
Factors Causing Construction Litigation in Saudi Arabia

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The problem of litigation and disputes in the construction sector is a major impediment to a country's development goals. The purpose of this paper is to investigate the problem of high legal costs and long delays that arise due to litigation involving project owners, designers, contractors and other construction parties worldwide and in Saudi Arabia, as well as give recommendation according to the outcomes of this research. The causes of litigious behavior in Saudi Arabia and around the world were identified and documented; also the differences in litigation of the Saudi Arabian construction industry as compared to other countries were identified. Preliminary investigations revealed that there is some level of similarity in the nature of the causes. Thus, these causes were grouped into three main categories, which are expectation factors, communications factors and documentation factors. Further research based on existing literature showed that the practices used to minimize litigation in the construction industry were investigated. The following delivery processes were researched: Design-Build (DB) Delivery Method, Alliance Contracting, Construction Manager at Risk (CMAR), Best Value Model (BVM), Integrated Project Delivery (IPD), Public-Private Partnerships (PPP) and the Best Value Performance Information Procurement System (BV PIPS). Many of these delivery methods were found to have issues, which means the methods by observation do not seem to be the ideal solution to minimize litigation in the construction industry. The only delivery method found to have no litigation issues was the BV PIPS approach.

Keywords: Litigation, construction industry, Saudi Arabia, risks.

Introduction

Saudi Arabia is one of the largest exporters of oil and gas in the world. Consequently, the Saudi economy has experienced a boom, especially in the construction sector, which has seen a remarkable increase in activity from 1995 to 2015. Key trends in the Saudi construction sector include an increased government emphasis on expanding national infrastructure, such as roads, seaports, and airports. There is also an increased government focus on residential housing projects and buildings to address the shortage occasioned by an increasing population. Moreover, Saudi Arabia is experiencing a huge demand for construction services as evidenced by the dramatic increase in the demand for building materials and the number of new and ongoing projects in the country. Recently, the president of the Saudi Law Training Center, Majid Garoub (Hussin, 2014), stressed the need for high-quality engineering and legal aspects in construction projects in order to deal with the massive legal issues facing the sector in the Gulf region. Garoub warned that, if the litigation problem were not addressed, it could hamper economic development and government administration. The growing trail of contract litigations before the courts, may disrupt the judiciary sector and related services, such as transportation, health, education, and municipal services. Despite the opportunities presented by the recent trends in Saudi's construction sector, there are various challenges that must be resolved. Major problems facing construction projects in Saudi Arabia include complex conflicts arising due to different

construction methods and different contract specifications, among other issues, that lead to litigation. Litigation is problematic because it delays the completion of projects. A construction project is acknowledged as successful when completed on time, within the budget, and in accordance with specified quality specifications (Chan 2001). The purpose of this study was to examine the problems of the high legal cost and long delays that arise due to litigations involving construction projects in Saudi Arabia, to identify the causes of litigious behavior as compared to other countries, and to give recommendations to help the Saudi construction industry to improve.

Litigation in the Construction Industry

Litigation in construction projects may cause disputes with varying impact all over the world. For instance, litigation can lead to a cascade of financial consequences for the contractors and project owners. The parties may wind up in court. In other cases, calculating the impact of damages resulting from litigations may not be easy because, sometimes, contractor's costs or part of their compensation portion may be tied to multiple projects. Overall, the impact of litigations can include complex damage calculations that can result in various economic damages, including disruptions, relocation costs, compensation delays, escalation damages, extra work, acceleration, and even contractor termination. The cost impact of litigations includes both direct and indirect costs. Indirect costs include those spent in dispute avoidance, such as costs arising from project rework, cost to reputation, costs due to inefficiencies or delays, and firm organizational costs. Direct costs are the costs directly involved in the litigations, including court interventions and costs associated with alternative dispute resolution (ADR).

The legal environment influences construction projects in multiple ways. It has been found that the construction industry has the reputation of being adversarial and, paradoxically, a leader in both dispute occurrences and dispute resolution systems (McGeorge et al., 2007). The inability to complete construction projects on time and within budget is a major concern. This is especially important given that the construction industry is complex and comprised of a large number of parties, such as contractors, owners, consultants, and regulators (Enshassi, Mohamed, & Abushaban, 2009). Construction conflicts and litigation affect the interests of many stakeholders and reduce profits. Preliminary investigation shows that stakeholders have become increasingly dissatisfied with the legal methods of construction conflict resolution (Mitkus and Mitkus, 2014). Litigation may involve a wide range of issues, including contractor conduct such as allegations of bad faith, fraud, and deceit. Litigations may also involve allegations of material variations contrary to agreed terms of the contract as established in the procurement law, licensing, subcontracting, payments, or even the selection of other construction professionals, such as engineers and architects. Jaffer, Tharim, and Shuib, (2011) classified these factors of conflicts in construction projects into three categories: behavioral factors, contractual problems and technical problems.

Problem

Currently, over 10,000 projects in the Gulf Region are involved in legal disputes (Hussin, 2014). The primary problem associated with litigations in Saudi Arabia's construction sector is the high

legal cost and the time it takes to settle claims and disputes. Studies show that legal disputes in the construction sector in the Middle East take over a year (14.6 months) to resolve, an increase of 62%, compared to statistic referred to in 2012 (Sambidge, 2013). The Middle East also experiences disputes of high value, averaging \$65 million (Sambidge, 2013). In Saudi construction industry, the following issues with disputes are identified:

- Experts confirmed that the value of the issues construction contracts (in both public and private contractual disputes) amounted to, was more than \$800 million, noting that the size of these contracts is estimated to be 40% of the state budget (Alnomci, 2012).
- At a time when the Kingdom of Saudi Arabia is considered one of the biggest construction project markets in the Middle East, economic statistics estimated the projects that are still stalled are worth \$167 million, while the projects that have been cancelled have been estimated to have a value of \$196 billion, (Thunayyan, 2013).
- Saudi commercial disputes in the courts has increased in 2014 to 70% of which 80% constitute the construction sector and engineering disputes.
- Construction projects and contract for engineering conflicts accounted for 40% of the overall budget for Saudi Arabia. Also, judicial value of contracts to resolve disputes in engineering projects in Saudi Arabia amounted to \$3 billion (Alnomci, 2012).
- Judicial value of contracts to resolve disputes in engineering projects in Saudi Arabia amounted to \$7 billion (Abaas, 2015).

Research Questions

In order to achieve the aim of this study, the following research questions were proposed:

- What are the causes of disputes in construction industry?
- What are the characteristics of these causes of disputes?
- What are the potential solutions used to minimize disputes?
- What is the performance analysis of these solutions?

Methodology

The research method in this study was based mainly on a literature review of litigious behavior in construction projects all over the world. The methodology involves identifying and documenting the causes of litigious behavior in the construction industry worldwide. The literature search was performed on causes of litigation in the construction industry and included the following steps:

1. Identify and document the causes of litigious behavior.
2. Identify the differences between the causes of litigation in Saudi Arabia and other countries.
3. Identify causes of litigation in different construction delivery methods.

The first purpose of this literature search is to show the causes of construction litigation in Saudi Arabia and in the rest of the world, second, to identify if these causes also occur in the major construction delivery systems. The writer used different academic resources for this literature

search. The three major databases used by the researcher were ABI/Inform, EI Compendex, and Google Scholar.

Existing Causes of Litigious Behavior in Construction Projects

The researcher investigated the litigious behavior in the construction industry in different countries. The researcher then compared the main causes of litigation between these countries. In Saudi Arabia, one of the most insightful studies on the litigious behavior in Saudi Arabia (Mahamid, 2014), identified the main causes of micro (direct) level and macro (indirect) level disputes in residential building in Saudi Arabia. According to Mahamid, the top direct causes of disputes include delays in the progress of payments by owners, change orders, unrealistic duration of construction projects, labor inefficiency, and poor quality of completed construction work. Accordingly, the main indirect root causes of legal disputes are either poor or lack of sufficient communication between construction parties, inadequate experience on the part of the contractor, poor planning and project scheduling by the contractor, inaccurate estimation practices, and cash glitches during the construction phase (Mahamid, 2014). Indirect causes of legal disputes in Saudi construction projects include mistakes in design, qualifications of subcontractors, inspection delays, and violation of contract conditions. Further analysis of the documented causes of litigious behavior shows a common underlying problem: a lack of transparency in the delivery of construction projects.

On the other hand, In the United States, the main causes of litigious behavior in the construction sector include delays, project disruptions, and scheduling disputes (Genberg, Riggs, & Abraham, 2014). Another study on litigation in the United States was about the defects in the design and construction projects, which are usually associated with the contracting process. Other causes of litigious behavior include terminations, claims over the scope of construction projects, and compliance disputes that may or may not involve state, federal, and local regulations and laws (Genberg et al., 2014).

In Korea, the main causes of litigations include: differing site conditions, obstruction by local people, design errors and omissions, change order evaluations, double meaning in specifications, and excessive quantity of work (Acharya and Lee, 2006). Whereas, in the United Kingdom, construction litigations and claims arise due to claims over plans and specifications, disputes over drawing and submittals, change orders, differing site conditions, construction defects, and subcontractor substitution (Klinger, 2009). Moreover, other studies have been conducted regarding identifying the causes of dispute in construction industries in different countries in the worlds as it is shown in Table 1.

Table 1

Comparison of the main causes of litigation in different countries

Cause	Country	References
<ol style="list-style-type: none"> 1. Late payments by owners 2. Change orders 3. Unrealistic duration of construction projects 4. Labor inefficiency 5. Poor quality 6. Lack of sufficient communication 7. Inadequate experience of the contractor 8. Poor planning by the contractor 9. Inaccurate estimation practices 	Saudi Arabia	(Mahamid, 2014)
<ol style="list-style-type: none"> 1. Change orders 2. The owner applies penalty on contractor without conducting investigation of the delay reason 3. Lack of clarity in the contracts conditions 4. Site conditions 	Saudi Arabia	(Ghamdi, 2008)
<ol style="list-style-type: none"> 1. Lack of clarity in the drafting of contracts 2. Changing key people's responsibility 3. Increase in the number of vendors 	Saudi Arabia	(Abbas, 2005)
<ol style="list-style-type: none"> 1. Disputes over drawing and submittals 2. Change orders 3. Differing site conditions 4. Construction defects 5. Plans and specifications 	UK	(Klinger, 2009)
<ol style="list-style-type: none"> 1. Change the scope of work 2. Change of condition 	UK	(Hewitt, 1991)
<ol style="list-style-type: none"> 1. Deferring site conditions 2. Errors and omissions in design 3. Double meaning in specifications 4. Excessive quantity of work 5. Obstruction by local people 6. Change order 	Korea	(Acharya and Lee, 2006)
<ol style="list-style-type: none"> 1. Communications 2. Access to construction site 3. Access to materials 4. Changes of scope 5. Site conditions 	Australia	(Waldron, 2006)
<ol style="list-style-type: none"> 1. Change orders 2. Design issues 3. Quality issues 	USA	(Killian, 2003)
<ol style="list-style-type: none"> 1. Delays and disruptions on project 2. Design issues 3. Change of project scope 4. Termination claims 5. Compliance disputes 	USA	(Genberg et al., 2014)
<ol style="list-style-type: none"> 1. Lack of communication 2. Changes of site conditions 3. Change in the scope of work 4. Lack of predictability 5. Unrealistic expectations 6. Design issues 7. Contract documents 	Hong Kong	(Kumaraswamy, 1997)

1. Misunderstanding between the stakeholders 2. Lack of predictability	Netherlands	(Sykes, 1996)
1. Change the scope of work 2. Change in site conditions	Netherlands	(Heath, Hills, & Berry, 1994)

It is clearly seen that change orders and changing the scope of work are common litigation factors in most of the identified studies. These factors occur because each party is in a silo and cannot see the other stakeholder's performance, and once they have an issue of not meeting their expectations, the change order will be issued and they will likely have conflict. In Saudi Arabia, the construction industry is suffering from changing orders and lack of clarity in the contracts conditions issues. In addition, the literature research found only two major differences between the causes of litigation in Saudi Arabia and the rest of the world. They are the following:

1. Changing key personnel responsibilities.
2. Clients applying penalties on contractor without conducting investigation of the reason for the delays.

All of these factors shown in Table 1 create disputes and a litigation environment. In addition, most of the countries have common factors that cause litigation.

Discussion and Analysis

A critical analysis reveals some level of similarity in the nature of the causes as it is shown in Table 2. Overall, most of these causes could be categorized into three main categories, which are:

- Communication related factors.
- Expectation related factors.
- Documentation related factors.

Communication problems are prevalent in the construction industry due to its dynamic and fragmented nature. For instance, many stakeholders frequently operate in changing sets of relationships that are contractually binding. According to Hoezen, Reymen, and Dewulf (2006), the problem of communication relates to the nature of information processing, feedback, trust, and satisfaction with communication. The absence of these attributes can lead to conflicts and disputes, which lead to disruptions and delays. Poor communication can also lead to claims related to compliance, project scope, and termination claims, even if the parties agree to terminate building contracts (Aiyewalehinmi, 2013).

Table 2

Common causes of disputes in the construction industry

Cause Factor	Group	References
<ul style="list-style-type: none"> • Change orders / scope • Change in site conditions • Compliance disputes 	Expectation issues	(Mahamid, 2014), (Al-Ghamdi, 2007), (Klinger, 2009), (Hewitt, 1991), (Acharya and Lee, 2006), (Waldron, 2006), (Killian, 2003), (Genberg, Riggs, & Abraham, 2014), (Kumaraswamy, 1997), (Heath, Hills, & Berry, 1994)
<ul style="list-style-type: none"> • Lack of communication • Increase the number of vendors • Obstruction by local people • Changing key people’s responsibility • The owner applying penalty on contractor without conducting investigation of the delay reason 	Communication issues	(Mahamid, 2014), (Abbas, 2005), (Waldron, 2006), (Acharya and Lee, 2006), (Kumaraswamy, 1997), (Ghamdi, 2008)
<ul style="list-style-type: none"> • Inaccurate estimation practices • Lack of clarity in the contract’s conditions • Lack of clarity in the drafting of contracts • Plans and specifications • Errors and omissions in design • Design issues • Design and construction disputes • Design issues • Contract documents 	Documentation issues	(Mahamid, 2014), (Ghamdi, 2008) (Abbas, 2005), (Klinger, 2009), (Acharya and Lee, 2006), (Killian, 2003), (Genberg, Riggs, & Abraham, 2014), (Kumaraswamy, 1997)

Preliminary research shows that many factors influence communication, including the type and organization of the construction process. Transparency is inversely proportional to a lack of communication. Therefore, solutions that enhance transparency have the potential to improve communication in the sector. Transparency ensures openness and accuracy of information.

The second category is the expectation or misunderstanding, according to Mane and Pimplikar (2012), a dispute is defined as a misunderstanding between two parties. Consequently, one of the greatest challenges facing the construction sector is how to resolve misunderstandings or disputes. This is especially important because expectations can cause delays in payments by contractors, hence creating cash problems. Expectations can also affect the project planning process, leading to excessive work or change orders, which trigger litigations. Transparency and project misunderstandings are inversely proportional. Increasing transparency can help minimize misunderstandings because it creates an environment that facilitates communication and a culture of teamwork.

Documentation is the third category of disputes caused. In an ideal world, design and documentation provided for construction projects should be complete and unambiguous. However, contractors often receive incomplete and erroneous project documentation that takes time to resolve, hence causing delays or eliciting protracted legal processes. According to Tilley, Wyatt, and Mohamed (2004), the problem relates to the increase in documentation regarding registers for a massive number of architectural drawings and other documentation that increase

up to the end of the project. Documentation is important; however, its massive increase in construction projects may create conflicts among parties, leading to delays or litigations such as those associated with change orders, design errors, and other forms of disruptions. Increasing transparency can resolve problems arising due to increased documentation. Transparency would ensure that designers and contractors do not need to produce multiple documents. In addition, the construction industry involves extensive use of expertise at various levels. This expertise ranges from managerial skills to technical craft skills. Failure to utilize expertise can lead to deeper problems, with legal implications and consequences to the project completion. For instance, failure to use expertise may lead designers or architects to perform tasks of which they are not competent, causing an excessive quantity of work, obstruction of the project by local communities, or different forms of project claims. According to Sambasivan and Soon (2007), contractors should never take on jobs in which they do not have sufficient skills.

Litigious Behavior in Construction Delivery Systems

In the construction industry, there are efforts to address this problem by focusing on project delivery methods and practices that have become entrenched in transparency, accountability, and good governance. Recently, there has been increased scholarly interest in approaches such as Design Build (DB), Construction Manager at Risk (CM@R), Integrated Project Delivery (IPD), Alliance Contracting, Private-Public Partnerships (PPP), and Best Value Method (BVM). In this section, existing literature is reviewed in order to identify if dispute factors exist in the identified delivery methods. The main objective is to examine their flaws in terms of solving the problem of costly disputes and litigations in construction projects.

Design Build (DB)

In the DB delivery method, the contractor and architect serve as a single entity hired by the project owner in order to deliver a complete project. A single point of contact fosters improved communication, accelerates the delivery of projects, and minimizes adversarial roles. The DB approach suits highly sensitive construction projects with smaller user groups and minimal need for user reviews. With regard to solving litigious situations, this approach has elicited intense scholarly attention. Garner, Richardson, and Castro-Lacouture (2008) noted that DB represents the Best Value selection delivery of construction projects in terms of providing an owner with a single source of accountability, which eliminates lengthy litigious behavior. However, a lack of expertise and experience among participating firms may hamper these advantages and trigger conflicts of interest leading to litigations. Another potential cause of construction disputes using the DB method relates to its sophistication in that, if the project owners do not have full comprehension of the project concepts and scope, it may cause owner-instigated litigations. More importantly, DB does not allow checks and balances between architect and contractor, which may lead to conflicts and potential disputes. In a related study, Friedlander (n.d.) argued that the existence of a team comprised of a designer and contractor raises unique legal problems regarding their specific relationships, including questions of who serves as the owner and who becomes the subcontractor and whether the entity is a joint venture, a limited company, or a corporation. Further research showed that DB fails the transparency test due to potential conflicts

in the interpretation of the client's requirements, unclear responsibilities, and lack of confidence (Lam, Chan, & Chan, 2012).

Construction Manager at Risk (CM@R)

In CM@R, the construction manager (CM) and the design team work together to develop and estimate designs. The project owner can select a fee-based firm before completing design and bidding documents, based on experience. Cunningham (2005) established that, although the CM@R approach enhances transparency because of the open costs and fees, previous studies have established that adversarial relationships may develop if there is little collaboration between the CM@R firm and the designer on one hand, and the CM@R firm and the Commissioning Authority on the other hand. Jeelani, Al-Dosary, and Karthikeyan (2012) have established the same problem with CM@R, which may lead to complex conflicts and litigations that affect project delivery.

Integrated Project Delivery (IPD)

The use of IPD is based on the premise that it emboldens a collaborative process that exploits efficiency in the design and construction phases of projects (Cleves & Gallo, 2012). That is, IPD reduces conflicts and related litigations due to facilitation of early stakeholder participation, shared goals, and reduced exposure to liability (AIA California Council, 2007). O'Connor and Benson (2009) established that collaboration arrangements designed to enhance cooperation and eliminate litigious behavior in projects fail because of lack of trust (p. 11). The problem is that nearly 60% of alliances fail due to high dependency on familiarity and trust as opposed to contract terms, which also opens new avenues for litigations in the event of breaches. In a related study, Akintan and Morledge (2013) admitted that, although IPD increases information and knowledge sharing, it may not necessarily guarantee transparency and project success.

Alliance Contracting

One of the solutions proposed to eliminate or minimize conflicts, disputes and litigations involved in construction projects is the use of a model that emphasizes the principles of alliance contracting. The impetus of a strategic alliance is that it promises improved cooperation between parties in the construction industry, which can likely lead to reduced litigious behavior. Hampson and Kwok (1997) identified the potential pitfalls of alliance contracting include the lack of the relevant attributes that serve to facilitate transparency, such as the lack of commitment, poor cooperation and lack of communication.

Best Value Method (BVM)

The BVM emphasizes assessing various alternatives and selecting the solution that meets the best value over long-term project management. It has been defined as a process where quality and price factors influence the evaluation process in order to enhance the value and long-term performance of construction (Scott, Molenaar, Gransberg, & Smith, 2006). Although the BVM is a robust solution for enhancing successful completion of projects, it suffers certain limitations that may lead to lack of transparency and trigger litigious behavior. Some of the challenges attributed to this approach include the perception of favoritism when project teams consider

factors other than the confines of ordinary responsibility (Scott et al., 2006). The perception of favoritism may cause conflicts that later transform into litigations. In addition, bidder qualification in the BVM may tend to favor larger and experienced companies. This could be problematic because it can create conflicts among construction stakeholders, leading to adversarial relationships. More importantly, the subjectivity of performance evaluations in this approach may lead to dishonesty and lack of transparency in the bidding process. The common notion in existing literature is that BVM is most successful for projects that are less complex.

Private-Public Partnerships (PPP)

Growing evidence in recent years suggested that PPP could enhance partnerships and reduce cases of construction disputes and litigations. The idea is that PPP encourages good governance, accountability, and transparency. According to Ribeiro and Dantas (n.d.), although PPP promises benefits in terms of enhancing successful completion of projects in the construction sector, international experiences have shown various issues can affect the implementation of trust. The problem could be attributed to differences in the priority criteria used to manage stakeholder expectations and need for public and private sectors (Takim, 2009). In a recent study, Fombad (2014) demonstrated that PPPs in developing countries suffer from three main transparency and accountability issues: (a) complexity of legislation and policies, (b) transparency, and (c) monitoring of PPPs. Other issues related to transparency include nondisclosure, procurement irregularities, and corruption due to involvement of state agents with deep-rooted irregularities.

Best Value PIPS/PIRMS (Procurement Information Performance System/Performance Information Risk Management System)

The Performance Based Studies Research Group (PBSRG) at Arizona State University has been developing an approach that integrates into construction industry performance. This approach is called Best Value PIPS/PIRMS (Mselle et al., 2009). PBSRG has overcome industry problems in its prior applications in the United States, Canada, the Netherlands, and other countries. The following are some of the performance metrics with regards to Best Value PIPS/PIRMS implementations:

1. 98% of clients were satisfied and there was no vendor-caused cost deviation (PBSRG, 2010; Kashiwagi, 2009).
2. Vendors increased their profits up to 100% without increasing costs to the client (PBSRG, 2010; Kashiwagi, 2009).
3. 1,800+ projects tested worth \$6.4Billion USD (PBSRG, 2015)
4. Arizona State University adopted the change in paradigm with the Best Value environment for its dining services and bookstore management. It has saved them \$100 million since adopting Best Value (PBSRG, 2012).
5. The results from projects in the Netherlands showed their delivery time was accelerated by 25%. Time and cost spent on transactions were reduced by 50-60% for both vendors and clients (Kashiwagi et al., 2012).

Overall, the only delivery method system in construction industry that shows dominant results and has helped construction industry to improve its performance is PIPS\PIRMS. On the other

hand, the studies showed issues with DB, CM@R, BVM, IPD and Alliance Contracting. All of the issues that have been identified in literature in construction delivery system are related to the three identified categories that have been presented in this paper which are expectation factors, communication factors and documentation factors as it is shown in Table 4.

Table 3

Summary of issues in construction delivery systems

Type of delivery method	Issues of dispute	Reference
Design Build	<ul style="list-style-type: none"> Poor communication between architect and contractor creating room for conflict Sophisticated approach; Owner must have clear idea of project concept/scope Inexperience Contentions on responsibilities Unclear clients requirements 	<p>Garner <i>et al.</i>, 2008</p> <p>Friedlander, n.d</p> <p>Lam <i>et al.</i>, 2012</p>
Construction Manager at Risk	<ul style="list-style-type: none"> Little collaboration between designer and CM@R firm during design phase Little collaboration between Commissioning Authority and the CM@R firm 	Jeelan <i>et al.</i> , 2005
Integrated Project Delivery	<ul style="list-style-type: none"> Over reliance on trust and familiarity 	O'Connor <i>et al.</i> , 2009
Alliance Contracting	<ul style="list-style-type: none"> Lack of commitment Independent problem solving 	Hampson and Kwok, 1997
Best Value Approach	<ul style="list-style-type: none"> Perceptions of favoritism Subjectivity of performance evaluations 	Scott <i>et al.</i> , 2006
Public and Private Partnerships	<ul style="list-style-type: none"> Differences in priority criteria, needs and expectations between private and public stakeholders No-disclosure Corruption Procurement irregularities 	<p>Takim, 2009</p> <p>Fombad, 2014</p>
PIPS/PIRMS	<ul style="list-style-type: none"> No Issues were found 	

Table 4

Classification of issues based on its nature

Issue	Type of contract	Communication	Expectation	Documentation
Poor communication between architect and contractor	DB	X		
Sophisticated approach; Owner must have clear idea of project concept/scope			X	
Contentions on responsibilities			X	
Unclear clients requirements			X	
Little collaboration between designer and CM@R firm during design phase	Construction Manager at Risk	X		
Little collaboration between Commissioning Authority and the CM@R firm		X		
Over reliance on trust and familiarity	Integrated project delivery	X		

Lack of commitment	Alliance Contracting	X		
Independent problem solving		X		
Perceptions of favoritism Subjectivity of performance evaluations	Best Value Approach	X	X	
Differences in priority criteria, needs and expectations between private and public stakeholders	Public and Private Partnerships		X	
No-disclosure			X	
Corruption		X		
Procurement irregularities				X

Conclusion

Litigation is a worldwide construction industry issue. Due to the critical role that the construction industry plays in the Kingdom of Saudi Arabia’s economic development, this has become a major concern for the country. Research shows that the value of the issues construction contracts in both public and private contractual disputes amounted to more than 800 million, noting that the size of these contracts is estimated to be 40% of the state budget (Alnomci, 2012).

The objective of this study was to identify the causes of litigation in the construction industry. A literature search of 3 academic databases and 90 publications identified that the major causes of litigation were due to:

1. Change orders
2. Scope of work changes
3. Design issues
4. Changes of site conditions and lack of clarity of contract conditions

The literature research found only two major differences between the causes of litigation in Saudi Arabia and the rest of the world:

1. Changing key personal responsibilities
2. Clients applying penalties on contractor without conducting investigation of the reason for the delays.

After further investigation into the causes of litigation in the world, it was identified that the reason for legal disputes could be categorized into three major issues:

1. Inaccurate expectations
2. Miscommunication
3. Incorrect documentation

The literature research investigated the efforts to address these problems, which is the major construction delivery systems. Seven types of delivery methods were investigated (DB, CM@R, BVM, IPD, Alliance Contracting, PPPs and BV PIPS/PIRMS). The results showed that every delivery method was shown to have issues in one of these categories (inaccurate expectations,

miscommunication, and incorrect documentation), except the BV PIPS/PIRMS. None of the identified issues causing legal disputes was found to occur in the BV PIPS/PIRMS method.

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