Cultural Factors Influencing Disputes in Public Construction

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Abstract

Although dispute in construction industry has been widely discussed in literature worldwide, few studies have examined the specific nature of the relationship between disputes and cultural factors. This paper presents a study of the influence of cultural factors on disputes in public construction. An exhaustive review of literature is undertaken to identify the effects of organisational culture and leadership in avoiding or minimizing disputes in construction organisations. A proposal is presented for further research based on data collected from governmental agencies and contractors in order to introduce a framework to deal with cultural issues affecting disputes.

Keywords: disputes, culture, organisational culture, construction projects

1. Introduction

Disputes and conflicts in construction projects are considered as unpleasant events that occur in a particular stage of the execution of projects and have negative effects on cost, performance and completion targets. Disputes are ubiquitous and difficult to avoid in construction projects since „„conflicts are inherent in construction projects‟‟ Zack (1995), but they can be minimized and controlled. Disputes and conflicts may divert valuable resources from the overall aim, which is completion: on time, on budget and to the quality specified Fenn (2007). In addition, they generally cost money and take time and they can ruin relationships, which may have taken years to develop". In brief "There are no winners under these circumstances" Ashworth (2006). There are some disagreements in the differences between conflicts and disputes, conflicts are considered often to be the prime driver of disputes Chan (2008).

Culture is an important concept of great interest in dispute research. To make construction industry organizations, groups and project teams more efficient and effective, it is an imperative to better understand the role that culture plays within them. Contextual research shows the significant effect of culture on disputes in international and national construction. Cultural issues contribute to conflicts among parties to an international project and increase difficulties in the management of such projects Fellows and Hancock (1994). In this paper, a comprehensive review of literature is performed to demonstrate the impact of cultural factors on construction disputes with the intent of understanding the interplay between them.

2. Causes of disputes

Disputes in construction projects have been widely researched throughout the world, especially with emerging international projects in developing countries. Delays, in most cases, are accompanied with disputes, failures and ineffective performance in most of construction projects. Arditi *et al.* (1985) performed research into the reasons of delays in publicly funded construction projects for the period 1970-1980 in Turkey. They identified 23 reasons for construction delays concluding that the major causes of delays were: shortage of materials, difficulty in receiving payments from agencies, contractor's difficulties, organisational characteristics of contracting companies and public agencies. However, Mansfield *et al.* (1994) argued that most of the problems were human and management problems, not technical in nature. The list of major factors included finance and payment arrangements, poor contract management, materials shortage, inaccurate estimation and overall price fluctuations.

Similarly, Noulmanee *et al.*, (1999) remarked that delays can be caused by all parties in a highway construction project. However, main causes come from inadequacy of sub-contractors, organization that lacks of sufficient resources, incomplete and unclear drawings and communication deficiencies between consultants and contractors. Their study suggested that delays can be minimized by discussions that lead to understanding. Chan and Kumaraswamy, (1997) also cited five principal factors for delay disputes: poor risk management and supervision, unforeseen site conditions, slow

decision making, client-initiated variations, and work variations. Table 1 shows a summary of some common causes of construction disputes and conflicts mentioned in literature.

Table 1: A summary of the common causes in the literature of disputes and conflicts in construction projects.

Researcher ,Year & Location of the research	*Findings*
Arditi et al. (1985) Turkey	*Investigated the reasons for delays in publicly funded construction projects for the period 1970-1980 in Turkey. They identified 23 reasons for the construction delays. Their findings concluded that the delays were due to: shortage of materials, difficulty in receiving payments from agencies, contractor's difficulties, organisational characteristics of contracting companies and public agencies*
Fern (1991) Australia	*Identified 10 main causes of cost overruns. Among them are design errors, manufacturing errors, variations, delays and discontinuity.*
Mansfield et al. (1994) Nigeria	*Identified the causes of delays and cost overrun problems in Nigerian construction projects. Their findings concluded that most of the problems were human and management problems.*
Watts and Scrivener (1995) UK and Australia	*290 sources from 65 projects in both countries have been identified. The most common cause of dispute in the United Kingdom is negligence, while in Australia it is failure and determination.*
Conlin et al. (1996) UK	*Grouped conflict causes into six broad categories. The groupings covered: payment and budget; performance; delay and time; negligence; quality and administration.*
Smith (1996) USA	*Provided a top ten list of root causes of disputes in the US construction industry as follows: unrealistic contract clauses, unrealistic expectations, ambiguous contract provisions, low bid contractors, poor communications, deficient management, reluctance with changes and unexpected conditions, the absence of team spirit, a predisposition toward adversarial relationships and contract administration.*
Chan and Kumaraswamy (1997) Hong Kong	*A survey of 83 potential delay factors in Hong Kong construction projects and found five principal factors: poor risk management and supervision, unforeseen site conditions, slow decision making, client-initiated variations and work variations.*
Kaming et al. (1997) Indonesia	*Studied influencing factors on 31 high-rise projects in Indonesia and found that cost overruns are caused mainly by cost increase due to inflation, inaccurate material estimation and degree of complexity.*
Noulmanee et al. (1999) Thailand	*Investigated causes of delays in highway construction in Thailand. Main causes are inadequacy of sub-contractors, organization that lacks sufficient resources, incomplete and unclear drawings and deficiencies between consultants and contractors.*
Daoud and Azzam (1999) Middle East	*Studied the sources of dispute in construction contracts in the Middle East. Identified five main sources of dispute in the Middle East as: modifications, lack of understanding, changes in legislation and regulations, poor documentation during contract administration and the influence of local culture on the performance of contract parties.*
Lim and Zain Mohamed (1999) Malaysia	*Studied recurring construction problems in construction projects in Malaysia and found management problems are the most common.*
Mitropolous and Howell (2001)	*Carried out a comparative analysis of 24 construction disputes which occurred on 14 projects in USA. They produced a model that show the*

USA	*development of disputes and develops a classification of "problem situation", based on three elements: project uncertainty, contract, working relations and problem solving effectiveness.*
Assaf and Al-Hejji (2005) Saudi Arabia	*73 causes of delay were identified. The identified causes were combined into nine groups. Lowest bid was cited as the most frequent factor of delay.*
Chan and Suen (2005) China	*Studied disputes in Sino-Foreign Joint Venture construction projects in China. Contractual, cultural, and legal matters are suggested as the primary sources of disputes*
Zaneldin, (2006) UAE	*Conducted research on construction claims in UAE. One of the common problem areas is "changes" and "Extra-work" type of claims.*
Acharya and Dai Lee (2006) Korea	*Categorically identified six conflicting factors in construction in Korean construction: Change of site condition, public interruptions, change order evaluation, design errors, Excessive quantity variation, double meaning in specifications.*

Kumaraswamy (1997) conducted an important empirical work in Hong Kong to examine the common causes of claims and disputes on construction projects. He suggested a classification of sources and dispute into two areas: root causes and proximate causes. For instance, adversarial culture and lack of professionalism of project participants are considered as root causes while poor communications and personality clashes are categorized as proximate causes. He suggested further studies to isolate the real root causes of avoidable disputes. Kumaraswamy‟s classification has been criticized by Love *et al.* (2005) because causes were not traced and isolated which would give rise to claims and disputes especially since he suggested that the causes identified were all controllable to a certain extent. Fig 1 shows the root and proximate causes as per Kumaraswamy‟s classification.

Accurate contract documentation is an important issue in avoiding disputes. Several attempts have been made by researchers to prevent or minimize disputes through choosing the proper contract procurement approach. Jannadi *et al.* (2000) proposed techniques that can be incorporated in preparing construction contracts for dispute avoidance including: fair allocation of contract risks, drafting dispute clauses, team building, and provision of a neutral arbitrator and binding arbitration. In addition, contractual factors have been recognised as causes of disputes and if not treated effectively may cause disagreements among project parties Mitropulos and Howell, (2001); Bristow and Vasilopoulos, (1995); Smith, (1996); and Conlin *et al*., (1996).

Researches studying the causes of disputes in construction industries from USA, UK, China, Saudi Arabia, Nigeria, Canada, Thailand, Indonesia, Korea, Malaysia, Jordan, UAE and Turkey are summarized in Table 1. Although the circumstances for each construction environment are different from the others, disputes remain similar in many regards. Among others, the dispute causes mentioned in the studies are:

1. Management and leadership problems.
2. Contractual problems, mainly poor documentation during contract administration.
3. The influence of culture on contract parties.

4. Unqualified and inexperienced manpower.
5. Late payments and financial issues.
6. Changes and modifications.
7. Unrealistic expectations.

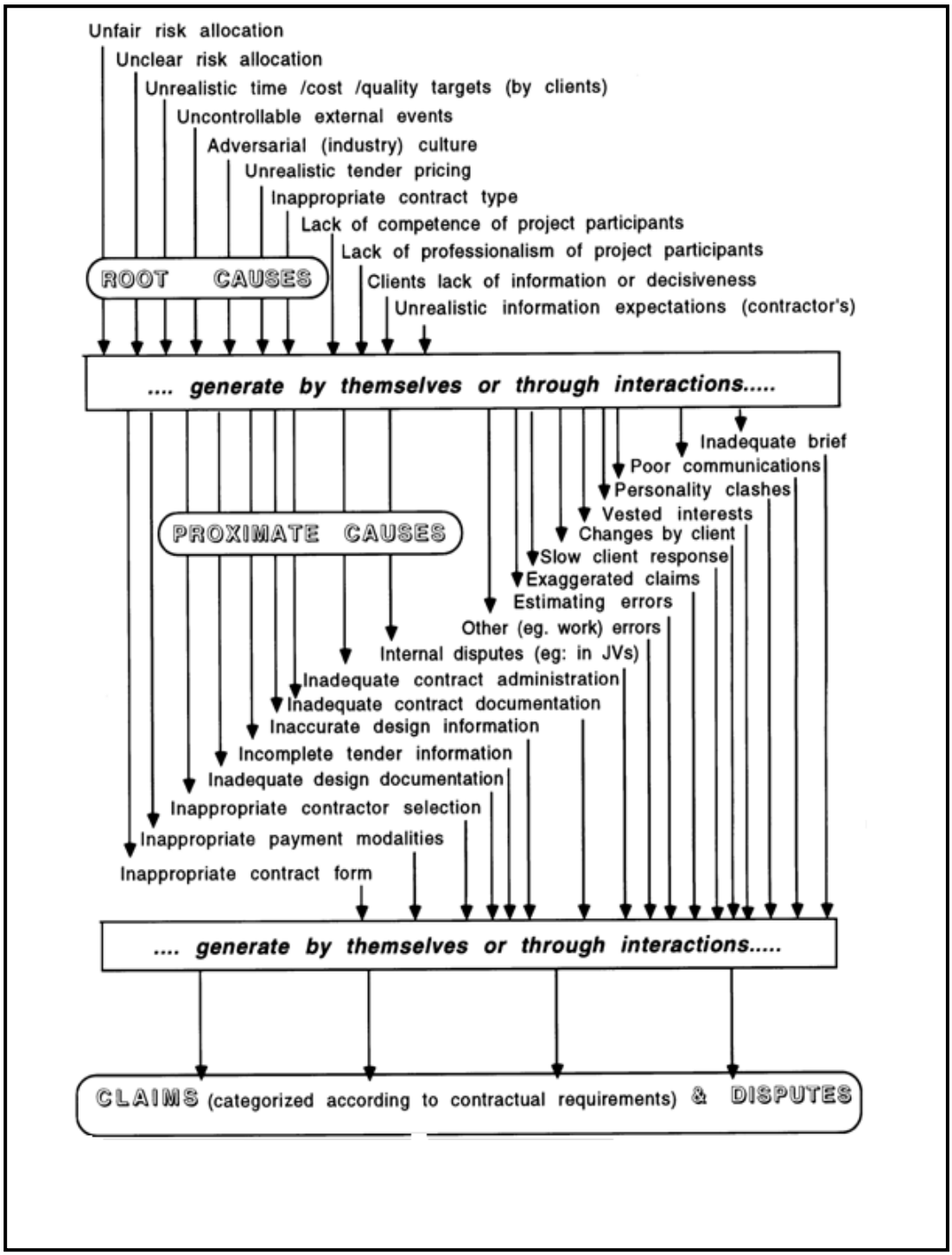

Figure 1: The root and proximate causes of claims and disputes (Kumaraswamy, 1997).

Hewit (1991) suggested six main categories of claims: change of scope; changed condition; disruption; acceleration; and termination. Daoud and Azzam (1999) conducted a study on the sources of disputes in construction contracts in the Middle East pointing to „„the influence of local culture on the performance of the contract parties‟‟‟. In addition, research by Watts and Scrivener (1995) found that the most common causes of disputes in the United Kingdom are negligence, while in Australia it was failure and determination. The effect of interaction of technical, contractual and behavioural factors on the development of disputes was studied by Mitropoulos and Howell (2001). The authors identified three basic factors that directly affect disputes: project uncertainty, contractual problems and opportunistic behaviour.

3. Cultural factors

3.1 Culture in construction

In order to understand the impact of culture on construction disputes and to tackle the roots of disputes, it is important to understand culture and organisational culture in the construction industry. Hofstede (1984) defined culture as „„the collective programming of the mind which distinguishes the members of one human group from others". Culture is considered to be one of the most difficult and complex issues to understand. The anthropologist Tso (1999) suggested some parameters within the following fields: „„culture describes the social system created by a group of people; it starts from the moment that a few people get together regularly and begin to establish norms and rules through which they will interact and communicate with each other and maintain order; it is about patterns of meaning; it is about shared beliefs, values, perspectives, and worldviews; it is about shared behaviour, practices, rules, and rituals; it is not limited to groupings by race or ethnicity, but can describe a sub-culture within a society-designers, for instance; it is often associated with language and communication; it is viewed as a mental or cognitive construct, created in the minds of people; it is learned; it can be found in materials: objects, artefacts, clothing, artwork, and so forth; and it can emanate from social institutions and structures, such as governments, economies, and legal systems, as well as geographic and environmental factors‟‟‟. In a competitive construction industry, culture plays a considerable role in the performance, success and failure of projects. The dynamics of the construction business have become more dependent than ever on the cultural behaviours of construction organisations; it has become clear that sustained profitability and high financial returns are not enough to survive and remain successful in highly competitive markets because there is considerable evidence of conflicts and misunderstanding caused by cultural practices Oney-Yazic *et al.* (2005).

3.2 Organisational culture

It is essential for construction firms to understand their own culture in terms of behaviours, attitudes and processes, in other words their organisational culture. Organisational culture is a key ingredient that differentiates the successful firms from the others, because it is the major distinguishing feature, the most powerful factor, and the most competitive advantage in gaining success Cameron and Quinn (1999). Attempts to define organisational culture showed divergence in the concept. For example, Schein (1992) defined organizational culture as "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid, and therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems". However, Hofstede (1997) saw it as the

collective mental programming that distinguishes the members of one organisation from another. In 1968, Hofstede conducted what is still today known as the most important cross-cultural value study in the field of different cultures and their approach to management. Hofstede"s research (1980, 2001) indicated that managerial and organizational practices may be different in countries that belong to different clusters based on cultural value similarities. Hofstede identified four dimensions of culture drawing on a large sample of 116,000 employees of IBM in 72 countries. Based on the previous study, Hofstede (2001) concludes that the four dimensions used to differentiate between cultures are: power distance, individualism versus collectivism, uncertainty avoidance and masculinity versus femininity.

One of the major reasons for the widespread popularity and interest in organizational culture stems from the argument (or assumption) that certain organizational cultures lead to superior organizational financial performance Ogbonna and Harris (2000). Rahman and Kumaraswamy (2003) argued that key success factors for construction companies are the „„flexible organisational cultures"" of the organisations involved, so that they can both contribute and adapt to the emerging project culture. This will, in turn, open up the organisations to absorbing back positive culture-building elements that will collectively feed into an enhanced performance-oriented construction industry culture. However, many researchers attribute success, good performance, organizational effectiveness of construction organisations to their strong organisational culture Deal and Kennedy (1982); Schein (1992); Barney (1986); Hoecklin, (1996); Denison and Mishira (1995). It is argued that organizational culture will remain linked to superior performance only if the culture is able to adapt to changes in environmental conditions Denison (1990).

Many studies discussed the cultural influence on construction industry and how it affects relations between project parties. A study conducted by Zhang and Liang (2008) reviewed the trend of the studies in international construction from the cultural perspective, focusing on effect of culture on communication, dispute resolution, negotiation, and international construction joint ventures. They concluded that:

- Cultural differences do contribute to adversarial attitudes and disputes in international construction projects.

- Organizational culture of each participant in the global projects is always complicated by national culture distance and professional barriers.

- Hofstede"s work is still the most widely referenced in researches when cross-cultural considerations are being made.

According to Akintoye and Main (2006), the five main factors identified (apart from senior management support and the relationship being perceived as very important to the partners) for successful construction collaboration are: commitment, trust, shared risk; responding to clients" needs; and good communication. The five main failure factors in order of significance are lack of trust; communication breakdown; lack of belief in the system; clash of organisational cultures; and unchanging attitudes.

It is accepted that disputes in construction projects may arise as reflection of cultural differences or culture clashes between teams working in the same project. In this vein, Chan (2003) found that the most significant factors contributing to disputes in international projects are: inappropriate contractual arrangements and cultural clashes. Ankrah and Langford (2005) performed a comparative study of organizational culture between architects and contractors in order to explore the cultural clash at the inter organization level. They found that contractors are largely formal organizations in which control and coordination are achieved through formal methods and procedures while Architects are largely informal organizations in which control and coordination are achieved through empathy between organizational members and through direct personal contracts. Conflict management is influenced by organisational culture. The relationship between culture and conflict management styles in an organizational setting was investigated by Elsayed Elkholy and Buda (1996). They surveyed employees in companies located in the Middle Eastern countries as well as in the United States. Their data collected from the Middle East and USA showed Middle Eastern executives to display more integrating and avoiding, while U.S. executives used more obliging, dominating and compromising styles. Kozan (1989) also studied conflict behaviour of managers toward superiors, peers and subordinates in Jordan, Turkey and U.S., founding managers acting, peacefully, to avoid conflicts in all the three countries. Some researchers suggested particular approaches to examine how cultural factors act through decisions and behaviours of project participants in the generation and resolution of disputes Liu and Fellows (1996).

Weddikkara (2003) pointed out that causes of disputes are relevant to the nature of a certain country or region because of the specific cultural, religious, political, economic, social and environmental states. For example, Watts and Scrivener (1995) found a significant similarity in the proportion of cases classified by the particular parties to disputes between Australia and the UK. They alluded to the similarities of building contracts; the legal system and several cultural aspects in the two countries. Construction remains a people‟s business and construction organisations are human institutions. As long as it can be argued that organisational behaviour within these institutions is not random Ankarah *et al.* (2007), it can also be argued that there are cultures that regulate behaviour Hofstede (1984).

Rahman *et al.* (2003) argued that the key success factors for construction companies are „flexible organisational cultures‟ of the organisations involved, so that they can contribute and adapt to the emerging project culture. This will, in turn, open up the organisations to absorbing back positive culture-building elements that will collectively feed into an enhanced performance-oriented construction industry culture. However, organizational culture, and its influences on construction organisations are not yet fully understood. There is still need for more research because many changes have been associated with organisational culture over the past decade. The growing awareness of the importance of culture in construction has seen increasing interest from researchers on culture and related issues, though much of this still remains anecdotal Ankrah (2007).

3.3 Leadership and Culture

A review of the literature shows that leadership and organisational culture in construction are interrelated in many respects. For example, Schein (1992) observed that organizational culture and leadership are „‟intertwined‟‟; or it can be said that „„leadership and culture may be two sides of the same coin‟‟ Senge (2000). Current models of organizational performance and change suggest that leadership and organizational culture are central explanatory constructs Burke and Litwin (1992). When organisations are first established, leaders create culture in their organisations depending on which development model they adopt and shape organisational culture that reflects, positively or negatively, the leadership styles, behaviours and values. Hennessey (1998) found that the most effective leaders foster, support, and sustain organizational cultures that facilitate the type of management reform envisioned by "reinventing government" and the attendant increases in effectiveness and efficiency. Organizational culture can be seen in how leadership reacts to critical incidents and it can be found in leadership‟‟s role modelling and coaching actions Able (2007). Investigating the relationship between leadership and organisational culture in the literature conclude that: (1) the style of a leader affects performance, (2) certain types of culture are linked to superior performance, and (3) culture and leadership are related, the precise nature and form of interaction between these three concepts is not fully understood Ogbonna and Harris (2000). A plethora of studies are needed to understand these relationships; „„leadership and culture are so central to understanding organizations and making them effective that we cannot afford to be complacent about either one‟‟ Schein (1992).

A leader‟‟s philosophy and attitude towards dealing with disputes and conflicts is embodied in the managerial practices taking place in the organisation. Successful projects are significantly concerned with managers identifying and responding to various forms of conflict. Ultimate success or failure in achieving project goals can often depend on a project manager's ability to identify the causes and respond appropriately Zikmann (1992). In times of conflict, real leaders are highly needed. „„There has to be clear leadership; communication is the answer, and there is a need for absolute commitment" Ankrah and Proverbs (2008). It is arguable that industry culture may in fact have a stronger influence on expected behaviours and norms of leaders that may override the influence of organisational cultures Dastmalchian *et al.* (2000). Organisational leaders are expected to be sensitive to local cultures and traditions yet at the same time become initiators of change Kabasakal and Dastmalchian (2001). Thus, a definition of organizational leadership emerges: "the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organizations of which they are members" House *et al*. (2002).

Kabasakal and Dastmalchian (2001) presented a study that focused on values and practices as well as effective leadership attributes that are widely shared in Middle Eastern societies. Their finding was that there are major similarities in the societal and organisational cultures of Iran, Kuwait, Turkey, and Qatar. Some of the similarities can be explained by the common Islamic religion that the people of these four nations share. Regarding organisational leadership, they are expected to be sensitive to local cultures and traditions yet at the same time become initiators of change. To examine the nature of this relationship, Ogbonna and Harris (2000) presented empirical evidence which suggests that the relationship between leadership style and performance is mediated by the form of organizational

culture that is present. The paper indicated that leadership style is not directly linked to performance but is merely indirectly associated. Also, Limsila and Ogunlana (2008) found that the transformational leadership style has a positive association with work performance and organizational commitment of subordinates more than the transactional style. Transformational leaders produce higher leadership outcomes than transactional leadership.

Block *et al*. (2003) summarized literature on the relationship between leadership and organizational culture into the following conclusions that have been suggested by researchers:

- The impact of leadership on firm performance is mediated by organizational culture.
- Leadership creates an environment in which fundamental organizational change is more or less likely to occur.
- Specific leadership behaviours are associated with distinct cultural traits.
- Contextual factors such as organizational culture have an impact on the emergence of specific leadership styles.
- Leaders use their knowledge of organizational culture to affect change.
- The behaviours of leaders influence the perceptions of organizational culture among followers.

Despite the explicit role of leadership and culture in the ultimate success of construction projects, little critical research attention has been devoted to understanding the interrelationship between organisational culture and leadership and the impact that such an association might have on construction organizations.

4. Research and proposal

From the above literature presentation, it is clear that cultural factors are among the significant causes of dispute, yet these factors have not been deeply investigated. This paper is an attempt to understand the cultural factors (organisational culture and leadership) in construction to establish a solid ground to explore the impact of these factors on disputes. The long term aims of this research are therefore to study cultural factors influencing disputes in public construction projects and to identify the relationships between them. Once the relationships are understood, a theoretical framework will be developed to better understand the parts of research helping to deal with disputes in construction projects towards dispute reduction. A focus will be on the role of leadership in construction organisations and how effective leaders behave in the context of emerging disputes in their organisations. From the previous discussion, the proposed research questions can be outlined as the following:

- What are the causes of disputes in public construction?
- What are the cultural factors influencing disputes in public construction?
- How do cultural factors impact disputes in public construction?
- What kind of relationship exists between leadership and organisational culture in public construction?
- What is the impact of leadership and organisational culture on disputes in public construction?
- Can effective leadership help minimize construction disputes?

The research methodology includes a comprehensive literature review on culture, organisational culture and leadership characteristics of public construction environment. Questionnaire survey and interviews are to be used to collect data from government agencies and contractors. The organisational culture instrument OCAI developed by Quinn and Cameron (1999) for measuring organisational culture profile will be used. This tool is based on theoretical model titled "the competing Values Frame Work" (CVF) which is used to diagnose and facilitate change in organisational culture Cameron and Quinn (1999). A leadership model is to be proposed as a need for more genuine project leadership development. It is envisaged that the model will be similar to that presented by Grisham (2006) of trust, empathy, transformation, power and communication.

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