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In recent years there has been a growing interest in the use of partnering in construction. Since partnering is seen as changing behaviours and attitudes, cultural transformation cannot be forgotten in the process. Much of the literature tends to presume that cultural alignment is a prerequisite for partnering. Furthermore, the existing research fails to adequately address the complex relationship between individual or group behaviour and organisational culture which, nevertheless, lies at the heart of many prescriptions for improving collaboration within the industry.

This paper initially reviews the major cultural and behavioural challenges and their root causes in construction partnering projects. Many commentators place considerable emphasis upon the importance of changing attitudes and cultural transformation to address various challenges in construction partnering. As the first step, this paper proposes a cultural web to understand organisational culture and to identify a substantial range of the elements which must be managed if a strategic and cultural change is to be successful.

**Keywords:** partnering, cultural transformation, cultural web.

**INTRODUCTION**

In recent years there has been a growing interest in the use of partnering in construction (Bresnen and Marshall, 2000a; Dainty et al., 2001; Wood and Ellis, 2005; Ingirige, 2004). Partnering and the related forms of collaboration have been seen as a way of dealing with the fragmentation and lack of integration that have bedevilled attempts to improve project performance over the years (Bresnen and Marshall, 2000a). This represents perhaps the most significant development to date as a means of improving project performance, whilst offering direct benefits to the whole supply chain (Larson and Drexler, 1997; Wood and Ellis, 2005). Many commentators argue that partnering can have a substantial positive impact on project performance, not only with regard to time, cost and quality objectives, but also with regard to more general outcomes such as greater innovation and improved user satisfaction (Latham, 1994; Bennett and Jayes, 1998; Bennett et al., 1996; Bresnen and Marshall, 2000c).

Partnering has been defined as “a long term commitment between two or more organisations for the purpose of achieving specific business objectives by maximising the effects of each participant’s resources” (Bresnen and Marshall, 2000a). While there is an agreement about this overall philosophy of partnering, there are varying views on its features. These include a wide range of concepts capturing culture, behaviour, attitudes, values, practices, tools and techniques. Despite the fact that commentators place considerable emphasis upon the importance of changing attitudes, improving interpersonal relationships and transforming organisational cultures, very little of the research has explored the social and psychological aspects associated with the successful integration of partnering (Bresnen and Marshall, 2000a; Wood and Ellis,
2005). The discussion in this paper revolves around the challenges of construction partnering and the necessity for cultural transformation.

**CONCEPTS OF PARTNERING**
According to Naoum (2003), partnering is a concept which provides a framework for the establishment of mutual objectives among the building team with an attempt to reach an agreed dispute resolution procedure as well as encouraging the principle of continuous improvement. Thus partnering is intended to reduce the adversarialism which is said to be typical in the industry and which has confounded previous attempts to encourage better integration and cooperation between contractual partners (Latham, 1994; Egan, 1998; Bresnen and Marshall, 2000b). Similarly, partnering has also been defined as a management approach used by two or more organisations to achieve specific business objectives by maximising the effectiveness of each participant’s resources based on mutual objectives, an agreed method of problem resolution and an active search for continuous measurable improvements (NAO, 2001).

Furthermore, mutual trust and understanding of each other’s commitments appear to be the prerequisites of changing traditional relationships to a shared culture in partnering (Barlow and Cohen, 1996; Bresnen and Marshall, 2000c; Naoum, 2003). Bresnen and Marshall (2000a) reinforce the requirement for the change in attitudinal and behavioural characteristics to achieve mutual trust. Barlow et al. (1997), cited in Naoum (2003), succinctly argues that to achieve mutual trust, organisations must ensure that individual goals are not placed ahead of team alliance. He also supports the idea of ‘gain-sharing’, which effectively relates improvements back to all the participants. These points highlight that partnering is built upon the attitudinal and behavioural characteristics of participants which lead towards mutual trust, thus moving away from the traditional adversarial culture of the construction industry.

**BENEFITS ATTRIBUTABLE TO PARTNERING**
Several studies indicate that there is little doubt about the positive aspects of partnering arrangements (Wood and Ellies, 2005). Bennett and Jayes (1998), cited in Bresnen and Marshall (2000a), suggest that performance, in terms of cost, time, quality, buildability, fitness-for-purpose and a whole range of other criteria, can be dramatically improved if participants adopt more collaborative ways of working. Furthermore, they illustrate the ways to create undefined win-win relationships which involve a sophisticated strategy and require a willingness to improve the joint performance. Their research cites remarkable potential savings of 40–50% in both cost and time (Wood and Ellies, 2005). However, whilst benefits are often cited in terms of cost and time (Naoum, 2003), other benefits to the team players which are more difficult to assess have been ignored. This section briefly identifies and illustrates the common benefits of partnering cited in various partnering related literature.

Most of the research lists cost savings as the main advantage in employing partnering in construction. Chan et al. (2003) suggests that partnering has great potential to improve cost performance and reduce the risk of budget overruns. There are many reasons quoted for better cost performance, including: alleviating rework; reducing scheduled time; heightening involvement of team members; improving trust; reducing scope definition problems; opening communication; lowering change order rates; and eliminating blame shifting (Albanese, 1994: Chan et al. 2003). Furthermore, Black et al. (2000) believe that medium to long-term relationships compress the normal learning curve and thereby reduce the normal costs of developing and supporting productive relationships between the parties. Also, partnering is attributed for lower administrative costs by eliminating defensive case building (Hellard, 1996).
Working with suppliers can enhance the ability of the organisation to meet the client's programme, quality, flexibility and cost requirements. According to Black et al. (2000), one of the key benefits of partnering is the resultant synergy between project participants, enabling constant improvement in the key variables. In particular, the early involvement of contractors in the design stage can assist in constructability input and maximising value engineering, thus improving both cost and schedule (Bresnen and Marshall, 2000a). Also, a fair and equitable attitude from project participants jointly resolves many disputes, discrepancies and changed conditions which arise during construction. Gransberg et al. (1999), cited in Chan et al. (2003), found that fewer numbers of liquidated damages were imposed on the partnered projects than the non-partnered ones.

According to Chan et al. (2003), an effective partnering agreement improves project quality by replacing the potentially adversarial traditional relationship and case building with an atmosphere that fosters a team approach to achieve a set of common goals. Partnering also provides a way for all parties to develop continuous improvement. With this joint effort and long-term focus, barriers to improvement are eliminated. Hellard (1996) suggests that partnering can increase the potential for innovation by encouraging partners to evaluate advanced technology for its applicability. These, in turn, produce high-quality construction and service and reduce engineering re-work (Black et al., 2000; Li et al., 2001). As one of the other quality benefits, the safety performance can be improved as partners better understand each other, taking joint responsibility to ensure a safe working environment for all parties (Chan et al., 2003).

As the partnering literature points out, a mechanism for problem solving is an inherent part of the concept (Chan et al., 2003). Thus partnering aims to reduce the adversarial relationship to allow a focus on mutual goals to the benefit of both parties (Black et al., 2000; Naoum, 2003). This encourages mutual trust and gain sharing which will result in closer relationship, providing a better environment for the project (Green, 1999; Chan et al., 2003). Improved customer focus and joint satisfaction of stakeholders are also achieved through this.

However, there is a tendency within the partnering literature to concentrate on success stories (Wood and Ellis, 2005). Conflict and failure could occur by a fundamental deviation in goals, especially in relation to accountability, thus hindering all cooperation that may have been attained by the partnering process (Thomas et al., 2002). There is case evidence of the failure of partnering to meet performance expectations in construction (Bresnen and Marshall, 2000c). Thus it is important to adequately address and evaluate the challenges and potential problems in construction partnering.

PARTNERING CHALLENGES AND PROBLEMATIC ISSUES

The concept of partnering overhauls the ethics of traditional contracting with the paradigm shift towards cooperative and caring environments. According to Naoum (2003), successful partnering could attain win-win solutions and gain sharing. In general, with a cultural shift in attitudes, project partnering can be successful and bring benefits to the stakeholders involved in the project partnering process (Thomas et al., 2002). However, changing traditional relationships to a shared culture requires mutual trust and dedication to common goals (Dainty et al., 2001; Wood and Ellies, 2005). An absence of mutual trust and scepticism within participants may result in various problematic issues.
According to Lendrum (1998), cited in Thomas et al. (2002), a lack of open and honest communication may lead to degradation in the stakeholders’ ability to efficiently resolve any problems. Some of the main problematic issues in partnering projects, as identified by Thomas et al. (2002), include a lack of empowerment and technical knowledge from the client’s side, usage of competitive tendering, failure to include key suppliers and sub-contractors, and lack of training. They successfully argued that the client should be head facilitator of the partnering arrangement, taking a leadership role and ensuring full commitment and correct facilitation throughout the entire duration of the project. It was identified that the majority of problematic issues experienced in project partnering arrangements were related to the commitment provided to the attitudinal change and procedural implementation required in efficient project partnering (Thomas et al., 2002).

As discussed, central to any successful partnering arrangement is the change in attitudinal and behavioural characteristics towards mutual trust and understanding. Green and McDermott (1996) argue the attitudes and behaviour evident in the construction industry are deeply ingrained and that it is difficult to engineer any rapid movement away from such an embedded culture. According to Li et al. (2001), partnering requires a long-term strategic plan with cultural change intervention in order to move beyond a traditional discrete project nature. In effect, the development of trust between organisations is seen as a function of the length of the relationship between them, and the mechanisms that lead to this alignment are viewed largely as informal. On the other hand, researchers believe that it is possible to bring about change over the timescale of a single project, suggesting the view that partnering can be engineered and does not have to evolve naturally (Bennett et al., 1996; Bresnen and Marshall, 2000a). Despite the separation between informal developmental and formal instrumental views to alter the behaviour, behaviour is considered as the result of conscious choices and actions and a complex interplay between structural imperatives and their subjective interpretation and enactment (Bresnen and Marshall, 2000a).

Since partnering is seen as changing behaviours and attitudes, cultural transformation cannot be forgotten in the process. Much of the literature tends to presume that cultural alignment is a prerequisite for partnering. However, it is certainly not easy to bring about cultural change to adopt a new set of behaviours as a consistent way of working among the people. Atkinson (1990) identified fear, perceived loss of control, difficulty in learning to do the things differently, uncertainty, additional workload and unwillingness to commit as the reasons for people resisting change. Hill and McNulty (1998) portray fear and uncertainty as the main barriers to change. Conceptualisation of the relationship between partnering and culture (Bresnen and Marshall, 2000a), resistant to change from traditional, adversarial and exploitative ways (Bresnen and Marshall, 2000b), lack of cooperation based upon fundamental differences in interests between the parties to contract, profitability and uncertainty issues, unwillingness to commit fully to close, long-term relationships, together with the construction industry perception of mistrust (Cheung et al., 2003) can be considered as some of the reasons for resisting cultural change towards collaborative relationships. Therefore it is very important to understand the culture and values of the industry to overcome these barriers to change. The cultural web (Johnson et al., 2005) is a useful tool to begin this process.

THE CULTURAL WEB
Schein (2004) defines organisational culture as the “basic assumptions and beliefs that are shared by member of an organisation, that operate unconsciously and define in a basic taken for granted fashion an organisation’s view of itself and its environment”.
Expectations and strategy are rooted in ‘collective experience’ and become reflected in organisational routines that accumulated over time. Culture is also shaped by ‘work based’ groupings such as an industry or profession (Johnson et al., 2005). This cultural influence is better understood as the influence of the ‘organisational field’. An organisational field is a community of organisations that partake of a common meaning system and whose participants interact more frequently with one other than with those outside the field (Johnson et al., 2005). Therefore it is important to understand both the organisations comprising the field and the assumptions to which they adhere.

Organisations within a field such as construction tend to cohere around common norms and values. Several industry commissioned reports shares this view, where problems such as low and unreliable demand and profitability, lack of research and development, inadequate investment in training, the current approach to the usage of tender price evaluations, an adversarial culture and fragmented industry structure, are widely recognised (Latham, 1994; Egan, 1998; Santos and Powell 2001; NAO, 2001; Fairclough, 2002). Successive independent reviews of construction have emphasised the need to improve the culture, attitude and working practices of the industry. As argued above, it is very important to understand the construction organisations and their underlying assumptions to make these attitudinal and cultural improvements in the construction industry. However trying to understand culture is not straight forward. The day-to-day behaviours not only give clues about the ‘taken-for-granted assumptions’, but are also likely to reinforce these assumptions. The cultural web (Johnson et al., 2005) is a useful tool to attain a rich source of information about an organisation’s culture.

The concept of the ‘cultural web’ is a representation of the taken-for-granted assumptions, or paradigms of an organisation and the behavioural manifestations of the organisational culture (Johnson et al., 2005). It arose from the belief that understanding and characterising both the culture and sub-cultures within an organisation could help to predict how easy or difficult it would be to adopt new strategies (McGrady, 2005). This concept defines organisational culture as layers of values beliefs and taken-for-granted assumptions. Figure 1 shows the elements of the cultural web, which bonds the taken-for-granted assumptions and organisational life.

![Fig. 1: The cultural web (Johnson et al., 2005).](image-url)
The elements of cultural web are as follows:

- **Routines** are seen in the behaviours that members of the organisation use with each other and those outside the organisation. They make up ‘the way we do things around here’. Competitive pricing can be seen in many construction organisations as one the major routines. Such kinds of well-established routines result in adversarial cultural behaviours which are extremely difficult to change (Johnson *et al.*, 2005).

- **Rituals** are special events through which the organisation emphasises what is important and reinforces ‘the way we do things around here’. New collaborative rituals can be introduced to the construction industry or old rituals done away with to reinforce change towards collaborative practices. Induction and training programmes, award ceremonies, promotions, and project teams are some of these rituals which can be used in cultural transformation.

- **Stories** told by members of the organisation to each other, to outsiders, to new recruits and so forth, embed the present in its organisational history and highlight important events and personalities. They typically have to do with successes, disasters, heroes and villains. Stories may also be managed by the usage of corporate newsletters and newspapers. They symbolise what is important in an organisation and help shape its culture.

- **Symbols** such as logos, offices, clothes and titles or the type of language and terminology commonly used become a shorthand representation of the nature of the organisation. It is argued that changing symbols can help reshape beliefs and expectations because meaning becomes apparent in the day-to-day experiences people have of organisations (Johnson *et al.*, 2005). Changes in physical aspects of work environment, and changes in the behaviours and language used by strategic leaders are considered as powerful symbols of transformation.

- **Power structures** are the most powerful groupings within the organisation and are usually associated with this set of core assumptions and beliefs. Transforming the behaviours and rituals of powerful groups can reduce resistance towards the desirability of change.

- **Control systems**, measurements, recognition and reward systems emphasise what it is important to measure in the organisation and what attention and activity should be focused upon. For example, most of the incentive schemes in construction partnering include just the client and the main contractor (Bresnen and Marshall, 2000b). It is suggested that project incentive systems be expanded to the whole supply chain, based on incentives dependent upon project performance.

- **Organisational structure** is likely to reflect power structures and describe key relationships, emphasising what is important in the organisation. Partnering structures are aimed at focusing on parties that have been engaged in adversarial relationships, and fundamentally improving their ability to resolve inter-organisational conflicts by re-organising their interface (Li *et al.*, 2000). Organisational boundaries are assumed to merge in the later stages, enhancing trust and inter-organisational exchange. However, this chosen structure should also be aligned with matching processes and relationships.
• **The paradigm** (philosophical framework) of the organisation encapsulates and reinforces the behaviours observed in the other elements of the cultural web. It represents the unquestioned assumptions that exist within an organisation. A comparison between the current organisational taken-for-granted assumptions and industry requirements would clearly show the essential elements of cultural transformation.

A detailed map produced by the cultural web would expose a rich source of information about an organisational culture. This understanding of present taken-for-granted assumptions can be used to identify areas to be modernised and transformed to facilitate behavioural and cultural change in construction partnering projects. Comparison of cultural webs of 'parties to partnering contract' can also reveal the requirements to form cultural alignment between the parties. Loizos (1995) argues that the cultural web not only helps to clarify the main and subconscious cultural, structural and procedural characteristics of an organisation, but also helps to show which values, beliefs and artefacts need to adapt to a new strategic direction, and which ones should be maintained and strengthened. It also represents a substantial range of the elements which must be managed if a strategic and cultural change is to be successful. Even though a cultural web may only form the first step towards cultural alignment, it would surely contribute to a smoother cultural transition in construction partnering projects.

**CONCLUSION**

Mutual trust and understanding of each other’s commitments appear to be the prerequisites of changing traditional relationships to a shared culture in partnering. However, it is certainly not easy to bring about cultural change to adopt a new set of behaviours as a consistent way of working among people. Lack of cooperation based upon fundamental differences in interests between the parties to contract, profitability and uncertainty issues, unwillingness to commit fully to close, long-term relationships, together with the construction industry perception of mistrust can be considered as some of the reasons why cultural change towards collaborative relationships can encounter resistance. It is very important to understand the culture and values of the industry to overcome these barriers to change. The cultural web presents a platform to understand paradigms of an organisation and the behavioural manifestations of organisational culture. It helps to show which values, beliefs and artefacts need to adapt to a new strategic direction, and which ones should be maintained and strengthened. As the way forward from this research, the authors plan to undertake case studies in order to understand cultural similarity and diversity among successful construction partnering projects.

**REFERENCES**


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