. If that is all in place, then dealing with disputes will be easy....

P14: I believe that the organisations we have here (in SA) that control the relationships in the construction industry, either in relation to standardisation, licensing and involvement, can be placed into two main categories: 1) Public organisations 2) Non-Public organisations. Public organisations could also be semi-governmental. Purely public organisations, like city councils and municipalities, give approvals and have a role in making secondary legislation. Also, some public

organisations have an executive role or are responsible for codes of practice and standards, such as the Saudi Engineers Council. We do have academic engineering departments in universities, and there are consultant offices in universities that contribute to dispute resolution. They mainly serve the private sector. We also have some organisations that participate in the constructions industry, like the chambers of commerce, which have contracts departments. Non-public organisations include contractors and engineering consultants. Real estate organisations, like the Ministry of Housing, have a megaproject that is implementing with the help of international contractors. We also have oil companies, such as Saudi ARAMCO, that have a big impact on organisational cultures.

Lawyers - With moderate levels of experience

The lawyer P11 agreed with P6, stating that the market and bureaucratic culture are dominant in Saudi Arabia. While P4 thought a hierarchy culture dominated the current industry, adding that a mix of all 4 organisational cultures would create a good environment in which to operate.

P11: The different organisation cultures do not contradict with each other, I believe, but I think the “market culture” and the “bureaucratic culture” are dominant (in SA).

P4: I read this question, and I feel that here it is the “hierarchy culture” that dominates. But what I also feel is that what is needed is a mix of these 4 cultures. If we have a mix of these cultures, we could have a good environment for contractors and contracts in the construction industry. Also, people on the ground (those who are working) need to know details of the contracts, not only the lawyers and the arbitrators. They [the workers] are the ones who are executing the contracts. So, in summary, I think we have a hierarchal system, where the boss makes all the decisions form his office, and other people (the workers) are supposed to execute it, but they do not know what they are doing, and there is no proper communication (of contractual obligations).

Lawyers - With low levels of experience

The lawyer P18 stated that it is different from one organisation to another, and it does not depend on the market.

P18: I think you are going to find different organisational cultures in SA. For example, if I talk to you about where I am working, we have a collective and collaborative way of working. We also have a hierarchy that is we have CEO and senior directors but when we go down levels and how the employees communicate, we have openness. We also have regular meetings with different departments (finance, business developments and sales). We sit together and discuss issues that affect the company. So, it depends on the organisation, more than the market, and it is not about SA, but about what the company culture is and what the company is trying to promote.

Managers - With moderate to low levels of experience

P8, P7 and P13 all stated that the market culture dominates contractor organisations. They also considered that the public and private sectors have quite different cultures.

P8: There is a difference in the organisational culture of the public and private sectors. The culture in the public sector is about transferring all the responsibility onto the consultant, to follow up and lead the project with the contractor. Recently, this culture has started to change. Most of the local contractors have adopted the “market culture” as the main organisational culture, and sometimes they compromise quality. We have a serious issue with clients in general; they do not provide enough details about the projects for tendering offers. The clients only give generic information without specifying what they want exactly. They let the contractor include the details in their bids. Then, during the execution, disputes arise when the client does not agree on some aspect of the contractor’s work.

P7: The market culture is the dominant one. The private sector is looking for profit only, while clients in the public sector are only looking for the lowest price to perform the job. We do not have a clan culture.

P13: The public client, unfortunately, believes the contractor is dishonest “he just wanted to make profits and steal my money”...

Managers - with unspecified level of experience

P9 stated that is a mix of hierarchy and adhocracy culture, which often manifests itself in a lack of forwarding planning.

P9: It is more of a hierarchy and adhocracy culture. I do not think they plan ahead much, so I think the hierarchy style dominates the construction culture here in SA. It also plays a role in preventing the industry from maturing very quickly. If I understand the culture very well, this is the culture that dominates the industry.

The manager P16 stated it is a mix of “market” and “hierarchy culture”, but added that every organisation can have a very different culture and that culture can change over time.

P16: “Clan culture”, no way. I would say a mix of “market” and “hierarchy culture”. I have dealt with different contractors, and they have completely different cultures. For example, one contractor that was established in Dubai came into the Saudi market and changed his culture...

Consultant - With high levels of experience

The consultants P1 and P15 considered that there was a variety of cultures operating in the construction industry of Saudi Arabia.

P1: I do not know, but what fascinates me is the complexity [of the culture]. The society is very complicated. Again, looking at it from a western perspective, I do not fully understand the culture, and I have lived here for 10 years. I talk a lot to Saudis asked many questions, but I still do not understand it. It is still fascinating.

P15: Saudi Aramco and SABIC have transparency and are well organised. On the other hand, most public organisations do not have transparency, and they are not organised, with decisions coming from Riyadh (centralised). Most contractors are classified as “market culture”, a few of them may be considered well organised and transparent (Clan culture)

In summary, Q2B revealed quite a wide range of views and suggestions that cultures in the construction industry of Saudi Arabia are quite diverse. Perhaps one common theme was that private sector organisations adopted a “market culture” and public sector organisations adopted a “bureaucratic culture”. Several interviews suggested that Saudi Arabian construction companies had quite a “hierarchy culture” and it was felt that having a mixture of all culture types was good for the industry. However, certain culture combinations were not good, especially those that created mistrust and a lack of transparency. This diversity

depicts what the literature revealed as Rameezdeen & Gunarathna (2012) identified in their research.

6.3.3 (Q2C): Legacy of ARAMCO case

With Q2C, the author was looking for some very specific data about how the 1950s ARAMCO case influenced the culture on construction projects in Saudi Arabia. ARAMCO case was explained in the literature (Schwebel, 2010). Hence the author examined, did it have an impact on the arbitrational culture in SA?

Arbitrator - With high level of experience

The arbitrator P17 stated that ARAMCO case was an injustice for the Saudi government because the contract said that if a dispute happened then, Islamic Law was to act as the governing law. Moreover, he considered that the case has nothing to do with the first arbitration law, which was issued in 1983; it was a stand-alone case.

P17: The system said that arbitration was allowed in governmental projects if the Prime Minister (the King of Saudi Arabia) approved it. What happened in the Saudi Aramco case was an injustice for the Saudi Government, because the contract said that in the case of a dispute, the governing law is Sharia law and that did not happen. They chose international arbitrators who do not understand the Sharia law and they stated that there is nothing in Sharia law that can help resolve disputes in the oil and gas industry. They decided to apply a law related to the oil industry. What happened is totally against what the contract stated, but because of their power and authority, they ignored what is written in the contract. But generally, this case has nothing to do with the first arbitration law issued in 1983, especially in relation to commercial arbitration.

Lawyers - With high levels of experience

The lawyer P6 also indicated that the ARAMCO case did not have any impact on the arbitration law. But he did think that making the failure of the law to make arbitration a requirement on public contracts had a negative impact, as the case is directed to the courts that are already very busy.

P6: In the 1950s, Aramco case did not have any impact as the first arbitration law issued 1983....Unfortunately making arbitration forbidden in governmental projects has a negative impact, as cases are directed to the courts, which are not dealing with massive numbers of cases or in a proper way. International contractors accept the high risk by offering a high price in the bidding process.

Although he did not mention the ARAMCO case directly, P10 thought that the arbitration process used since the time of the ARAMCO case has now been abandoned. He also considered that the government had actively promoted the arbitration culture, but refused to use it itself. That position has given rise to a lot of confusion and misunderstanding about the use of arbitration in Saudi Arabia.

P10: The arbitration process used since that time, up until 7 years ago, has now been abandoned. It is because the culture has changed. The government was the first entity who spread the arbitration culture. The government refused arbitration procedures in its projects completely. Therefore, any governmental entity cannot deal with arbitration law. This is why some organisations, who intend to invest in SA, will not accept any procedures that the Saudi government will not accept. As I said, the arbitration process was abandoned entirely and returned to practice after 2012. The old arbitration law (from 1983) has returned as well, but with consideration about the arbitration clause, which is not mandatory in contracts. In the last 4 years I would say that a revolution has occurred in contract and dispute resolution. Disputants now do not consider arbitration as the first option to resolve their disputes. So, there is a decline in arbitration practice. The main reason is the lack of an arbitration culture, as the arbitration clause has become optional in contracts. I would add another reason, which is the misunderstanding of the arbitration process.

The lawyer P12 does not have an answer to this question.

P12: I do not know

The lawyer P5 also dismissed any link between the ARAMCO case and the development of arbitration in Saudi Arabia. He did agree that the arbitration tribunal in the case looked at Saudi Arabian law and decided it was not sufficient to deal with the dispute, which he

thought was a mistake. However, he agreed that the arbitrator has the authority to allow the local law to be applied or not.

P5: The issue with the ARAMCO case is that it was not about the arbitration law in SA. The arbitration law is a “procedural law”, so the issue was to determine if there was any “substantive law” that could help resolve disputes in the construction industry at that time in SA. When the arbitration tribunal reviewed the case, they found that Islamic law applied in SA and the ARAMCO case defined the lease contract in terms related to Islamic law. But here [in SA] there is a difference between the Procedural laws and the substantive laws. In fact, the arbitration award was very extreme in terms of judging SA and its local Islamic law as unmodern and unable to resolve complicated disputes in the construction industry. Moreover, western countries looked at SA at that time as an uncivilised country. There is a rule in the arbitration process, which states that in cases where there is no agreement on the substantive law to be applied, the law that is most relevant to the contract and its place of execution will be applied. Therefore, the Saudi law was most relevant to the contract [and should have been applied]. However, the arbitrator has the authority to allow the local law to be applied or not.

While the lawyer P14 did not comment on the case itself, he commented on the impact the ARAMCO case had on the local construction culture in terms of arbitration and litigation. He divided the industry into those that believed in arbitration as the best route to resolve disputes and those that believed litigation was the better route. The problem with the ARAMCO case was that it did not serve as a good case study because the case used its unique process to deal with the disputes, it cannot easily be applied more generally.

P14: I do not know the details of this case, but generally the culture of dispute resolution adopted in Saudi ARAMCO can influence and enhance the culture in the commercial and governmental field more widely. In relation to whether the disputants will take the arbitration path or the litigation one, we do have two different schools of thought. One school prefers the litigating approach, while the other prefers arbitration. The first group follow Saudi ARAMCO and believe in their way to resolve disputes. This is how Saudi ARAMCO has an impact on the construction industry culture. The latter school, they want to follow the Saudi

ARAMCO mechanism for resolving disputes, but Saudi ARAMCO has its own individual procedures for arbitration. Most contracts that Saudi ARAMCO sign has an arbitration clause in them. Besides that, Saudi ARAMCO chooses its contractors carefully and checks that they are qualified enough to perform the project. That is why the number of disputes is minimised. Being a contractor with Saudi ARAMCO gives a company a high level of credibility, make it easier to create other deals outside Saudi ARAMCO, but they deal with the other clients differently.

Lawyers - With moderate levels of experience

P11 did not consider that the case had any impact on the construction culture.

P11: It does not have any impact, as it is a standalone case.

Lawyers - With low levels of experience

P18 admitted to not being familiar with the case and commented instead on the general culture in the industry. Applying an international perspective to the Sharia Law in Saudi Arabia, he considered that it had strengths but also many weaknesses when it came to resolving construction disputes. In particular, he considered the culture in Saudi Arabia that prevents excessive claims in disputes to be a positive strength in the system. However, not having specialised courts to hear construction cases was a distinctive weakness in the current system.

P18: I am not familiar with this case. But I will tell you that I do not believe that Sharia law is backward. People make it look like it is. Because I lived in Canada for a long time, I can say that different laws take time to develop. Our Sharia law, just like other laws, like the common law in UK and civil law in Canada, all these laws took time to develop. Our culture and our religion is imposed on the law and affects the way the laws and legal concepts are interpreted. I believe we have good concepts in our law, and we need to look at the strengths of our principles. Especially the main principles of Sharia law. Let us take dispute resolution in construction, where we have something called liquidated damages. In Europe and other countries, if there is a liquidated damage clause, they will apply damage to cases, even though they may not be close to the level of actual loss. They will say no, this was the agreement between the parties. However, in our Sharia law in this kind of situation, if one party

suffered, because of the other party, the damages will be at a level close to what actually occurred. The main principle in our Sharia law is very good that you cannot claim ridiculous amounts of money without justifying why you are entitled to these damages. The Principles in Sharia law are there, but sometimes we don't have the right people to interpret them for each case. This is why some judges here in Saudi Arabia look at a construction case and cannot give their decision, because we do not have specialised judges. For example, in the UK they have special judges, in TESCA for example (the Technology and Construction Solicitors Association) it is a special legal system. What we can do in our country, if we have specialised legal professional judges with technical backgrounds, they will understand the way to argue and come up with a fair conclusion to disputes.

Managers - With moderate levels of experience

The first construction manager, P8, was unfamiliar with the ARAMCO case and instead commented on general cultural issues. He pointed out the use of international arbitration centres and external experts to the advice of construction disputes, because of the poor arbitration culture in Saudi Arabia.

P8: Most disputes are transferred to the arbitration centre in Dubai or to the ICC in Paris. Most international contractors avoid the local arbitration process, due to delays in its process. They delegate the dispute to a third party, who works as a legal consultant to deal with the dispute. This consultant will be responsible for evaluating the case and providing feedback to the contractor.

Managers - With low levels of experience

P7 did not comment, and P13 was unfamiliar with the ARAMCO case. However, P13 described the culture in Saudi Arabia, whereby contractors will wait for the return of their “cheque of warranty” before launching a dispute with the client.

P7: I do not have any idea about Aramco case.

P13: I do not have good knowledge about it. But in the General Works Contract, if the project is finished and the contractor has disputes with the client, he will complain to the client internally. They will give back to the contractor the “cheque of warranty”, and then the contractor will go to the Board of Grievances (court)...

Managers - with unspecified level of experience

P16's answer was a bit confusing, but he seemed to think that there was no link between the ARAMCO case and local laws.

P16: To my understanding, arbitration does not touch the local laws (sharia or not sharia). The arbitration process mainly looks at the technical issues in the dispute. That is why sometimes if the dispute goes to the court, the judge has no idea [about the technical issue] and he will transfer the case to arbitration. As I said, arbitration has nothing to do with local laws, especially in SA. Sharia law applies when the case goes to the court.

Consultant - With high levels of experience

P1 was aware of the ARAMCO case and considered it a landmark event. He linked the case to the United Nations New York Convention in 1958 [Convention on the Recognition and Enforcement of Foreign Arbitral Awards]. He considered that, as Saudi Arabia was a contributor to the convention, the country had played a significant role in changing the international culture on the promotion and practice of arbitration.

P1: You mean the ARAMCO arbitration case, and how did it affect claims today? I think directly, but perhaps it does not. It was a landmark case in 1958, and I also think what came out of that is the United Nation New York Convention in 1958 (Convention on the Recognition and Enforcement of Foreign Arbitral Awards). Saudi Arabia is a signatory to that as well as the USA and many other different countries I don't remember how many. It is still in effect, and so I believe it leads to this convention about arbitration and arbitral awards and so on. I think it is very positive because now it brings order. Are you asking about a number of claims? I do not think it directly affected that. I think the convention has brought order to how you act. You know, you have a claimant and a respondent. Then, when the decision is made, that decision would be forcible in this signatory country, and I think this is very important.

Consultant - With moderate levels of experience

P15 did not see any link between ARAMCO case and the first arbitration law. There is 30 years gap.

P15: It has nothing to do with the arbitration in the Kingdom, as this case happened in 1950s, and the first arbitration law was issued in 1983. There is a big-time gap between them.

To summarise this question, many of the participants were either unaware of the ARAMCO case or considered that it was not related to the first arbitration law, which was issued in 1983. However, the literature revealed that the arbitrational culture had been affected to restrict government bodies' not being competent to enter into the arbitration agreement (Alrajaan, 2017). The suggestion was that it was a stand-alone case, and the 30 years gap between the two events made any link to the case and a change in the culture of the construction industry quite tenuous. However, the suggestion of a link between the case and the United Nations New York Convention in 1958, was a powerful one and put Saudi Arabia and the ARAMCO case at the forefront of efforts that have changed the international culture in relation to the use of arbitration. That is a potentially powerful finding that would greatly enhance efforts further to change the culture in the Saudi Arabian construction industry.

6.3.4 (Q2D): Leadership links to culture

In question Q2D, the author aimed to investigate further links between leadership in organisations and the industry culture. The literature discussed various organisational leadership dimensions via GLOBE project (R. House et al., 2002). Therefore, these participants shared their views on the leadership dimension of the organisations in SA.

Arbitrator - With high level of experience

The arbitrator P17, stated that most of the organisations do not have legal departments to follow the legal work professionally. This kind of decisions should come from the top management of the organisation.

P17: We need to differentiate between 2 main things; the work itself is entirely different from the legal documents. Most organisations here do not have legal departments to follow the legal work professionally. One of the legal department tasks is to monitor disputes from the beginning. To start the communication and

documentation process. If we take the example of international companies, they pay attention to these details, and they report and document every single dispute and its journey. They sometimes record the weather condition daily as it might delay the project even for a few weeks.

Lawyers - With moderate levels of experience

The lawyer P4 picked the assertiveness dimension because senior managers in Saudi Arabia often act aggressively.

P4: I pick “assertiveness” (as reflecting the organisational culture in the construction industry of SA). Because, of the disputes I have worked on, most of them relate to the top management acting aggressively. One example is a contract between companies that wanted to build a stadium. The contractor had mobilised on site, but then one day the manager (of the client company) passed by a signboard for the project that didn’t reflect the name of his company to his liking, so he caused a dispute. This is why the contract failed, and it was stupid. Why a \$300 million project came to a stop, the dispute could have been solved quickly, right in the beginning. So, it (the culture of the construction industry in SA) is “assertiveness” and aggressive.

Lawyers - With low levels of experience

The lawyer P18 revealed that is the top management is frequently changing, so there I no consistency in the leadership.

P18: I think what I see here in Saudi Arabia, it is a little bit of everything. Regarding leadership, we have to talk about the consistency of leadership. Say we have a situation where the top management is frequently changing. Compare that to if you have a leader who has been in the position for a long time. Then we can notice the impact. You can ask, what is the affecting dimension? In some companies, it is hard to say.

Managers - with unspecified level of experience

Manager P16 picked the uncertainty avoidance dimension due to the lack of strategic thinking.

P16: I will pick the combination. No 1 (Uncertainty avoidance) to some extent. Organisations in the construction industry here do not have good strategic thinking. Unfortunately, the least valued resource in the big contractors of SA is the human employees.

Consultant - With high levels of experience

The consultant P1 agrees with manager P16 on the lack of planning. P1 picked power distance “collectivism 2” strongly and might be “human orientation”. While consultant P15 said the leadership has an impact on the culture but he didn’t pick a certain dimension.

P1: For the leadership of organisations, this Arabian culture is very patriarchal. It is dominated by men. To my knowledge, there are no women in constructing industry sites. Times are changing here, and there is a shift. There are lots of women who graduated as engineers, so I think the role will change. Right now, the construction industry is still dominated by men. I think it is a “power distance”. Not so much as some Eastern countries, but “assertiveness” is pretty strong. Definitely not “future-oriented”. What I observe and what I see is that people do not plan ahead. They are reactive more than proactive. They do not have 5 or 10 years plans, and even when they are executing a project, they do not seem to be forward-looking. “Human orientation”, maybe and “Collectivism 2” definitely, this is very strong.

P15: It has an impact for sure, and it depends on the individual leader. Future orientation.

Although responses to Q2D were quite limited, some interesting results were acquired. Perhaps the main finding was that more interviewees were not very familiar with the different organisational culture concepts. A few were willing to hazard a guess at the dominant cultural forms in Saudi Arabian organisations, but those judgements were quite limited. As such, the author concluded that training and awareness-raising in the nature of organisational culture and how that can impact on the successful outcomes of the project was needed in Saudi Arabia.

Taken together, the analysis of the four questions in this section provides the final insights to be applied to the scenario at the start of this chapter. From Q2A, the suggestion is that entering into the contract, the parties probably started in the spirit of “good faith”, as per the culture and custom in Saudi Arabia. But that good faith is being undermined by the frequency and severity of disputes in the industry. It is not clear if the parties were aware of the need to change the culture in the industry, but the analysis in this section suggests that they could well be becoming aware of that need. Again, the actual culture of the organisations involved in the dispute was not clear, but Q2B would suggest that some organisational cultures would make the parties better able to learn the lessons from the dispute whereas others culture types would hinder that process. From Q2C the author suggests that if parties were aware of the role that Saudi Arabia had played, via the ARAMCO case, in changing the international culture relating to the use of arbitration, then the parties might be much more willing to consider implementing further cultural changes within their organisations. Finally, Q2D revealed that before any process of organisation culture change was enacted the parties would need to undergo training to learn about organisational culture types, their advantages and disadvantages.

6.4 Conclusion of the main findings and contribution to understanding of culture and its impact on the Saudi Arabian construction industry

This chapter explored and analysed features of the construction industry culture in Saudi Arabia. The hypothesis that started the analysis was that the culture of the Saudi Arabian construction industry was not well studied and that its influence on the evolution of disputes is even less well understood. The author considered that there were a growing awareness and concern that the current culture is having a detrimental effect on levels of trust between parties to construction contracts in Saudi Arabia and there was an urgent need to verify if this concern is valid or not.

The analysis commenced with the author outlining his positionality, as a slightly distanced cultural “insider”. That position enabled him to draw deep insights from the data collected and analysed in this study. The author’s blend of local and international education also helped him to amass a balanced body of knowledge, critical for the objective analysis of

subjective material collected by the PhD research. The author's personal experience, acting as an intermediary between a client and a contractor and trying to help resolve a dispute between them, helped him to reveal the difficulty that people in that position face. On the one hand, trying to be independent and objective, but on the other hand, bound by an obligation to help one party defend a claim by another. In this analysis, that experience was used to illustrate how the loss of trust and "good faith" between the parties in a dispute can arise. No contract form or technical report can prevent that problem arising; it is a cultural issue. If the culture of mutual cooperation and collaboration to meet project goals had been maintained, it is likely that disputes would not develop.

The structured research activities in years 1 and 2 of this PhD programme helped the author understand how cultures on and around construction projects can influence the prevalence and severity of disputes. He was able to develop ideas about how parties could work collaboratively towards project success, but he was also able to reveal challenges that any effort to change an industry's culture could face. He assessed that organisational leadership and programme governance had an important effect on the creation of cultures. Finally, one of the most important outcomes of the pilot study was that cultures could be highly resistant to change. He assessed that the roots of disputes could well lie in deep-seated cultural beliefs held by the disputing parties. That led each to be distrustful of the motives behind the actions of the other parties. If at the start of a project, the parties engaged in positive efforts to understand each other's culture and senior management collaborated to define a clear set of shared objectives for the project, then the dispute may not arise. But, the author recognised that such efforts would likely encounter resistance, and would have only succeeded if the leadership of all parties shared a belief in the value of efforts build a better cultural understanding between them.

The survey conducted as part of this thesis revealed positive signs that some employers in Saudi Arabia are beginning to recognise the importance of cultural awareness and have started to provide culture training for their employees. However, when working to resolve disputes in the country, cultural awareness has yet to make an impact on the level of cooperation between the parties when working to resolve disputes. Drawing together lessons from elements of the survey analysed in chapters 4 and 5, the author revealed unique features of the culture in the construction industry of Saudi Arabia that both help

and hinder the way that disputes arise and are resolved in the country. As a basis to effect change, the arbitration process was found to have a number of positive cultural features and could provide an effective base from which to promote positive culture change in the construction industry of Saudi Arabia. The lessons learned suggested that parties to construction contracts in Saudi Arabia were becoming sufficiently aware of the arbitration process to include clauses in their contract that enabled them to use the process. That in itself may be viewed as a sign of positive cultural change, but their behaviour in disputes reveals they are often victims of the culture of poor cooperation that is significant in the Saudi construction industry. However, the growing experience of the positive features in the arbitration process may help parties understand how further cultural change may lead to beneficial impacts on the success of future projects. But those benefits will only be realised if the parties actively engage in programmes to raise awareness and understanding about culture in their own organisations.

Taken together, the analysis of the four interview questions provided the final insights to be applied to the understanding of culture in this chapter. From Q2A, the author suggested that when entering into a contract, Saudi Arabian parties probably started in the spirit of “good faith”, as per the culture and custom in Saudi Arabia. But that good faith is being undermined by the frequency and severity of disputes in the industry. It is not clear if all parties are aware of the need to change the culture in the industry, but the analysis in this chapter suggests that there is a growing awareness of that need. The actual culture of the organisations involved in disputes is quite wide ranging, but Q2B revealed that some organisational cultures would make parties better able to learn the lessons from disputes whereas others cultural types would hinder that process. From Q2C the author proposed that if parties were aware of the role that Saudi Arabia had played, via the ARAMCO case, in changing the international culture relating to the use of arbitration, then parties might be much more willing to consider implementing further cultural changes within their organisations. Finally, Q2D revealed that before any process of organisation culture change was enacted, parties would need to undergo training to learn about organisational culture types, their advantages and disadvantages.

Chapter 7 - Validation and reliability of research findings

7.1 Introduction

In this chapter, the researcher will outline an activity undertaken to test the validity of findings from the research project. El-Diraby and O'Connor (2004) referred to the validation of research results as "the best available approximation to the truth or falsity of a proposition". They also caution that there is no single definitive confirmation of validity in the quest for truth. Several studies describe four categories of validity El-Diraby and O'Connor (2004) :

1. Statistical: used to prove the relation between variables via statistical methods.
2. Internal: relates to the concept of causes and relations within data variables and is used to observe the relationship between variables, which variable cause other variables.
3. Construct: used when the researcher wants to transfer the observed covariation into constructive theory.
4. External: relates to the generalizability of results for future purposes and is used to examine observed relationships in different settings.

Lucko and Rojas (2010) also mentioned other types of research validity, called face validity, content validity. Face validity focuses on the opinions of non-researchers. Content validity applies non-statistical methods to define the representation of the study to reality.

For this project, the author was interested in testing the results' external validity, using a focus group approach to test the face and content validity with a sample of experts in construction law and dispute resolution in Saudi Arabia.

Reliability is associated with consistency and repeating the data collection (Heale & Twycross, 2015; Lucko & Rojas, 2010). The aim of the validity and reliability as Ali & Yusof, (2011) declared, is to improve the research quality. The same authors described reliability as the ability to replicate findings. There are various types of reliability testing approaches; one of these is the test-retest approach and which is used to remeasure findings (Lucko & Rojas, 2010). The author in this thesis used this approach to improve the main findings of this research. The retest tool was a focus group – as described in the next section- similar to the

interview process. The author targeted to achieve the validity and reliability of his thesis's results. The full description of the focus group is illustrated in the next section.

7.2 Focus group analysis

The main object of the focus group was to discuss the research findings. The researcher approached the participants and shared the research findings with them. The diversity of the participants was also a target to cover the different findings of the research. Therefore, the researcher aimed to contact a lawyer, contract consultant, and academic person interested in the construction contract culture in Saudi Arabia. The researcher distributed the summary of the research aims and findings to the participants before the meeting to exploit the time for discussion and be fully aware of the topic.

The author distributed a copy of the thesis findings to the participants before the focus group meeting. The main findings are mentioned below:

- Summary of main findings of disputes in the Saudi Arabian Construction industry:

Data from Jeddah Chamber of Commerce and Industry JCCI revealed the following:

1. That overall, in 69% of arbitration cases, the claimant was the client.
2. The time delay was the most frequent cause of disputes (38.5% of cases), and that changes in scope and delays in payment were the next most frequent causes of disputes (23.1% in each case).
3. Finally, the JCCI data revealed that after the arbitration process, as many as 90-95% of all arbitration rulings are appealed.

Further insights were gained from the questionnaire survey.

1. The first insight was that in Saudi Arabia, an industry practitioner would need to have 10-14 years of industry experience, and also 6-8 years of dispute resolution experience before becoming sufficiently well versed in the dispute resolution process to engage with the Dispute Review Board (DRB).
2. An additional interpretation was that people who work in construction with little or no experience, support the view that disputes will be resolved amicably. However, as greater experience is gained, so that early optimism is diminished.
3. The main finding from the survey data was that, in rank order, the most common cause factors leading to disputes in Saudi Arabia are:

6. Time overrun
7. Lowest tender
8. Client change to the scope
9. Contractor led change
10. Late payment

The final insights and learning about disputes in the construction industry of Saudi Arabia was derived from the face to face interviews.

1. One finding that may be more significant in Saudi Arabia than in many other countries is the power that public clients in the country have to reject suppliers and sub-contractors proposed by the main contractor.
2. Another finding is that the range of contract forms available in Saudi Arabia is limited, and this creates a potential problem for construction projects with large supply chains. The limited range of contract forms available is a problem for contracts lower down the supply chain

- *Summary of main findings and contribution about the arbitration's role in resolving disputes:*

Important findings from the research in this thesis started with the analysis of the JCCI data.

1. The first quantifiable contribution is that the average length of time to complete an arbitration case via the JCCI was 7.5 months and that 90-95% of decisions were appealed. Despite the high appeal rate, the average length of the arbitration process from the first meeting until the award was judged to be a good level of efficiency when compared to the litigation process.

The survey data analysis revealed previously unreported strengths and weaknesses in the Saudi Arabian arbitration process.

1. The four-strong points about arbitration in Saudi Arabia were found to be (in rank order):
 - a) The arbitration process is transparent
 - b) The final award from the arbitration process is satisfactory
 - c) Cooperation between disputants involved in the arbitration is good

- d) Communication between parties in the arbitration process is effective
2. The two areas where the arbitration process is less strong are (in rank order):
 3. The arbitration process works smoothly
 4. I know how the arbitration process in Saudi Arabia works
 3. The arbitration clauses are only "sometimes" written into construction contracts in Saudi Arabia. As a consequence, the survey found that, despite having an arbitration law since 1983, the arbitration process in the country is still not very well understood. That said, this research confirmed that changes to the arbitration law in 2012 have had a small but positive impact on the practice of arbitration in Saudi Arabia.
 4. However, this research has revealed that the law itself is judged to fine and that issues affecting the efficiency and effectiveness of the process are largely down to the people involved in the process. In Saudi Arabia, the problem with the quality of the people led parties involved in larger projects to seek support for the settlement of disputes outside the country.
 5. Parties who were familiar with the arbitration process rated it as much more effective and efficient than the litigation process.

The interview analysis also revealed

1. A general agreement that the main purpose of the 2012 changes to the arbitration law in Saudi Arabia was to making the arbitration decisions binding, which was a significant change from the old law.
2. However, the new law did not change some of the underlying and disruptive culture associated with the arbitration process. Specifically, the culture surrounding the appointment of arbitrators and bias in the arbitration process was not addressed in the new law.
3. The result being that corrupting influences can still have an impact under the new law and undermine trust in the system.
4. The overall feeling amongst the interviewees was that the current arbitration law and its executive regulations are better than the previous law and are effective.

5. The new law has introduced some useful flexibility in the process to be followed and aligns well with the procedures used by the courts in Saudi Arabia, especially in relation to the use of external experts.
6. The author was able to define several proposals to enhance the arbitration system in Saudi Arabia. These include:
 - *Change the requirements in relation to the legal background of the arbitration tribunal chairperson, which is currently too restrictive.*
 - *Change the system used for appointing arbitrators, possibly by using an independent body and drawing from an approved and categorised list of qualified arbitrators.*
 - *Clarify rules regarding the setting and payment of fees for the arbitration process.*
 - *Improve guidance about what to do if one party refuses to cooperate and frustrates the arbitration process*
 - *Allow views from a broad range of participants to be included in hearings of the arbitration law review committee.*
 - *Allow arbitration tribunals to enforce a short shut down of a project to facilitate a quick inspection of the works and a quick decision by the tribunal.*
 - *Allow the arbitration tribunal to make non-binding decisions, in the spirit of Sulh.*
 - *Allow courts the discretion to review details of an arbitration case and not just the procedure.*
 - *Provide greater clarity about exactly how arbitration clauses and the arbitration process are described in contract documents*
 - *Introducing more flexibility in the language used for the arbitration process.*
- *Summary of main findings and contribution to understanding the culture's impact on the construction culture in SA:*

The survey conducted as part of this thesis revealed

1. Positive signs that some employers in Saudi Arabia are beginning to recognise the importance of cultural awareness and have started to provide culture training for their employees.

2. The arbitration process was found to have a number of positive cultural features and could provide an effective base from which to promote positive culture change in the construction industry of Saudi Arabia.
3. The parties were part of a growing trend in Saudi Arabia of organisations that are sufficiently aware of the arbitration process to include clauses in their contract that enabled them to use the process. That in itself may be viewed as a sign of positive cultural change, but their behaviour in disputes reveals they are often victims of the culture of poor cooperation that is significant in the Saudi construction industry. However, the growing experience of the positive features in the arbitration process may help parties understand how further cultural change may lead to beneficial impacts on the success of future projects.

Taken together, the analysis of the four interview questions

1. From Q2A, the author suggested that when entering into a contract, Saudi Arabian parties probably started in the spirit of "good faith", as per the culture and custom in Saudi Arabia. But that good faith is being undermined by the frequency and severity of disputes in the industry.
2. The actual culture of the organisations involved in disputes is quite wide ranging, but Q2B revealed that some organisational cultures would make parties better able to learn the lessons from disputes whereas others cultural types would hinder that process.
3. From Q2C the author proposed that if parties were aware of the role that Saudi Arabia had played, via the ARAMCO case*, in changing the international culture relating to the use of arbitration, then parties might be much more willing to consider implementing further cultural changes within their organisations.
4. Finally, Q2D revealed that before any process of organisation culture change was enacted, parties would need to undergo training to learn about organisational culture types, their advantages and disadvantages.

Before discussing the focus group outcomes, the disagreements and views that the participant has on the research findings will be discussed and commented on. At the beginning of the presentation, each participant mentioned that he/she would shed light on

the points they disagree with. Therefore, the other findings either they cannot comment on, or they already agree with. The focus group has 4 participants apart from the moderator (researcher). There are experienced two lawyers (male and female), one contract consultant and one assistant professor (Academic person). The researcher set a time that suits all the participants to meet online.

7.2.1 Focus group outcomes

The researcher started the meeting with a brief introduction about the research and the focus group meeting's objective. Then the researcher introduced the first participant (lawyer1). Each participant took 10 – 15 minutes to speak, including any question that other participants or researcher have to ask the speaker. Below are the transcripts of each participant in the focus group.

1) The transcript of participant 1

Lawyer 1 (Male)

I will highlight some points in a random style as I'm not in a position to validate and judge the research. Few points have attracted me in this research. The points that I will highlight are the points that I disagree with. While the other points (findings) that I agree with, there is no need to mention it.

- There are features in the new arbitration law issued 2012, I have not read in the findings in this research which I think it is worth mentioning. The new law has adapted what we call United Nations Conference on International Commercial Arbitration (UNCITRAL) model arbitration law, which is well recognised internationally. This model law is the outcome of the international convention by the International Chamber of Commerce (ICC). So, I think it should be highlighted in some way. That also shows the legislative body's interest in Saudi Arabia to be aligned with the international development in international law. Therefore, it reflects such intention to have better arbitration practice.
- The new change in the arbitration law is the change in the court supervision role involvement in the arbitration. One of the changes in the new law is the supervision of arbitration process starting from the appointing the arbitrators and following to any other procedure after that. It is now held with the appeal court which is

different than the old arbitration law where it was in the first instance court. That had been noticed as additional litigation level and that's why we consider it as a great change.

Researcher: Do you mean it expedites the arbitration process?

Yes, it is expediting the process from one side and limits the substantial supervision of the court. Currently, the court's domain is just reviewing the procedure without engaging in the subject and validating the court outcome of the tribunal decision without questioning the judgment. Therefore, it is suitable for arbitration.

- Some of the research suggestion and findings that there should be additional involvement of the court in reviewing the arbitration procedure. I am afraid I have to disagree with this finding. If we are talking about enhancing the arbitration role as dispute resolution method, I think we should support the idea of minimizing the role of the court's involvement.
- One of the points I do not see in the suggestion is related to the cultural area of dealing with arbitration and arbitrators. This is about 2 arbitration type in SA (Ad-hoc and institutional). We have seen the new role of the Saudi Arbitration Centre to promote the arbitration culture. They are spreading the arbitration culture amongst the governmental bodies and large companies like Saudi Aramco and another stakeholder. They have been successful, and I think this should be mentioned in the research outcomes.

Researcher: What do you think about the restriction of chairman of the arbitration tribunal should be law or sharia background? Do you agree or not, and will it be changed in the future?

Contract Consultant:

I disagree and do not see any relevance. This restriction should not be included in the new arbitration law.

Lawyer 1:

I will support it as the arbitration tribunal's role is precisely the same as the court's role. So, the arbitration is alternative dispute resolution. The old general role that governs the

litigation process is applied on the arbitration process mainly. When it comes to the evidence law and when it comes to the legal research and legal interpretation principle in the contract. All these elements are mainly legal jobs that should be handled by someone who has sufficient legal background. At the same time, the parties are free to appoint any arbitrator. The situation will become in danger if the parties choose someone who has no legal background and is not familiar with such technicality of the law. So, I agree with that and I don't any change in this restriction in the future unless in the institutional law and the arbitrators have to qualified to cover any changes.

Contract Consultant:

When you look at Joint Contracts Tribunal (JCT) or NEC form of contracts, the articles of contract when there is arbitration, the parties in RCIS or Institute of Engineering will have the option to appoint the arbitrator, so I disagree with this restriction.

Lawyer2: (female)

In my view, the decision whether the arbitrator is legally and technically qualified. It must be decided based on 2 other arbitrators, and if we have only one arbitrator, I'll go with Lawyer1 and support this restriction. I do not think the person needs to be Sharia qualified because there is very little Sharia law regarding construction. The construction industry is very contractual, and there is very little law attached to it. I mean by the law related to construction is the law of contract itself, and there is not much linked to Sharia. The megaprojects in the construction have a certain standard of contracts, such as FIDIC and NEC. The interpretation of that construction law standard is derived from a legal perspective, and therefore, it is very factual and contractual. Hence, the construction professional got much training when it comes to construction contracts, and they are better suited than lawyers and approached from an interpretation perspective. However, they have a lack of experience in drafting the arbitration award and here you will need a lawyer's support. For me, if there is at least one member of the tribunal who is legally qualified, it should be covered. Moreover, the last thing you want that the arbitral award to be appealed based on invalid background or because there are procedural errors.

7.2.2 Discussion of the main points the first participant raised

The participant added points that the research did not show related to the arbitrational culture and practice in Saudi Arabia. The participant emphasised the new arbitration law issued in 2012 and how it reflects the spirit of UNCITRAL and ICC to have better arbitration practice in Saudi Arabia and align with the arbitration across the globe. The researcher proposed that:

"Allow courts the discretion to review details of an arbitration case and not just the procedure."

The participant disagreed with the proposal. Bringing more involvement of the court can deteriorate the arbitration practice. It is considered to be harmful interference as the arbitration role is similar to court's role in dispute resolution. The participant also disagreed with another proposal:

"Change the requirements in relation to the legal background of the arbitration tribunal chairperson, which is currently too restrictive."

The participant focused that arbitration is a legal process that needs an arbitrator that has sufficient law background. Therefore, this clause of the arbitration should not change. Having said that, participant 2 (contract consultant) agreed that restriction in appointing the chairman of arbitration tribunal should be amended to be compatible with arbitration practice worldwide. Moreover, participant 4 (a Female lawyer) agreed with participant 1 to some extent. She mentioned that the construction law is more specific and unique. She added that the arbitration case needs at least 1 arbitrator who has law background.

2) The transcript of participant 2

Contract Consultant:

I have noticed in most construction contracts in SA, as I work for Saudi Aramco, there is no arbitration in ARAMCO contracts or any alternative dispute resolution such as mediation and adjudication, so we have a standard type of contract. There should be something like that (Aramco standard contracts) to promote this type of contract. I'm going down the line like construction acts in the UK when it said you have to have ADR. I believe that big clients are out there, and we also know that cash flow is the lifeblood of any construction industry.

The issue is the delay in paying the contractors and keep them hanged. So, I think they should be a process either to go back to arbitration or adjudication (quicker) to get a solution. So, the contractor can be paid or whatever the disputes were. The other findings in your research I agree with, in Aramco's construction projects, we tend to go for the lowest price, and I think this is a recipe for disaster. When you go for the lowest price, the contractor will cut corners in one way or another, which will eventually cause problems. I think it's all about the procurement, and the key thing is looking at the procurement process and trying to go away from lump sum, fixed price procurement.

Moreover, you may consider looking at what the other developed world is doing. Trust your contractor as some works cannot be procured via a lump sum, and it might be target cost or cost reimbursable. If these things have been done and everything are straight on the set, it will prevent disputes from going further.

Researcher: Do you do adjudication in Saudi Aramco contracts?

If there is a dispute, we will send it to the contracting department and look at it. If the parties still do not agree, they will go to litigation with an independent body. But in practice, most local contractors do not take Aramco to court. They are afraid to lose any chances to continue working with Aramco. International contractors might do it but not the local contractors.

Researcher: I have a cultural perspective questions, how the local contractors have been affected culturally and do they cope with that culture outside Aramco projects?

I would say yes to some extent. All our contractors are very well written in English (standard form), and the contractor has to meet minimum criteria to be on the approved vendor list. So, when they can compete with the international contractors within Aramco, they can easily compete and spread Aramco culture in other local projects.

Lawyer 2

My understanding that Aramco now is including ADR clauses in its contracts. It has been promoted for last couple of years, and this move is driven by the drive of ADR, especially the arbitration in Saudi Arabia. There was a new law issued recently (New procurement contract), and there is awareness promotion of arbitration across Saudi Arabia by the Saudi

Arbitration Centre. So, is Aramco part of the governmental entity that can get arbitration in their contracts?

Contract Consultant:

I think it is a grey area, and Aramco is governmental private, and what our management does when the claim suits the government, it becomes a governmental entity. When the claim suits the private entity, it becomes a private entity. I believe they are now more to the private organisation because of the international initial public offering (IPO). We use the local contract (grass-root contract), and we do not use ADR clauses. But in megaprojects, they have ADR and arbitration clauses. My role is focused on the local contractors, and we do not have ADR clauses in these contracts.

7.2.3 Discussion of the main points the second participant raised

The second participant confirmed that ARAMCO chooses the lowest price in the tendering process, which is a root for disputes as per the participant. ARAMCO has its own procedures to deal with local contractors' disputes and do not have either arbitration or adjudication. They do have litigation but it is not unusual for the contractors to take ARAMCO to the court as they do not want to lose the chances working with ARAMCO. On the other hand, ARAMCO has different strategy and there are arbitration clauses in the mega projects when they have contracts with international contractor.

3) *The transcript of participant 3*

Academic in Construction Management

I am familiar with the public contract and the construction industry in general. Whatever the solution you are trying to put, without considering the culture of the people in the industry and the culture itself. I think it will be less effective rather than fully adequate. For example, the construction industry itself is the most demanding industry I have been involved in. One of the main things is people's involvement in the industry (so many stakeholders), and if we are not considering that relationship, problems will arise. Therefore, why 90% of the projects considered to be cost overrun or may be delayed. I have read the research findings, and here are my comments. First, regarding the Jeddah Chamber of Commerce and Industry (JCCI) data, it wasn't surprised me that 90% of the arbitration causes are coming from Saudi culture, and I believe that the contractors are in weak positions. Therefore, the clients

sometimes believe that they have more authority over the contractor and abuse the contractile relationship. It's within our culture and could be similar to other culture.

I think it may link to the public bodies, and I believe the bodies have authorities over the service providers by large. That relationship affects every private sector, and one of the main points I would be careful about is when you are trying to find the most common causes of disputes. I would be personally careful regarding saying "causes". I think the cause/effect relationship is more complicated than it is just causing. For example, one of the causes I am confused about is the lowest tender. I do not think the lowest tender is a direct cause for the dispute itself. It may be at the end of the chain, and it triggers other causes. The late payment is the direct causes, and I am surprised it comes last in the rank of most common causes. I believe it is going to be on the top 2 causes.

Another point I am surprised about is that 90-95% of the cases are appealed. I think it is a very high percentage. By the end, you are trying to say that the final award is satisfactory. There is no relationship if people are satisfied why 90-95% of the cases are challenged and appealed. I totally agree that the arbitration process's effectiveness is down to the people involvement in the process, which highlights what I have mentioned at the beginning about the culture in Saudi Arabian construction. I believe that the arbitration in its beginning route and is not mature enough in Saudi Arabian construction culture. I think it's legally supported by the public sector, which shapes 70% of the construction in dusty in SA, and it refers to the ministry of finance.

7.2.4 Discussion of the main points the third participant raised

The participant stressed more on understanding the culture to get productive and effective projects. He also stressed that the client in the public contract has more authority in the contractual relationship, leading the abuse him as the participant stated. The participant also declared that the causes of disputes are more complicated than describing it as a direct cause. He thinks the lowest tender is not a direct cause for dispute, and he is surprised that the late payment was not one of the top 2 main dispute causes.

4) The transcript of participant 4

Lawyer 2 (Female)

The fourth participant raised the following comments on the research findings.

- Appointment of arbitrators if done by a third party by default may obstruct the system and be counter-intuitive to arbitration's party autonomy aspect, which is one of the main perceived advantages of arbitration.
- Fees are often unpaid by the respondents and the claimant has to step in to pay the respondent's share of fees in order for the arbitration to proceed. Have you considered the following possible solution: the law could provide for the respondent's mandatory payment – otherwise, the respondent can be held liable for breach of the arbitration agreement?
- Consider Dispute Boards as an effective means of preventing, avoiding and resolving disputes – it has a considerable success rate of 99% and is rarely appealed against.
- One improvement may be to introduce mandatory adjudication (like in UK) for construction projects.
- Although not final, they can have a binding effect, and in countries where they are prevalent, they have been very effective in preventing, avoiding and resolving construction disputes.
- The non-binding decisions you suggest may take the form of evaluative mediation
- Allowing the court to review the substance of arbitration is not something I am in favour of – what would be the advantage of going to arbitration if that's the case? Parties would be burdened by both – arbitration would no longer be an alternative – it would be more of a process that would precede court litigation.
- Possible improvement: have standard contract form specific to Saudi Arabia/gulf (like FIDIC, NEC, JCT)
- Awareness campaign by Saudi Center for Commercial Arbitration (SCCA) – to continue to raise awareness and promote arbitration as an alternative means of resolving disputes

7.2.5 Discussion of the main points the fourth participant raised

The fourth participant disagreed with finding a third party to choose the arbitrators to enhance the local arbitration culture in SA. She emphasised that this practice will hinder the arbitration system and affect the independence of the arbitrators. The participant focused on the practice of DRB in construction projects, which has a high rate of success and avoids dispute resolution methods. She suggested that the legal authority in SA should enforce the

arbitration payment by the respondents; otherwise, he will be held accountable. One of the disagreements the participant commented is letting the court review the arbitration decision will be against the efficiency and the application of the arbitration. The arbitration award is binding, and such a suggestion will make the arbitration unbinding. She admired the awareness and effort that the Arbitration (SCCA is making) spread the word about arbitration's effectiveness.

7.3 Summary and Conclusion

It appeared that the aim of this chapter by validating the main findings and test their reliability had been achieved. The focus group served that purpose properly, and the participants enlightened the researcher with some suggestions and provided well-explained disagreements of some findings. In the end, the activity strengthened the research's findings and made them reliable.

Chapter 8 - Conclusion and recommendations for further research

At the start of this thesis, the author explained that the study aimed to investigate links between contractual disputes and project culture in the construction industry of Saudi Arabia. He promised that the research would deepen current levels understanding of the role that culture plays in the evolution of project disputes and that the study would explore the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia. Using the new knowledge and understanding gained from the research, the author would assess how the arbitration process can be harnessed to mitigate the frequency and severity of future disputes in the industry. In this chapter, the author will evaluate the extent to which that aim has been achieved.

Specific objectives provided a framework for the investigation, which included a systematic review academic literature to assess current levels of understanding about construction industry culture and how it is linked to the evolution of disputes on construction projects. That review also assessed systems used for the resolution of construction disputes, with a specific focus on arbitration and the arbitration system used in Saudi Arabia. Based on the review, the author compiled a set of data about construction industry disputes in Saudi Arabia from which to draw lessons linked to the overall project aim. Analysis of the data, using a grounded theory-based critical post-positivist approach, enabled the author to propose how newly developed understanding of links between the evolution of disputes and construction industry culture can be incorporated into the arbitration system to mitigate the frequency and severity of future disputes in the construction industry of Saudi Arabia.

Three working hypotheses guided the study and helped to illustrate new findings and the contribution that this thesis has made to current knowledge. The first hypothesis considered that project disputes are a phenomenon common to construction projects around the world. In Saudi Arabia, the frequency of project disputes is judged to be high, so there is an urgent need to develop proposals that can effectively improve construction project performance. The second hypothesis judged that, despite the fact that the law on arbitration is well established in Saudi Arabia, there is very little evidence of research assessing the effectiveness of the arbitration process in changing construction industry

culture and reducing the frequency and severity of disputes in the industry. There is a pressing need for new research that aims to assess how the arbitration process can be harnessed to apply new learning about construction industry culture to mitigate the future frequency and severity of disputes in the industry. Finally, the third hypothesis claimed that the culture of the Saudi Arabian construction industry is not well studied, and its influence on the evolution of disputes is less well understood. There are growing awareness and concern that the current culture is having a detrimental effect on levels of trust between parties to construction contracts in Saudi Arabia Assaf *et al.*, (2019); Ghannam (2016); Jannadia *et al.* (2000) and there is an urgent need to verify if this concern is valid or not.

8.1 Findings and contribution to knowledge about disputes in the Saudi Arabian construction industry

In chapter 4, the author addressed the hypothesis that in Saudi Arabia the frequency of project disputes is judged to be high, so there is an urgent need to develop proposals that can effectively improve construction project performance. The author started by analysing evidence collected during his observation of an arbitration hearing. That scenario involved a dispute between a contractor and a client. The client had cancelled the contract early, and the contractor was seeking payment for works undertaken before the contract was terminated. As the analysis in the chapter progressed, the scenario was used to highlight findings and explain new knowledge derived from this research.

Data from the JCCI showed that main contractor in supply-chain disputes adopts the same role as the client in the other cases (the Payor, as opposed to the Payee). From that perspective, the JCCI data showed that, overall, in 69% of cases, the claimant was the Payor. This small set of results is significant, as there was no evidence in the published literature of research that had been able to quantify the extent to which disputes were split between the main parties and the supply chain, and the extent to which the contract Payor or the Payee were the instigators of disputes. From the survey data, the author was able to confirm that Time delay was the most frequent cause of disputes on construction projects in Saudi Arabia (38.5% of cases). Changes in scope and delays in payment were the next most frequent causes of disputes (23.1% in each case). Here again, the unique contribution of this research

to current knowledge is not the identification of new causes of disputes, but the quantification of each cause in relation to the overall number of cases.

The JCCI data revealed that, after an arbitration process, 90-95% of all arbitration rulings are appealed. Here again, the data contribution does not contradict the prior research and is only able to shed light onto a single part of the overall length of time it takes to resolve a dispute. What is new is the finding that 90-95% of cases going to arbitration are appealed, as this level of appeals was not previously reported. The survey data analysis showed that in Saudi Arabia, an industry practitioner would need to have 10-14 years of industry experience, and also 6-8 years of dispute resolution experience before becoming sufficiently well versed in the dispute resolution process to engage with the DBR. The inference that can be made here is that with little or no experience, the industry practitioner's natural inclination is that disputes will be resolved amicably. However, as greater experience is gained, so that early (perhaps naïve) optimism is diminished. That said, some answers from even the most experienced respondents included those who agreed that disputes in Saudi Arabia are resolved in a friendly manner. That is a positive finding from this research about the Saudi Arabia dispute resolution process. The main finding from the survey data was that, in rank order, the most common cause factors leading to disputes in Saudi Arabia are:

1. Time overrun
2. Lowest tender
3. Client change to the scope
4. Contractor led change
5. Late payment

The final insights and learning about disputes in the construction industry of Saudi Arabia was derived from the face to face interviews. Interviewees described contractual practices on construction projects in Saudi Arabia as similar to that of other countries. As such many of the issues raised were not unique to Saudi Arabia. One finding that may be more significant in Saudi Arabia than in many other countries is the power that public clients in the country have to reject suppliers and sub-contractors proposed by the main contractor. That is a significant risk for the main contractor, especially if suppliers and sub-contractors that the main contractor used to prepare his tender bid are rejected by the client. Another finding is that the range of contract forms available in Saudi Arabia is limited. Hence, it

creates a potential problem for construction projects with large supply chains. The limited range of contract forms available is a problem for contracts lower down the supply chain. The break-in contractual form chain along the supply chain can add complications to efforts to resolve disputes, as clauses and conditions may be very different in each agreement.

8.2 Findings and contribution to the understanding of the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia

Chapter 5 of this thesis addressed the hypothesis that there is a pressing need for new research that aims to assess how the arbitration process can be harnessed to apply new learning about construction industry culture to mitigate the future frequency and severity of disputes in the industry. To that end, the chapter outlined a detailed and structured investigation into the role that arbitration plays in the resolution of disputes on construction projects in Saudi Arabia. The author's personal experiences helped to reveal how, despite many years of specialist education and industry experience, understanding of the arbitration process was not guaranteed. As part of this PhD programme, the author sought out opportunities to deepen his understanding of the arbitration process in Saudi Arabia and found limited material in published research. International academic events where dispute resolution issues were discussed were equally unenlightening. The author was able to discover quite a lot about the general theory of dispute resolution system in different parts of the world. However, his main hypothesis remained valid.

Significant findings from the research in this thesis started with the analysis of the JCCI data. The first quantifiable contributions by this research to the general understanding of the arbitration process in Saudi Arabia was that the average length of time to complete an arbitration case via the JCCI was 7.5 months and that 90-95% of decisions were appealed. Despite the high appeal rate, the average length of the arbitration process from the first meeting until the award was judged to be a good level of efficiency when compared to the litigation process. Initially, the author feared that the high level of appeals could be a problem for this research, undermining any proposal that aimed to increase levels of awareness and use of arbitration in Saudi Arabia. However, the fear was reduced by the

survey and interview data analysis, which showed that generally, the arbitration process was judged to be effective.

The survey data analysis revealed previously unreported strengths and weaknesses in the Saudi Arabian arbitration process. The four-strong points about arbitration in Saudi Arabia were found to be (in rank order):

5. The arbitration process is transparent
6. The final award from the arbitration process is satisfactory
7. Cooperation between disputants involved in the arbitration is good
8. Communication between parties in the arbitration process is effective

The two areas where the arbitration process is less strong are (in rank order):

5. The arbitration process works smoothly
6. I know how the arbitration process in Saudi Arabia works

The survey data confirmed the author's early judgement that is simply engaging in the dispute resolution process does not help in gaining a better knowledge of the arbitration process the only ways to address that was to secure a formal role in the process. Even then, opportunities to gain experience of arbitration are limited, as arbitration clauses are only "sometimes" written into construction contracts in Saudi Arabia. As a consequence, the survey found that, despite having an arbitration law since 1983, the arbitration process in the country is still not very well understood. That said, this research confirmed that changes to the arbitration law in 2012 have had a small but positive impact on the practice of arbitration in Saudi Arabia.

Previous research had suggested that adjudication, litigation and arbitration are too slow to achieve effective results in Saudi Arabia (Al-Ammari & Timothy Martin, 2014; Nesheiwat & Al-Khasawneh, 2015). However, this research revealed that the law itself is judged to be ok. Instead, issues affecting the efficiency and effectiveness of the arbitration process are largely down to the people involved. In Saudi Arabia, the problem with the quality of the people in the arbitration process led some parties on larger projects to seek support for the settlement of disputes outside the country. For smaller projects, unfamiliarity with or distrust of the arbitration process led other parties to exclude arbitration clauses from their contracts, going instead straight to litigation. However, and importantly for this research,

parties who were familiar with the arbitration process rated it as much more effective and efficient than the litigation process.

The interview analysis also revealed a general agreement that the main purpose of the 2012 changes to the arbitration law in SA was to make arbitration decisions binding, which was a significant change from the old law. However, the new law did not change some of the underlying and disruptive culture associated with the arbitration process. Specifically, the culture surrounding the appointment of arbitrators and bias in the arbitration process was not addressed in the new law. The result being that corrupting influences can have an impact under the new law and undermine trust in the system.

The overall feeling amongst the interviewees was that the current arbitration law and its executive regulations are better than the previous law and are effective. The new law has introduced some useful flexibility in the process to be followed and aligns well with the procedures used by the courts in Saudi Arabia, especially in relation to the use of external experts. The author was able to define several proposals to enhance the arbitration system in Saudi Arabia. These include:

- Change the requirements in relation to the legal background of the arbitration tribunal chairperson, which is currently too restrictive.
- Change the system used for appointing arbitrators, possibly by using an independent body and drawing from an approved and categorised list of qualified arbitrators.
- Clarify rules regarding the setting and payment of fees for the arbitration process.
- Improve guidance about what to do if one party refuses to cooperate and frustrates the arbitration process
- Allow views from a broad range of participants to be included in hearings of the arbitration law review committee.
- Allow arbitration tribunals to enforce a short shut down of a project to facilitate a quick inspection of the works and a quick decision by the tribunal.
- Allow the arbitration tribunal to make non-binding decisions, in the spirit of Sulh.
- Allow courts the discretion to review details of an arbitration case and not just the procedure
- Provide greater clarity about exactly how arbitration clauses and the arbitration process are described in contract documents

- Introducing more flexibility in the language used for the arbitration process.

8.3 Findings and contribution to understanding of culture and its impact on the Saudi Arabian construction industry

Chapter 6 of this thesis explored and analysed features of the construction industry culture in Saudi Arabia. The hypothesis that started the analysis was that the culture of the Saudi Arabian construction industry was not well studied and that its influence on the evolution of disputes is even less well understood. The author considered that there were a growing awareness and concern that the current culture is having a detrimental effect on levels of trust between parties to construction contracts in Saudi Arabia and there was an urgent need to verify if this concern is valid or not.

The analysis commenced with the author outlining his positionality, as a slightly distanced cultural “insider”. That position enabled him to draw deep insights from the data collected and analysed in this study. The author’s blend of local and international education also helped him to amass a balanced body of knowledge, critical for the objective analysis of subjective material collected by the PhD research. The author’s personal experience, acting as an intermediary between a client and a contractor and trying to help resolve a dispute between them, helped him to reveal the difficulty that people in that position face. On the one hand, trying to be independent and objective, but on the other hand, bound by an obligation to help one party defend a claim by another. In this analysis, that experience was used to illustrate how the loss of trust and “good faith” between the parties in a dispute can arise. No contract form or technical report can prevent that problem arising; it is a cultural issue. If the culture of mutual cooperation and collaboration to meet project goals had been maintained, it is likely that disputes would not develop.

The structured research activities in years 1 and 2 of this PhD programme helped the author understand how cultures on and around construction projects can influence the prevalence and severity of disputes. He was able to develop ideas about how parties could work collaboratively towards project success, but he was also able to reveal challenges that any effort to change an industry’s culture could face. He assessed that organisational leadership and programme governance had an important effect on the creation of cultures. Finally, one of the most important outcomes of the pilot study was that cultures could be highly

resistant to change. He assessed that the roots of disputes could well lie in deep-seated cultural beliefs held by the disputing parties. That led each to be distrustful of the motives behind the actions of the other parties. If at the start of a project, the parties engaged in positive efforts to understand each other's culture and senior management collaborated to define a clear set of shared objectives for the project, then the dispute may not arise. But, the author recognised that such efforts would likely encounter resistance, and would have only succeeded if the leadership of all parties shared a belief in the value of efforts build a better cultural understanding between them.

The survey conducted as part of this thesis revealed positive signs that some employers in Saudi Arabia are beginning to recognise the importance of cultural awareness and have started to provide culture training for their employees. However, when working to resolve disputes in the country, cultural awareness has yet to make an impact on the level of cooperation between the parties when working to resolve disputes. Drawing together lessons from elements of the survey analysed in chapters 4 and 5, the author revealed unique features of the culture in the construction industry of Saudi Arabia that both help and hinder the way that disputes arise and are resolved in the country. As a basis to effect change, the arbitration process was found to have several positive cultural features and could provide an effective base from which to promote positive culture change in the construction industry of Saudi Arabia. The lessons learned suggested that parties to construction contracts in Saudi Arabia were becoming sufficiently aware of the arbitration process to include clauses in their contract that enabled them to use the process. That in itself may be viewed as a sign of positive cultural change, but their behaviour in disputes reveals they are often victims of a culture of poor cooperation that is significant in the Saudi construction industry. However, the growing experience of the positive features in the arbitration process may help parties understand how further cultural change may lead to beneficial impacts on the success of future projects. But those benefits will only be realised if the parties actively engage in programmes to raise awareness and understanding about culture in their own organisations.

Taken together, the analysis of the four interview questions provided the final insights to be applied to the understanding of culture in this chapter. From Q2A, the author suggested that when entering into a contract, Saudi Arabian parties probably started in the spirit of

“good faith”, as per the culture and custom in Saudi Arabia. But that good faith is being undermined by the frequency and severity of disputes in the industry. It is not clear if all parties are aware of the need to change the culture in the industry, but the analysis in chapter 6 suggests that there is a growing awareness of that need. The actual culture of the organisations involved in disputes is quite wide-ranging, but Q2B revealed that some organisational cultures would make parties better able to learn the lessons from disputes whereas others cultural types would hinder that process. From Q2C the author proposed that if parties were aware of the role that Saudi Arabia had played, via the ARAMCO case, in changing the international culture relating to the use of arbitration, then parties might be much more willing to consider implementing further cultural changes within their own organisations. Finally, Q2D revealed that before any process of organisation culture change was enacted, parties would need to undergo training to learn about organisational culture types, their advantages and disadvantages.

8.4 Recommendations to mitigate the level of disputes and improve arbitration practice

One of the essential recommendations is having a detailed contract document to minimise disputes. The research result showed that imperfect contract document is one of the leading dispute causes. Moreover, the local culture of the good faith principle is connected to the poor contract document. Furthermore, the diversity of the construction industry requires various types of contract to fulfil this need. Therefore, it is recommended to have them in place rather than have one template of contract: The Public Works of Contracts. Another recommendation is to introduce the use of DRB in construction projects. It will help resolve the disputes once they arose, and the global practice has proved its success and effectiveness. Raising awareness of the contractual relationship between the parties will help produce a proper contract that includes the procedures when the disputes happen. Therefore, it is recommended to train the parties on the contracts' legal side, especially if they have an engineering background. The research results showed that parties do not have a full picture of the arbitration and how it should be implemented and its benefits. Therefore, it is recommended to have legal training for the parties before including the arbitration clause in the contract.

8.5 Research impact

The author in the focus group discussed the research's main findings and impactful are these industry findings. The participants acknowledged these findings and the originality that came out of the research. The stakeholders in the focus group shared their views about the impact and the importance of this research. They suggested sharing these findings in publications to make them more accessible for the construction decision-makers to pick the main ideas. The author believed that the outcomes of construction disputes, construction culture, and the arbitration practice are novel, and it will positively impact the construction industry in SA.

8.6 Challenges and limitations in the research

The author faced difficulties getting to observe more arbitration meetings. It would have added further and exciting insights to the research about arbitration practice in Saudi Arabia if the researcher had been able to include more observation of arbitration hearings.

Concerns about confidentiality were challenging to overcome, and parties took a long time to develop the trust needed to allow observation to take place. In hindsight, to include more observation, the researcher must start developing trust with relevant parties very early in the study programme.

Another challenge, for similar reasons to the arbitration hearing observation, was getting approval to collect data from JCCI. It took further the author a considerable length of time, and several meetings before the JCCI would agree to share their data, even for research purposes. The author got approval in the last days of the data collection journey, so he could only collect quantitative data for only 2 years (2016-2017).

The third challenge was getting more responses to the survey and interviews, which would have strengthened the quantitative and qualitative parts of the analysis. The logistics for arranging the interviews with the participants was a particular challenge. Some participants kept cancelling a meeting at the last minute, even after the author had arrived at their offices.

8.7 Opportunities for further study

Following on from the assessment in Section 7.5, further opportunities exist to explore the validity of findings by this research by undertaking further observational studies, a large practitioner survey and many more professional interviews. However, as the research for this thesis has drawn to a close, the author was interested to note that in May 2020, the Ministry of Finance in Saudi Arabia has issued a new General Works Contract. What would be very interesting to learn is the extent to which issues relating to the old General Works Contract have been addressed in the new version. Initial information received by the author is that the main purpose of revising the old contract to reduce the level of disputes on projects where it was used. As such, this research and its findings are, therefore, well-timed and provide a framework in which the appropriateness of changes made to the old contract can be evaluated.

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Appendices

List of items included in the appendices

1. Questionnaire Survey Questions
2. Questionnaire Survey coding system
3. Raw data from questionnaire survey
4. Interview questions
5. A sample of one processed interview transcript
6. Ethical Approval form

Appendix I - Questionnaire Survey Questions

PLYMOUTH UNIVERSITY
FACULTY OF SCIENCE AND ENGINEERING
RESEARCH INFORMATION SHEET

Name of Principal Investigator: **Sultan Alsofyani**

Title of Research

Culture in the construction industry of Saudi Arabia, disputes and the arbitration process

Brief statement of purpose of work

This research is part of a PhD study programme that is investigating links between disputes on construction projects in Saudi Arabia and the cultures that surround them. It aims to deepen current levels understanding of the role that cultures play in the evolution of project disputes. In addition, the research is exploring the role that arbitration plays in the resolution of disputes on construction projects, assessing how the arbitration process can be harnessed to apply new learning about cultures in a manner that may help to mitigate the frequency and severity of disputes on projects more generally.

Objectives

- Review academic literature to assess current levels of understanding about construction industry culture and how it is linked to the evolution of disputes on projects.
- Review systems used for the resolution of construction disputes, with a specific focus on arbitration and the arbitration system used in Saudi Arabia.
- Compile data about construction industry disputes in Saudi Arabia, with a view to deepen understanding of links between the evolution of disputes and construction industry culture.
- Propose how newly developed understanding of links between the evolution of disputes and construction industry culture can be incorporated into the arbitration system to mitigate the frequency and severity of future disputes in the construction industry

Ethical issues:

- You are free to withdraw from the survey at any stage, and ask for your data to be destroyed if you wish.
- Your anonymity is guaranteed and no record of your name or organisation will appear in any publications associated with this research unless you expressly request that your name is published.

If you have any questions about the research you may contact the principle investigator using the details below:

Name: Sultan Alsofyani, Telephone number: 07470163988,

Email address: sultan.alsofyani@plymouth.ac.uk

Section 1 – Background data

1. What is your gender? **Male/Female**

 2. What is your age? **_____ years old**

 3. What is your highest educational qualification? _____

 4. What is your official job title? _____

 5. Do you have any official role in the resolution of disputes on construction projects in Saudi Arabia? **Yes / No**
- If yes, please describe your role here:
6. How many years have worked in the construction industry in Saudi Arabia? **_____ years**

 7. How many years have you been engaged in in the resolution of disputes on construction projects in Saudi Arabia? **_____ years**

 8. How would you score your level of awareness of the Arbitration process in Saudi Arabia? (1=very low and 5=very high) **_____ score**

Section 2 – This section the survey is seeking to gather some data about the culture that exists in the Saudi Arabia construction industry

9. If a dispute arises on a construction project in Saudi Arabia it will always be resolved in a friendly manner

(please tick one answer below):

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Please provide a brief explanation of your answer here:

10. Personnel joining a construction company in Saudi Arabia are provided with training about the company culture

(please tick one answer below):

- Always happens
- Frequently happens
- Rarely happens
- Never happens

Please provide a brief explanation of your answer here:

11. When a dispute arises on a construction project in Saudi Arabia, how cooperative are the main parties in working to resolve the dispute?

(please tick one answer below):

- Very cooperative
- Moderately cooperative
- Not cooperative

Please provide a brief explanation of your answer here:

Section 3 – This section the survey is seeking to gather some data about the way in which disputes on construction projects in Saudi Arabia are resolved

12. Have you heard of the “Dispute Resolution Board” (DRB) in Saudi Arabia? **Yes / No**

If yes, please explain how you came to hear about the DRB:

13. Have you ever engaged with the DRB? **Yes / No**

If yes, please explain how many times you have engaged with the DRB:

14. In your opinion, how helpful is the DRB in preventing the disputes from evolving and arising on construction projects in Saudi Arabia?
(please tick one answer below):

- Very helpful
- Somewhat helpful
- Not so helpful
- Not at all helpful
- Do not know

16. The main reason why disputes arise on construction projects in Saudi Arabia is the weakness of articles in contract document between the parties.

(please tick one answer below):

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

17. What are the most common factors that cause the disputes on construction projects in Saudi Arabia?

(Please rank each factor with a score between 1 to 5, where 1=most common and 5=least common):

- Time over run
- Frequency of changing orders via contractors
- The client change his mind after commencing the execution
- Late payment to the contractor
- Selecting the lowest price offered by the contractor over quality

18. When tendering for construction services in Saudi Arabia, clients always choose the lowest tender price.

(please tick one answer below):

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Please provide a brief explanation of your answer here:

Section 4 – This section the survey is seeking to gather some data about the Arbitration process used in Saudi Arabia

19. Please read the following statements and provide a rating score to indicate how strongly you agree with the statement:

(Please rate each statement with a score between 1 to 10, where 1=low level of agreement and 10=high level of agreement):

- I know how the arbitration process in Saudi Arabia works _____
- The final award from the arbitration process is satisfactory _____
- The arbitration process works smoothly _____
- Cooperation between disputants involved in arbitration is good _____
- The arbitration process is transparent _____
- Communication between parties in the arbitration process is effective _____

20. How often are the terms governing the use of arbitration clearly written into contraction contracts in Saudi Arabia?

(please tick one answer below):

- Always
- Frequently
- Rarely
- Never

Please provide a brief explanation of your answer here:

21. In your opinion, is the arbitration process in Saudi Arabia clear and well understood?

(please tick one answer below):

- Clear and well understood
- Not clear but well understood
- Clear but not well understood
- Not clear and not well understood

Please provide a brief explanation of your answer here:

22. In 2012, the arbitration law in Saudi Arabia was amended. In your opinion, how has the 2012 amendment to the arbitration law changed the practice of arbitration in the country?

(please tick one answer below):

- Highly improved the practice
- Partially improve the practice
- Not changed the practice
- Made the practice less effective
- Significantly worsened the practice

Please provide a brief explanation of your answer here:

END OF SURVEY

Thank you for taking part in this survey

If you would like to take part in a follow-up interview to discuss the issues raised in this survey further, then please provide your contact details in the box below.

Contact details for follow-up interview:

Appendix II - Questionnaire Survey coding system

Section 1	Background data	Answer Options	Answer Format	Answer coding
Q1	What is your gender? نوع الجنس؟	Male/Female	Select Option	Male = 1, Female = 2
Q2	What is your age? العمر؟	Answer in years	Number	Number value
Q3	What is your highest educational qualification ? أعلى درجة علمية حصلت عليها؟	Free choice	Text string	PhD=1, MSc=2, Bsc=3
Q4	What is your official job title ? المسمى الوظيفي؟	Free choice	Text string	
Q5A	Do you have any official role in the resolution of disputes on construction projects in Saudi Arabia ? هل تعمل في حل النزاعات في مشاريع الإنشاءات في المملكة العربية السعودية؟	Yes/No	Select Option	Yes = 1, No = 2
Q5b	If yes, please describe your role here:	Free choice	Text string	
Q6	How many years have worked in the construction industry in Saudi Arabia ? عدد سنوات الخبرة في قطاع الإنشاءات في المملكة العربية السعودية؟	Answer in years	Number	Number value
Q7	How many years have you been engaged in in the resolution of disputes on construction projects in Saudi Arabia ? عدد سنوات الخبرة التي عملت بها في حل النزاعات في مشاريع الإنشاءات في المملكة العربية السعودية؟	Answer in years	Number	Number value
Q8a	How would you score your level of awareness of the arbitration process in Saudi Arabia ?(please tick one answer below):(1=very low and 5=very high) كيف تقيم مستوى الوعي عن التحكيم وخطواته في مشاريع الإنشاءات في المملكة العربية السعودية؟الرجاء اختيار التقييم المناسب أعط تقييمك من 5 حيث 1 و 5 محدود جداً، بينما 5 و 1 عالي	Rank value 1 (low) to 5 (high)	Number	Rank value 1 (low) to 5 (high)
Q8b	Please provide a brief explanation of your answer here:	Free choice	Text string	
Section 2	This section the survey is seeking to gather some data about the culture that exists in the Saudi Arabia construction industry	Answer Options	Answer Format	Answer coding
Q9a	If a dispute arises on a construction project in Saudi Arabia it will always be resolved in a friendly manner (please tick one answer below): عند نشوء أي نزاع في مشاريع الإنشاءات بين أي طرف، اللجوء للحل الودي هو دائما أول الخطوات للرجاء تحديد الاختيار المناسب	5 stage ranking from strongly agree to strongly disagree	Select Option	Rank value 1 (strongly agree) to 5 (strongly disagree)
Q9b	Please provide a brief explanation of your answer here:	Free choice	Text string	
Q10a	Personnel joining a construction company in Saudi Arabia are provided with training about the company culture.(please tick one answer below) الجدد بالشركة يتم تدريبهم على ثقافة الشركة وأنظمتها للرجاء تحديد الاختيار المناسب	5 stage ranking from always happens to never happens	Select Option	Rank value 1 (always happens) to 5 (never happens)
Q10b	Please provide a brief explanation of your answer here:	Free choice	Text string	
Q11a	When a dispute arises on a construction project in Saudi Arabia , how cooperative are the main parties in working to resolve the dispute ?(please tick one answer below) عند نشوء أي نزاع في مشاريع الإنشاءات في المملكة العربية السعودية، مامدى تعاون أطراف: للنزاع لحله؟الرجاء تحديد الاختيار المناسب	4 stage ranking from very cooperative to not cooperative	Select Option	Rank value 1 (very cooperative) to 4 (Not cooperative)
Q11b	Please provide a brief explanation of your answer here:	Free choice	Text string	

Section 3	This section the survey is seeking to gather some data about the way in which disputes on construction projects in Saudi Arabia are resolved	Answer Options	Answer Format	Answer coding
Q12a	هل سبق وسمعت عن مجلس حل النزاع في مشاريع الانشاءات؟ (DRB) in Saudi Arabia? هل سبق وسمعت عن مجلس حل النزاع في مشاريع الانشاءات في المملكة العربية السعودية؟	Yes/No	Select Option	Yes = 1, No = 2
Q12b	If yes, please explain how you came to hear about the DRB:	Free choice	Text string	
Q13a	هل سبق وعملت في مجلس حل النزاعات؟ Have you ever engaged with the DRB ?	Yes/No	Select Option	Yes = 1, No = 2
Q13b	If yes, please explain how many times you have engaged with the DRB:	Free choice	Text string	
Q14	In your opinion, how helpful is the DRB in preventing the disputes from evolving and arising on construction projects من وجهة نظرك مامدى فعالية مجلس حل النزاع في منع تطور النزاعات في مشاريع الانشاءات في: (please tick one answer below) المملكة العربية السعودية؟ الرجاء تحديد الاختيار المناسب	4 stage ranking from very helpful to not at all helpful, plus do not know	Select Option	Rank value 1 (very helpful) to 4 (not at all helpful), 5 = Do not know
Q15	The main reason why disputes arise on construction projects in Saudi Arabia is the weakness of articles in contract document between the parties (please tick one answer below) السبب الرئيسي خاف نشوء النزاعات وتطورها في المشاريع هو الضعف: (please tick one answer below) العقد بين الأطراف المختلفة في المشاريع الرجاء تحديد الاختيار المناسب	5 stage ranking from strongly agree to strongly disagree	Select Option	Rank value 1 (strongly agree) to 5 (strongly disagree)
Q16	What are the most common factors that cause the disputes on construction projects in Saudi Arabia ?(Please rank each factor with a score between 1 to 5, where 1=most common and 5=least common): ماهي أكثر العوامل شيوعاً والمتسببة في نشوء النزاعات في مشاريع الانشاءات في المملكة العربية السعودية، الرجاء ترتيب العوامل من 1 - 5 ، يعني أكثر العوامل شيوعاً بينما 5 يعني أقلها شيوعاً			
Q16a	Time over run	5 stage ranking from most common to least common	Number	Rank value 1 (most common) to 5 (least common)
Q16b	Frequency of changing orders via contractors	5 stage ranking from most common to least common	Number	Rank value 1 (most common) to 5 (least common)
Q16c	The client change his mind after commencing the execution	5 stage ranking from most common to least common	Number	Rank value 1 (most common) to 5 (least common)
Q16d	Late payment to the contractor	5 stage ranking from most common to least common	Number	Rank value 1 (most common) to 5 (least common)
Q16e	Selecting the lowest price offered by the contractor over quality	5 stage ranking from most common to least common	Number	Rank value 1 (most common) to 5 (least common)
Q17a	When tendering for construction services in Saudi Arabia , clients always choose the lowest tender price .(please tick one answer below) العطاءات في مشاريع الانشاءات يختار صاحب العمل دائماً المقاول الذي يقدم أقل سعرالرجاء تحديد الاختيار المناسب: أثناء تقديم	5 stage ranking from strongly agree to strongly disagree	Select Option	Rank value 1 (strongly agree) to 5 (strongly disagree). 6=Do Not Know
Q17b	Please provide a brief explanation of your answer here:	Free choice	Text string	

Section 4	This section the survey is seeking to gather some data about the Arbitration process used in Saudi Arabia	Answer Options	Answer Format	Answer coding
Q18	Please read the following statements and provide a rating score to indicate how strongly you agree with the statement:(Please rate each statement with a score between 1 to 10, where 1= low level of agreement and 10= high level of agreement): الدرجة الأعلى: (Please rate each statement with a score between 1 to 10, where 1= low level of agreement and 10= high level of agreement): الرجاء قراءة العبارات الآتية وإعطاء تقييمك من 10 لكل عبارة ، حيث 1 يعني أدنى درجة من الاتفاق، بينما 10 تعني			
Q18a	I know how the arbitration process in Saudi Arabia works	10 stage ranking from low to high level of agreement	Number	Rank value 1 (low agreement) to 10 (high agreement)
Q18b	The final award from the arbitration process is satisfactory	10 stage ranking from low to high level of agreement	Number	Rank value 1 (low agreement) to 10 (high agreement)
Q18c	The arbitration process works smoothly	10 stage ranking from low to high level of agreement	Number	Rank value 1 (low agreement) to 10 (high agreement)
Q18d	Cooperation between disputants involved in arbitration is good	10 stage ranking from low to high level of agreement	Number	Rank value 1 (low agreement) to 10 (high agreement)
Q18e	The arbitration process is transparent	10 stage ranking from low to high level of agreement	Number	Rank value 1 (low agreement) to 10 (high agreement)
Q18f	Communication between parties in the arbitration process is effective	10 stage ranking from low to high level of agreement	Select Option	Rank value 1 (low agreement) to 10 (high agreement)
Q19a	How often are the terms governing the use of arbitration clearly written into construction contracts in Saudi Arabia?(please tick one answer below) السعودية؟الرجاء تحديد الاختيار المناسب احتمالية وجود شروط التحكيم مكتوبة بشكل واضح في عقود الإنشاءات في المملكة العربية:	5 stage ranking from always to never	Select Option	Rank value 1 (always) to 5 (never)
Q19b	Please provide a brief explanation of your answer here:	Free choice	Text string	
Q20a	In your opinion, is the arbitration process in Saudi Arabia clear and well understood?(please tick one answer below) من وجهة نظرك هل عملية التحكيم في مشاريع الإنشاءات واضحة ومفهومة؟الرجاء تحديد الاختيار المناسب:	5 stage ranking from Strongly Agree to Strongly Disagree	Select Option	Rank value 1 (Strongly Agree) to 5 (Strongly Disagree)
Q20b	Please provide a brief explanation of your answer here:	Free choice	Text string	
Q21a	In 2012, the arbitration law in Saudi Arabia was amended . In your opinion, how has the 2012 amendment to the arbitration law changed the practice of arbitration in the country?(please tick one answer below) في عام 2012 صدرت: (please tick one answer below) النسخة الثانية المعدلة من قانون التحكيم في المملكة العربية السعودية، من وجهة نظرك إلى أي مدى ساهمت هذه النسخة من تغيير نشاط التحكيم في المملكة؟الرجاء تحديد الاختيار المناسب	5 stage ranking from highly improved to significantly worsened	Select Option	Rank value 1 (highly improved) to 5 (significantly worsened). 6 = Do Not Know
Q21b	Please provide a brief explanation of your answer here:	Free choice	Text string	
Section 5	End of survey follow-up question			
Q22a-d	If you would like to take part in a follow -up interview to discuss the issues raised in this survey further , then please provide your contact details in the box below . يسعدني عمل مقابلة معك لاحقاً لمناقشة ماذكر في الاستبانة ، فإذا كنت لاتمانع في عمل مقابلة معك تلي. هذه الاستبانة الرجاء ترك معلومات التواصل معك بالأسفل	Free choice	Text string	

Appendix III - Raw data from questionnaire survey

Ref	Go/No Go	Q1	Q2	Q3	Q4	Q5a	Q6	Q7	Q8a	Q9a	Q9b
1	1	1	61	3	Project Manager	1	30	5	3	1	
2	1	1	44	3	Project Manager	2	11	0	3	3	It will reduce time and cost over run
3	1	1	37	2	Project Manager	2	9	0	2	2	
4	1	1	60	1	Project Director	2	15	10	3	1	
5	1	1	60	1	Project Director	1	15	10	3	2	
6	0	1	52	3	Project Manager	1	13	2	2		
7	1	1	46	3	CEO	1	18	8	3	4	Going to the courts is always the first choice here
8	1	1	38	3	Project Engineer	1	11	5	3	4	
9	1	1	39	3	Projects supervisor	2	12	0	1	2	
11	1	1	38	2	Marketing	2	1	0	2	3	
12	1	1	39	2	Eng.	2	1	1	4	2	
13	1	1	42	2	Lawyer	1	10	10	1	1	
14	1	1	35	2	Engineer	2	8	8	2	1	
15	1	1	37	3	CEO	1	13	5	1	1	
16	1	1	38	3	Project manager	2	11	0	1	2	
17	1	1	35	1	Sr. Structural engineer	2	13	1	2	2	
20	1	1	36	3	Vice President	2	13	0	2	1	Win win situation
23	2	1	39	2	Supervisor	2	12	0	1	2	
24	1	1	38	3	Operation and Maintenance Manager	2	13	0	3	2	
25	1	1	40	2	Planing and study section Manager fo	2	14	3	2	1	
26	1	1	39	2	Premises manager	2	0	0	2	1	
27	1	1	36	2	Manager	2	13	0	3	4	
28	1	1	40	3	Lead civil Engineer	2	10	0	1	1	
29	1	1	28	2	Project Manager	2	5	0	1	5	
30	1	1	38	3	Contract management	2	6	0	1	1	
32	1	1	60	2	Engineering Manager	2	15	15	2	3	

Ref	Go/No Go	Q1	Q2	Q3	Q4	Q5a	Q6	Q7	Q8a	Q9a	Q9b
33	1	1	54	3	Construction manager	2	27	3	2	2	It is possible to refer to the specifications and conditions and solve the problem in a logical and friendly way
35	2	1	39	3	GM	2	3	0	2	1	
36	1	1	40	3	Computer engineer	2	1	0	3	2	
37	1	1	38	3	Project Engineer	2	6	0	2	2	
38	0	1	42	2	Manager	2	0	0	1		
39	2	1	42	3	Engineer	2	18	0	3	2	
40	1	1	30	3	Planning Engineer	2	0.6	0	2	2	
41	1	1	38	2	Lead Project Engineer	1	9	4	3	2	No one wants to go to the tough roads ending up with courts and more cost
43	1	1	42	3	Interface manager	1	7	6	2	2	
44	1	1	32	3	Maintenance section head	2	0	0	2	1	
45	1	1	33	3	Generating Engineer	2	1	0	1	1	Because of the delay in obtaining the fianl award
47	1	1	32	3	Project Engineer	2	3	0	1	1	
48	1	1	34	3	Regional Manager	2	3	0	1	1	
50	0	1	35	3	Civil Engineer	2	13	0	4		
51	1	1	45	3	QC Manager	2	10	5	4	2	We as Contractor needs access to approach CSD
52	0	1	33	2		2	1	0	3		
53	2	1	33	2	Engineer III	2	10	0.5	4	1	
55	1	1	38	2	CEO	2	12	0	2	2	
56	1	1	33	2	Maintenance Engineer	1	3	9	4	4	
57	1	1	40	1	University professor	2	10	0	1	2	
58	1	1	37	2	Expert Project Manager	1	10	6	2	2	
59	0	1	40	3	Facility manager	2	12	0	2		
60	1	1	35	3	Site Manager & Head of Operation	2	9	4	3	2	I prefer an amicable solution first, and the reason may be that the design and drawings are unclear or the way the system of work has changed. So to avoid any delay or extra cost might happen, we start with the amicable way to resolve the disputes then other alternatives mentioned in the contracts if we fail
62	1	1	40	2	Project Manager	2	6	0	2	3	
64	1	1	33	1	Manager	2	10	10	1	2	

Ref	Q10a	Q11a	Q12a	Q12b	Q13a	Q13b	Q14	Q15	Q16a	Q16b	Q16c	Q16d	Q16e
1	4	2	2		2		5	2	1	2	3	4	5
2	5	2	2		2		1	4	2	4	5	1	3
3	4	3	2		2		5	1	1	3	4	2	5
4	2	2	1		1		2	2	2	5	3	4	1
5	2	2	1		1		2	2	1	5	3	2	4
6													
7	3	3	1	A committee is chosen from the parties in the project to resolve internal disputes friendly. If it fails the parties shall go to arbitration or to the court.	1		1	1	4	5	3	2	1
8	4	2	1		1		2	1	5	3	1	2	4
9	3	2	1		2		2	2	1	4	3	5	2
11	2	3	1		2		1	3	2	3	4	5	1
12	2	2	2		2		2	2	2	1	3	4	5
13	5	4	1		2		1	4	4	1	5	2	3
14	3	2	2		2		5	2	3	4	2	5	1
15	2	2	2		2		5	1	4	5	3	2	1
16	3	3	2		2		3	2	4	1	2	5	3
17	2	3	2		2		5	1	4	1	2	3	5
20	3	2	2		2		5	1	3	5	1	4	2
23	2	2											
24	2	2	2		2		5	1	2	4	5	3	1
25	3	3	2		2		2	2	3	5	1	4	2
26	2	1	2		2		5	1	3	1	4	2	5
27	2	2	2		2		5	2	4	5	2	3	1
28	4	3	2		2		5	1	1	3	4	2	5
29	5	4	2		2		5	3	2	3	4	5	1
30	2	2	2		2		3	2	3	2	5	4	1
32	4	3	1		2		5	4	4	2	3	5	1

Ref	Q10a	Q11a	Q12a	Q12b	Q13a	Q13b	Q14	Q15	Q16a	Q16b	Q16c	Q16d	Q16e
33	4	3	1	There are in some contracts with international contractors	2		1	2	4	1	5	3	2
35	3	3											
36	2	2	2		2		2	3	3	4	2	1	5
37	2	3	1		2		5	2	1	2	5	4	3
38													
39	1	3											
40	3	3	2		2		5	1	4	3	1	2	5
41	2	2	1	A committee formed from different internal organizations to review the dispute and decide on the eligibility	2		2	2	1	2	4	5	3
43	2	1	2		2		5	4	2	3	1	4	5
44	2	2	2		2		1	1	2	4	3	1	5
45	4	2	2		2		4	2	3	5	4	2	1
47	3	2	2		2		5	1	1	2	3	4	5
48	2	3	1		2		3	1	4	5	3	2	1
50													
51	3	2	2	No one has been briefed so far	2	No one has informed	5	2	1	2	5	3	4
52													
53	1	1											
55	4	3	2		2		5	2	2	4	1	5	3
56	2	2	2		2		5	2	1	3	2	4	5
57	2	2	2		2		5	2	4	3	5	2	1
58	4	3	2		2		5	2	1	5	4	3	2
59													
60	3	3	1	In some government departments it has happened recently to try to get projects moving	2		3	1	3	1	2	5	4
62	1	2	2		2		5	1	5	3	1	2	4
64	3	4	2		2		3	3	5	2	1	4	3

Ref	Q17a	Q17b	Q18a	Q18b	Q18c	Q18d	Q18e	Q18f	Q19a	Q19b
1	2		10	7	7	5	9	6	2	
2	1	The normal process always happens like this and all contractors are within the client's classifications	7	8	8	5	9	7	5	Always litigation
3	1		5	6	7	4	8	5	3	
4	2									
5	2		8	7	7	6	6	6	2	
6										
7	2	This occurs in private projects by those with little experience in the field and has no technical management	8	9	5	8	9	5	3	Because the lack of parties 'culture about the efficiency of arbitration
8	2		5	5	5	4	5	5	2	
9	1		1	5	5	5	5	5	4	
11	4		3	5	3	2	2	1	3	
12	2		3	2	3	2	4	2	2	
13	4		10	5	3	7	8	6	2	
14	2	For government organizations, this is the rule.	1	7	5	8	6	7	3	Depends on client
15	1		8	8	7	6	8	5	4	
16	2		8	5	4	7	5	5	2	
17	2		3	5	1	1	7	4	4	
20	1	Especially in the Government procurement law	1	2	2	10	4	10	4	
23										
24	1	In government business often	5	9	4	7	9	6	2	
25	2									
26	2									
27	2		8	10	7	9	9	9	4	
28	2									
29	2		3	5	5	1	1	2	4	
30	3		4	5	5	5	4	7	2	
32	1		4	7	5	6	4	6	3	

Ref	Q17a	Q17b	Q18a	Q18b	Q18c	Q18d	Q18e	Q18f	Q19a	Q19b
33	1	This is what is stipulated by the competition and tender regulations issued by the Ministry of Finance	3	9	9	8	9	9	4	Doesn't exist at the moment
35										
36	2	God	2	2	4	6	6	5	3	
37	2		2	5	5	6	5	5	3	
38										
39										
40	2		5	5	5	5	5	5	3	
41	2		3	5	3	3	7	7	1	
43	2		6	8	9	8	6	7	1	
44	1		1	5	5	5	5	5	3	
45	1		1	5	1	5	1	5	3	
47	1		1	1	1	1	1	5	2	
48	2	.	3	3	2	10	3	2	3	
50										
51	1	L1 has been given preference	3	3	5	3	9	5	2	Agreed
52										
53										
55	3		5	8	9	10	6	6	3	
56	2		5	5	1	5	5	5	2	
57	1		1	5	5	5	1	5	3	
58	2		8	5	5	5	5	5	3	
59										
60	1	Some departments put performance indicators in order to save the projects' cost. Unfortunately, it becomes common that the cheapest in tendering will be selected regardless its quality								
62	3		2	2	2	2	5	2	1	
64	1		2	3	4	4	5	6	3	

Ref	Q20a	Q20b	Q21a	Q21b
1	5		6	
2	4		6	
3	2		6	
4				
5	2		2	
6				
7	3			Because it explained the arbitration mechanism and the easiness of the steps, and because it had made great acknowledgements of the arbitration role
8	3		3	
9	3		6	
11	3		6	
12	2		2	
13	4		1	
14	3		6	
15	2		2	
16	3		6	
17	3		6	
20	4		6	
23				
24	3		6	
25				
26				
27	2		6	
28				
29	3		6	
30	2		1	
32	3		1	

Ref	Q20a	Q20b	Q21a	Q21b
33	3			We are at the beginning and the contracts still do not include arbitration clauses
35				
36	2		2	
37	3		6	
38				
39				
40	3		6	
41	3		6	
43	2		6	
44	4		6	
45	5		6	
47	3		6	
48	3		3	
50				
51	1		1	
52				
53				
55	3		6	
56	3		6	
57	3		6	
58	4		2	
59				
60				
62	3		6	
64	4		3	

Appendix IV – Interview questions

PLYMOUTH UNIVERSITY
FACULTY OF SCIENCE AND ENGINEERING
CONSENT TO PARTICIPATE IN RESEARCH PROJECT

Name of Principal Investigator: **Sultan Alsofyani**

Title of Research

**Culture in the construction industry of Saudi Arabia, disputes and the
arbitration process**

Brief statement of purpose of work

Aim

This research will investigate links between disputes on construction projects in Saudi Arabia and the cultures that surround them. It will deepen current levels understanding of the role that cultures plays in the evolution of project disputes. In addition, the research will explore the role that arbitration plays in the resolution of disputes on construction projects, assessing how the arbitration process can be harnessed to apply new learning about cultures, in a manner that may help to mitigate the frequency and severity of disputes on projects more generally.

Objectives

- Review academic literature to assess current levels of understanding about construction industry culture and how it is linked to the evolution of disputes on projects.
- Review systems used for the resolution of construction disputes, with a specific focus on arbitration and the arbitration system used in Saudi Arabia.
- Compile data about construction industry disputes in Saudi Arabia, with a view to deepen understanding of links between the evolution of disputes and construction industry culture.
- Propose how newly developed understanding of links between the evolution of disputes and construction industry culture can be incorporated into the arbitration system to mitigate the frequency and severity of future disputes in the construction industry

Ethical issues:

The objectives of this research have been explained to me.

I understand that I am free to withdraw from the research at any stage, and ask for my data to be destroyed if I wish.

I understand that my anonymity is guaranteed, unless I expressly state otherwise.

I understand that the Principal Investigator of this work will have attempted, as far as possible, to avoid any risks.

Under these circumstances, I agree to participate in the research.

Name:

Signature: Date:

Section 1 – Background data

Gender Male/Female

Age _____ years old

Highest educational qualification _____

Official job title _____

Official role in the resolution of disputes on construction projects in Saudi Arabia Yes / No

Score for level of awareness of the Arbitration process in Saudi Arabia. (1=very low and 5=very high), _____ score

Years working in Saudi Arabia _____ years

Years working in the resolution of disputes in Saudi Arabia_ _____ number

Section 2 – Culture Questions

D. Culture has been a subject of study for many decades and researchers have revealed many different ways in which cultural frameworks within societies, industries and organisations define the shared values, basic assumptions and beliefs held by individual in those societies, industries and organisations (Deal and Kennedy 1982, Dawson 1992, Hofstede 2005, Obeidat et al. 2012, to name just a few).

In your opinion, how well studied is the cultural framework that shapes the culture of the construction industry in Saudi Arabia and what aspects of the cultural framework are most in need of further study?

E. Rameezdeen and Gunarathna (2012) identified four organisational culture types;

Clan culture - Participation and openness are the main characteristics in this organisational culture, as such the culture aims to involve everyone in the organisation's activities and decisions. Rewards are based upon group performance rather than individual performance.

Adhocracy culture – The culture is focussed on the growth of the organisation, mainly by encouraging innovation and adaption.

Market culture – In this culture, efforts are directed to the maximisation of business efficiency, improving levels of productivity and profit.

Hierarchy culture – This culture focusses on compliance with rules and respect for roles in the organisation, often prioritising the bureaucratic process within the organisation.

From your perspective, how well do these cultural typologies map onto Saudi Arabian construction companies and can an understanding of these typologies reveal lessons about the development and resolution of disputes on construction projects in the country?

- F. Schwebel (2010) argued that the culture on construction projects in Saudi Arabia underwent a significant shift after a dispute on a large oil project in 1958. The dispute involved the Arabian American Oil Company (ARAMCO) rights to explore and the produce crude oil in the Kingdom of Saudi Arabia.

From your experience, how has the legacy of the ARAMCO case influenced the culture on construction projects in Saudi Arabia and has it helped or hindered the ability of the industry to reduce the level of conflict on construction projects in the country?

- G. The Global Leadership Organisational Behaviour Effectiveness (GLOBE) project looked at culture from a leadership perspectives (House et al. 2002). The research programme sought to understand how leaders affect and are affected by an organisation's culture and it identified nine dimensions to an organisational culture linked to leadership:

- i. **Uncertainty avoidance** : The level to which leaders of organisations avoid uncertainty to lessen the changeability of the future.
- ii. **Power distance**: The level to which leaders of organisations believe that power should be shared.
- iii. **Collectivism 1**: The extent to which leaders encourage cooperative distributions of resources.
- iv. **Collectivism 2**: The extent to which leaders are expected to balance loyalty to their families against loyalty to the organisation.
- v. **Gender egalitarianism**: The level to which leaders of the organisations reduce gender role differences.
- vi. **Assertiveness**: The degree to which leaders are aggressive in social relationship.
- vii. **Future orientation**: The level to which leaders plan for the future.
- viii. **Performance orientation**: The extent to which leaders of organisations reward group members for their performance.
- ix. **Human orientation**: The degree to which leaders rewarded others for their honesty and fairness..

In your opinion, to what extent do the GLOBE dimensions of organisational cultures reflect culture in the construction industry company leadership in Saudi Arabia and which of the dimensions are most dominant in shaping the culture of construction organisations in the country?

Section 3 – Questions about disputes on construction projects

A. There are numerous reasons why a dispute may arise on a construction project.

Three commonly cited reasons include:

- Work is not finish on time.
- Payments to parties are delayed.
- Changes are made to the project scope during construction.

In your opinion, what are the most common reasons that lead to disputes on construction projects in Saudi Arabia and do you believe that the reasons are changing or may change in the future? How is culture linked to these reasons?

B. All disputes on construction projects can be resolved amicably, if the parties are willing. Amicable methods of resolving disputes may involve conciliation and/or mediation.

In your experience, what percentage of disputes on construction projects are resolved using amicable methods and which methods are most common/effective? Is there a cultural link to this situation?

C. When amicable methods to resolve disputes fail, the parties may proceed to adjudication, litigation or arbitration.

In your experience, what percentage of disputes that proceed to adjudication, litigation or arbitration s are resolved using arbitration and how do other option compare to arbitration? What role has culture played in the creation of this position?

D. Some evidence from the literature suggests that disputes between the main parties on construction projects either stem from or involve parties lower down the supply chain.

In your opinion, what evidence is there that disputes on construction projects in Saudi Arabia stem from or involve parties lower down the supply chain and how is this set to change in the future? Is this a result of a culture in the industry?

Section 4 – Questions about arbitration

A. Disputes that involve adjudication, litigation and/or arbitration are sometimes criticised for

being slow to achieve results.

How effective and efficient do you believe the adjudication, litigation and arbitration processes are in resolving disputes on construction projects in Saudi Arabia? Do cultures help or hinder the process?

B. Arbitration law in Saudi Arabia was recently amended (in 2012).

What do you think was the main purpose for making the amendments and have the changes been effective in achieving that purpose? Has the culture in the industry changed?

C. Looking specifically at how the Arbitration law is applied on construction projects in Saudi Arabia.

Do you believe that the arbitration law in Saudi Arabia is effectively applied to resolve disputes on construction projects and how does its use differ for public sector and private sector project disputes? Is the culture different in different sectors of the industry?

D. Looking to the future of dispute resolution, using arbitration, on construction projects in Saudi Arabia.

Do you consider that any further changes are needed in relation to the Arbitration law in Saudi Arabia and the arbitration process to make it work more effectively in the future and why do you hold that view? Do cultures need to change?

Section 5 – Questions about culture, disputes and arbitration

A. The major premise for this research is that an understanding of links between the evolution of disputes on construction projects and cultures that predominate in the industry can be used as basis for proposing changes to the arbitration system, in an effort to mitigate the frequency and severity of future disputes in the construction industry.

What do you think of the idea that an understanding of links between the evolution of disputes on construction projects and cultures that predominate in the industry is a valid basis for proposing changes to the arbitration system and could it be effective in mitigating the frequency and severity of future disputes in the construction industry?

Appendix V – Sample of processed interview transcript

Interview 17 – P17 (Arbitrator)

Q2A: How culture links to disputes

P17: Unfortunately, there is a big issue about disputes generally, especially the good faith concept. The contractor and the client do not write enough details in the contract documents, and they do not give it enough attention. That is because of the trust between them at the beginning, and the good faith principle. The community culture in SA stems from this trust, and this is Islamic culture, from a very long time ago. The Muslim man should be honest, and that is why they trust each other. But the practice is totally different. For example, 40 years ago, the judge in court barely participated in a case, because people at that time did not get to the court. People resolved their disputes by Sulh (amicable way), both commercial and non-commercial disputes. I also believe that, due to this reason, people do not document their contractual agreements in a proper way and in good detail. It is because the culture is of dealing with each other in good faith. Previously, the culture was better because people were more friendly and coped well with each other. Now, people are upset when a dispute goes to arbitration or court, and their relationship comes to an end, even for future jobs.

Q2B: Lessons from culture about causes of disputes

P17: We have cases involving big companies, who claim their rights in disputes. Unfortunately they cannot show solid evidence for 2 reasons; either they do not have enough documents to support the case or the lawyer who represents a certain company does not know what documents are required from his client to win the case. Therefore, big companies lose their dispute cases due to a lack of supporting documentation. The main problem in SA is that you cannot specify a certain culture in each area of the country. We have engineers and labourers from around the world, some of them are Arabs, and some are not. Each group represents its own culture. When arguments happen in the field, a dispute will arise due to the different understandings from the different cultures. I would also say that a common engineering language is missing, when it comes to technical terminologies.

Q2C; Legacy of ARAMCO case

P17: The system said that arbitration was allowed in governmental projects if the Prime Minister (the King of Saudi Arabia) approved it. What happened in the Saudi Aramco case was an injustice for the Saudi Government, because the contract said that in the case of a dispute, the governing law is Sharia law and that did not happen. They chose international arbitrators who do not understand the Sharia law and they stated that there is nothing in Sharia law that can help resolve disputes in the oil and gas industry. They decided to apply a law related to the oil industry. What happened is totally against what the contract stated, but because of their power and authority, they ignored what is written in the contract. But generally, this case has nothing to do with the first arbitration law issued in 1983, especially in relation to commercial arbitration.

Q2D: Leadership links to culture

P17: We need to differentiate between 2 main things; the work itself is completely different from the legal documents. Most organizations here do not have legal departments to follow the legal work professionally. One of the legal department tasks is to monitor disputes from the beginning. To start the communication and documentation process. If we take the example of international companies, they pay attention to these details, and they report and document every single dispute and its journey. They sometimes record the weather condition daily as it might delay the project even for a few weeks.

Section 3

Q3A: Common reasons for disputes

P17: The most common one, as I said, is linked to the good faith agreement between the parties, which covers most of the other reasons. The contractor believes that, if he delayed the project, the client would understand and consider that delay kindly, but in practice, that does not happen. There is high risk on construction projects, and most of the time, the risk is not assessed and the forward planning to mitigate it, is missing. I still emphasize the link to the good faith principle.

Q3B: Use of amicable methods to resolve disputes

P17: The Sulh is common here. Mediation is kind of the amicable way, but it is not applied here in SA. The principle of Sulh is related to the local culture, and in Sulh, one of the parties offers a concession to reach a reasonable agreement with the other party. It

depends on what is written in the contract. Previously, almost all contracts included the court option only, in the last 8- 10 years the arbitration clause has been included.

Q3C: Percentage of disputes proceeding to arbitration

P17: Generally yes, because the arbitration process is quicker and private, especially if the parties are concerned about privacy. Which is different from the court process.

Q3D: Disputes involving the supply chain

P17: The party responsible for the client is the main contractor, subcontracts are not his {the client] responsibility. Unless the client specifies a certain supplier and the supplier deliver materials later than expected. In this case, the main contractor will blame the client, but this rarely happens.

Section 4

Q4A: Effectiveness of arbitration and litigation

P17: I personally disagree with one of the clauses, which is about the chairman of the arbitration tribunal. He should have a bachelor degree in either Sharia or law. If there is a pure technical case and 2 of the arbitrators have different opinions, then the chairman will intervene. The arbitration law says that if the arbitrators in the arbitration tribunal do not agree, they will choose a fourth arbitrator to give a final decision. In fact, we do not need this extra level of arbitration, and it will make the arbitration time longer, and the cost will increase for sure. In some cases, I am the only engineer on an arbitration committee. This part of the arbitration law is against international arbitration practice, as we are the only country, to my knowledge, which puts this condition on the chairman of the arbitration tribunal. I believe it should return to the disputants to choose the arbitrators for their case. In terms of effectiveness, if the case is purely engineering-based and all the arbitrators are lawyers, they will have to take technical expert advice, as the courts do. Sometimes they do not understand the technical terminology in the report itself, which will affect the arbitration's efficiency.

Q4B: Purpose of changes to Arbitration Law

P17: The changes made were mainly to keep us up to date with international arbitration law, as trade between Saudi Arabia and the rest of the world has grown.

Q4C: Effectiveness of Arbitration Law

P17: I believe the condition of the chairman's background should change, and anyone who is an expert in his field can be a chairman of the arbitration tribunal. One more thing, they have not issued the executive regulations for the arbitration law yet, despite the arbitration law itself being issued in 2012. There is a conflict of responsibilities; the Ministry of justice thinks they are responsible for issuing it while the Ministry of commerce seeks the same right.

Q4D: Further changes to Arbitration Law is needed

P17: I don't think so, because lawyers are dominating the legal process. We do have a committee to review the arbitration law, but all of the committee members are lawyers and judges. You can imagine how impossible it is to change in these conditions.

Section 5

Q5A: Proposals to mitigate level of disputes

P17: Spread awareness and knowledge about arbitration and teach organizations and ministry officials about the arbitration process and how effective it is. One idea is to create a team, from the Saudi Arbitration Centre, to visit ministries and big organizations and deliver sessions about arbitration. The centre should set criteria for the accreditation of arbitrators.

Appendix IV – Ethical approval form

PLYMOUTH UNIVERSITY FACULTY OF SCIENCE AND ENGINEERING

Research Ethics Committee

APPLICATION FOR ETHICAL APPROVAL OF RESEARCH INVOLVING HUMAN PARTICIPANTS

All applicants should read the guidelines which are available via the following link:

<https://staff.plymouth.ac.uk//scienv/humanethics/intranet.htm>

This is a WORD document. Please complete in WORD and extend space where necessary.

*All applications must be word processed. Handwritten applications **will** be returned.*

Postgraduate and Staff must submit a signed copy to SciEngHumanEthics@plymouth.ac.uk

Undergraduate students should contact their School Representative of the Science and Engineering Research Ethics Committee or dissertation advisor prior to completing this form to confirm the process within their School.

School of Computing, Electronics and Mathematics undergraduate students – please submit to SciEngHumanEthics@plymouth.ac.uk with your project supervisor copied in.

1. TYPE OF PROJECT

1.1 What is the type of project?

Applicant	Type	Put X in 1 only
STAFF	Specific project	
	Thematic programme of research	
	Practical / Laboratory Class	
POSTGRADUATE STUDENTS	Taught Masters Project	
	M.Phil / PhD by research	X
UNDERGRADUATE STUDENTS	Student research project	

	Practical / Laboratory class where you are acting as the experimenter	
--	---	--

2. APPLICATION

2.1 TITLE of Research project
Culture in the construction industry of Saudi Arabia, disputes and the arbitration process
2.2 Name, telephone number, e-mail address and position of applicant for this project (plus full details of Project Supervisor for postgraduate and undergraduate students)
<p><u>Lead person for the project:</u></p> <p>Name: Sultan Alsofyani</p> <p>Telephone number: 07470163988</p> <p>Email address: sultan.alsofyani@plymouth.ac.uk</p> <p>Position: PhD student</p> <p><u>Project supervisors:</u></p> <p>Name: Dr Andrew fox</p> <p>Telephone number: 01752 586120</p> <p>Email address: Andrew.fox@plymouth.ac.uk</p> <p>Position: Director of Studies</p> <p>Name: Mr Michael Miles</p> <p>Telephone number: 01752586138</p> <p>Email address: M.Miles@plymouth.ac.uk</p> <p>Position: Second supervisor</p> <p>Name: Dr Nabil Abbas</p> <p>Telephone number: 00966505605648</p>

Email address: nabilmabbas@gmail.com

Position: Third supervisor

2.3 General summary of the proposed research for which ethical clearance is sought, briefly outlining the aims and objectives (no more than 200 words)

Aim

This research will investigate links between disputes on construction projects in Saudi Arabia and the cultures that surround them. It will deepen current levels understanding of the role that cultures plays in the evolution of project disputes. In addition, the research will explore the role that arbitration plays in the resolution of disputes on construction projects, assessing how the arbitration process can be harnessed to apply new learning about cultures, in a manner that may help to mitigate the frequency and severity of disputes on projects more generally.

Objectives

- Review academic literature to assess current levels of understanding about construction industry culture and how it is linked to the evolution of disputes on projects.
- Review systems used for the resolution of construction disputes, with a specific focus on arbitration and the arbitration system used in Saudi Arabia.
- Compile data about construction industry disputes in Saudi Arabia, with a view to deepen understanding of links between the evolution of disputes and construction industry culture.
- Propose how newly developed understanding of links between the evolution of disputes and construction industry culture can be incorporated into the arbitration system to mitigate the frequency and severity of future disputes in the construction industry.

2.4 Physical site(s) where research will be carried out

The research will be conducted in Kingdom of Saudi Arabia

2.5 Does your research involve external institutions (e.g. other university, hospital, prison etc. see guidelines)

Delete as applicable: **No**

2.5a If yes, please give details:

2.5b If yes, you must provide letter(s) from institutional heads permitting you to carry out research on their clients, and where applicable, on their sites(s). Are they included?

Delete as applicable: **N/A**

If not, why not?

2.6 Start and end date for research for which ethical clearance is sought (NB maximum period is 3 years)

Start date: 1st Dec 2017 End date: 30th June 2018

2.7 Has this same project received ethical approval from another Ethics Committee?

Delete as applicable: **No**

2.7a If yes, do you want Chair's action?

Delete as applicable: **N/A**

If yes, please include other application and approval letter and STOP HERE. If no, please continue

3. PROCEDURE

3.1 Describe (a) the procedures that participants will engage in, and (b) the methods used for data collection and recording

In this project the participants will be engaged in a questionnaire survey or a structured interview.

3.1a If surveying or interviewing, you must include your questionnaire(s) and interview schedule(s).

Are these attached:

Delete as applicable: **Yes**

3.2 How long will the procedures take? Give details

The questionnaire survey may take 20minutes to complete and the interviews may take 60mins to complete

3.3 Does your research involve deception?

Delete as applicable: **No**

Please explain why the following conditions apply to your research:

3.3a Deception is completely unavoidable if the purpose of the research is to be met

3.3b The research objective has strong scientific merit

3.3c Any potential harm arising from the proposed deception can be effectively neutralised or reversed by the proposed debriefing procedures

3.3d Describe how you will debrief your participants

4. BREAKDOWN OF PARTICIPANTS

4.1 Summary of participants

Type of participant	Number of participants
<i>Non-vulnerable Adults</i>	180
<i>Minors (< 16 years)</i>	
<i>Minors (16-18 years)</i>	
<i>Vulnerable Participants</i>	
TOTAL	180

4.2 How were the sample sizes determined?

The sample will be selected as the following:

The sample will include two main groups:

1. **Interviews with Arbitrators** – Engaged in the resolution of disputes on construction projects in Saudi Arabia (30 number)
2. **Questionnaire survey of parties to construction disputes** – Representatives of clients, contractors and consultants involved in disputes on construction projects in Saudi Arabia (150 number)

4.3 How will subjects be recruited?

1. **Arbitrators** - A shortlist of potential interview subjects will be developed from the register of Arbitrators held by the Jeddah Chamber of Commerce and Industry and from the Saudi Arabia Council of Engineers. Interviews will take place in the participant's office at their place of work.
2. **Parties to construction disputes**– Interviews with Arbitrators will be used to identify a number of case studies for more detailed analysis. A shortlist of potential participants for the survey will be developed from the case study analysis. Companies will be contacted by email and by telephone, asked to verify their willingness to engage with the research and to nominate a representative to be included in the survey.

4.4 Will subjects be financially rewarded? If yes, please give details.

No

5. NON-VULNERABLE ADULTS

5.1 Are some or all of the participants non-vulnerable adults?

Delete as applicable: **Yes**

5.2 Inclusion / exclusion criteria

1. **Arbitrators** - Must have been engaged in the resolution of disputes on construction projects in Saudi Arabia.
2. **Parties to construction disputes**– Must be able to represent parties to a dispute on a construction project in Saudi Arabia

5.3 How will participants give informed consent?

Questionnaire survey participants will be provided with an information sheet and interview participants will be asked to sign a consent form.	
5.4 Consent form(s) attached	
Delete as applicable:	Yes
If no, why not?	
5.5 Information sheet(s) attached	
Delete as applicable:	Yes
If no, why not?	
5.6 How will participants be made aware of their right to withdraw at any time?	
It will be explained on both the information sheet and on the consent form.	
5.7 How will confidentiality be maintained, including archiving / destruction of primary data where appropriate, and how will the security of the data be maintained?	
<ul style="list-style-type: none"> • Maintaining confidentiality - no names of individuals or organisations will be published in the thesis or in any publications associated with this research* • Archiving – all data will be stored in a secure office on the Plymouth University campus • Destruction of primary data – There is no plan to destroy the data after the end of the PhD • Security of the data – data will not be stored online and only stored on password protected University computers <p>*Note: Where requested by the interviewee or by the survey respondent the researcher will sign the non-disclosure agreement to guarantee the anonymity of individuals and companies.</p>	

6. VULNERABLE PARTICIPANTS (Minors <18 years, and Vulnerable Adults)

6.1 Are some or all of the participants:	
<i>Under the age of 16?</i>	No
<i>Between the ages of 16 and 18?</i>	No
<i>Vulnerable adults?</i>	No

If no to all, please proceed to section 7.

If yes, please continue and consult guidelines for working with minors and/or vulnerable groups.

6.2 Describe the vulnerability (for minors give age ranges)

6.3 Inclusion / exclusion criteria

6.4 How will minors and vulnerable adults give informed consent?

Please delete as applicable and explain below (See guidelines)

For minors < 16 only:

Opt-in

Opt-out

If opt-out, why?

6.5a Consent form(s) for minor/vulnerable adult attached

Delete as applicable:

No

Yes

If no, why not?

6.5b Information sheet(s) for minor/vulnerable adult attached

Delete as applicable:

No

Yes

If no, why not?

6.6a Consent form(s) for parent / legal guardian attached

Delete as applicable:

No

Yes

If no, why not?

6.6b Information sheet(s) for parent / legal guardian attached		
Delete as applicable:	No	Yes
If no, why not?		
6.7 How will parent/legal guardians, minors and/or vulnerable adults be made aware of their right to withdraw at any time?		
6.8 How will confidentiality be maintained, including archiving / destruction of primary data where appropriate, and how will the security of the data be maintained?		
Investigators working with children and vulnerable adults legally require clearance from the Disclosure and Barring Service (DBS)		
6.9 Do ALL experimenters in contact with children and vulnerable adults have <u>current</u> DBS clearance? Please include photocopies.		
Delete as applicable:	No	Yes
If no, explain		

7. PHYSICAL RISK ASSESSMENT

7.1 Will participants be at risk of physical harm (e.g. from electrodes, other equipment)? (See guidelines)	
Delete as applicable:	No (Go to Q8)

7.1a If yes, please describe

7.1b What measures have been taken to minimise risk?

7.1c How will you handle participants who appear to have been harmed?

8. PSYCHOLOGICAL RISK ASSESSMENT

8.1 Will participants be at risk of psychological harm (e.g. viewing explicit or emotionally sensitive material, being stressed, recounting traumatic events)? (See guidelines)

Delete as applicable: **No (Go to Q9)**

8.1a If yes, please describe

8.1b What measures have been taken to minimise risk?

8.1c How will you handle participants who appear to have been harmed?

9. RESEARCH OVER THE INTERNET

9.1 Will research be carried out over the internet?

Delete as applicable: **Yes (Go to Q10)**

9.1a If yes, please explain protocol in detail, including how informed consent will be obtained, procedures concerning the right to withdraw and how confidentiality will be

maintained. Give details of how you will guard against abuse by participants or others (see guidelines)

The questionnaire survey will be conducted only using a University approved survey platform (SurveyMonkey).

Informed consent will be obtained by requiring respondents to click to confirm that they have read and agree to the details on the research information sheet before they start the survey

The right to withdraw will be explained on the information sheet.

9.1b Have you included the online version of questionnaire and information/consent form? This should be as close to the format which will be viewed on line as possible.

Delete as applicable: **Yes**

10. CONFLICTS OF INTEREST & THIRD PARTY INTERESTS

10.1 Do any of the experimenters have a conflict of interest? (See guidelines)

Delete as applicable: **No (Go to Q11)**

If yes, please describe

10.1a Are there any third parties involved? (See guidelines)

Delete as applicable: **No**

If yes, please describe

10.1b Do any of the third parties have a conflict of interest?

Delete as applicable: **No**

If yes, please describe

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11. ADDITIONAL INFORMATION

11.1 Give details of any professional bodies whose ethical policies apply to this research
None
11.2 Please give any additional information that you wish to be considered in this application
All survey questions will be translated into Arabic before being issued by the researcher.

12. ETHICAL PROTOCOL & DECLARATION

To the best of our knowledge and belief, this research conforms to the ethical principles laid down by the University of Plymouth and by any professional body specified in section 10 above.

This research conforms to the University's Ethical Principles for Research Involving Human Participants with regard to openness and honesty, protection from harm, right to withdraw, debriefing, confidentiality, and informed consent.

Sign below where appropriate:

STAFF / RESEARCH POSTGRADUATES

	Print Name	Signature	Date
Principal Investigator:	Sultan Alsofyani		2.11.17
Other researchers:	Nil		

Staff and Research Postgraduates should email the completed and signed copy of this form to scienghumanethics@plymouth.ac.uk

UNDERGRADUATE STUDENTS

	Date	Print Name	Signature	
Student:		Sultan Alsofyani		23/11/17
Director of Studies		Andrew Fox		23/11/17

Undergraduate students should pass on the completed and signed copy of this form to their School Representative of the Science and Engineering Research Ethics Committee.

	Signature	Date
School Representative on Science and Engineering Faculty Research Ethics Committee	_____	_____

Faculty of Science and Engineering Research Ethics Committee List of School Representatives

School of Geography, Earth and Environmental Sciences Dr Sanzidur Rahman
Dr Kim Ward

School of Biological and Marine Sciences Dr Gillian Glegg (Chair)

Dr Victor Kuri

School of Biomedical and Healthcare Sciences Dr David J Price

School of Engineering Dr Liz Hodgkinson

School of Computing, Electronics & Mathematics Dr Mark Dixon
Dr Yinghui Wei

External Representative Prof Linda La Velle

Lay Member Rev. David Evans