

Building trust in construction projects

Malik M.A. Khalfan, Peter McDermott and Will Swan

SCRI Research Centre in the Built and Human Environment Research Institute, University of Salford, Salford, UK

Abstract

Purpose – The objective of this paper is to present different perspectives on building “trust” among supply chain participants working on construction projects.

Design/methodology/approach – A case study methodology was adopted; with five construction projects selected as five case studies for the trust in construction project on the basis a selection criteria devised for the research project. Over 40 interviews were conducted with participants operating at different levels in their respective organisations and at different point in the supply chain.

Findings – The information provided by the multiple informants was, to a large extent, consistent with much of the academic literature relating to the importance of and barriers to trust. Specifically, the case studies highlighted: what people within the construction industry understand by trust, reliance, and honest professional relationship; the key factors that contribute towards building trust and factors that result into breakdown of trust; and organisational and project related factors that influence trust and relationships among people within the industry.

Research limitations/implications – The findings from this study are limited due to: a small number of case studies undertaken, focused within the North West Region of England, and limited time and resources available. However, the ideas proposed for ways to develop trust in construction projects as seen from project findings have important implications for not only the clients but also for the main contractors and sub-contractors who need to pay greater attention to build trusting and long-term relationship as part of an integrated supply chain in order to deliver the continuous demand for services especially from public sector clients.

Practical implications – If more businesses operating in the construction sector gave more thought to the importance of trust in construction projects then this could have a significant impact on contract design and over all procurement strategy. Specifically the repetitive work carried out by the local authorities in the UK, such as school building and maintenance, social housing stock improvement, etc., can be subcontracted to the contractors on a longer term basis resulting into long term supply chain relationship among organisations and cost savings.

Originality/value – The research is among the first attempts in response to Latham report published in 1994, in order to explore the role of trust in construction projects, from the perspective of multiple stakeholders. The paper provides insights into the practical issues that prevent the widespread development of trust within the construction industry, which is a challenge that clearly warrants further attention from academics and practitioners.

Keywords Trust, Construction industry, Supply chain management

Paper type Case study

Introduction

Trust has been highlighted in both the Latham (1994) and Egan (1998) reports as a major factor leading to the success or failure of construction projects. The National Audit Office (2001) also highlighted the importance of trust in their report, “Modernising construction”. However, little attention has been given to date on the barriers to creating trust, in the context of construction projects, which remains a significant challenge to the vast majority of businesses and organisations working in this complex and highly fragmented industry.

The paper presents industry insights from a project entitled ‘Trust in construction’, sponsored by the Engineering and Physical Sciences Research Council (EPSRC) and dedicated to investigating the issues surrounding trust in construction

projects – what it is, what builds it, how does it impact the way people work on construction projects? As part of the project 40 interviews were conducted with supply chain participants (main contractors, sub-contractors, clients, consultants and end-users) from a range of sectors and functional areas (trade, supervisor, manager, senior managers, and directors) in order to gain different perspectives on the presence or absence of trust within project teams.

The following sections highlight some of the main issues identified from the interviews addressing the general issues surrounding trust and its relevance to construction.

What does the construction industry understand by trust?

It is widely understood that trust is a complex issue and many factors influence trust in relationships. During the course of the interviews conducted for this project three main factors emerged as important: honest communication, reliance and delivery of outcomes.

The current issue and full text archive of this journal is available at www.emeraldinsight.com/1359-8546.htm



Supply Chain Management: An International Journal
12/6 (2007) 385–391
© Emerald Group Publishing Limited [ISSN 1359-8546]
[DOI 10.1108/13598540710826308]

Honest communications

The majority of interviewees agreed that trust was concerned with the way people communicated with each other. People had to be open, willing to share important information with the rest of the team, and be honest, giving information that reflected the real situation. People stated that trust could only exist where these types of communications existed. It was felt to be important that people gave information when it was needed. It is probable that when there are clear communications between people on a construction project, people can more effectively put across their requirements of one another ensuring better delivery of the final project.

Reliance

When people trust they are relying on the information that they are being given. They have to trust that the people they work with will get things done when they say they will and to the standard they expect. If they are behaving as if they think people are not going to deliver, then there is no trust (McDermott *et al.*, 2005). The interviewees understood that construction required this kind of reliance all the time. In construction, especially on complex projects, there may be many specialist trades. This means not everyone will have the expertise to understand what is being done and will have to rely on that person’s experience.

Outcomes

Relying on individuals is important, but the ultimate outcome of a project is to deliver a functioning product to the client. People are more likely to trust those people they think are competent, or “up to the job”.

Figure 1 shows how trust is linked to communications, actions and outcomes. Trust emerges where information is reliable; people stand by their promises; and the outcomes match or exceed people’s expectations. When people’s expectations are not met, suspicion rather than trust, emerges.

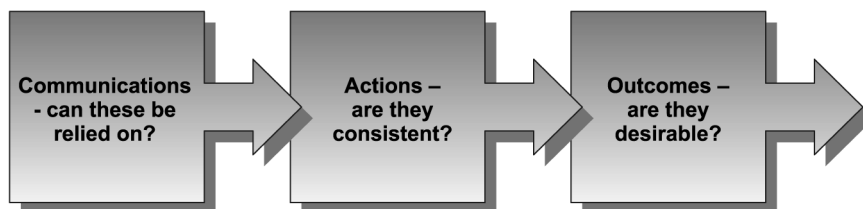
Building trust

The interviewees understood that trust is not an isolated incident. Trust is built up over the course of a project, or many projects in some cases. People build relationships with others over many exchanges. In the same way, trust can break down. Even if there have been situations where trust has been built, things can happen to break trust, and it is not always easy to rebuild it.

Levels of trust

Interviewees had different views of trust, and the way it was built or broken, based on their position within the organisation. The more operational the individual, such as foremen or tradesmen, the quicker trust needs to be established. At the same time, however, these individuals

Figure 1 Communication, action and outcome



had a more limited view of trust, focussing on tasks or projects. Directors and senior management that were interviewed focussed on relationships at a more strategic level as illustrated in Figure 2.

Reputation – individuals and organisations

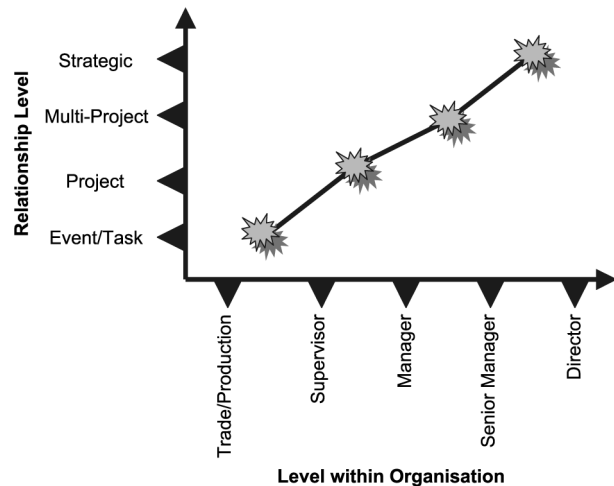
Most of the individuals interviewed stated that they tended to trust people rather than companies. However, the role of an organisation’s reputation was important for two main reasons.

Firstly, construction was considered a “small world”, where people constantly worked with the same people over many years. Organisations built reputations and this had an impact as to whether people felt comfortable about working with them in projects.

Although most of the interviewees said that they trusted individuals and would always give them “the benefit of the doubt”, they revealed that an organisation’s reputation would cloud the decision as to who to trust on a project. For many of the interviewees, reputations were important indicators of who could be trusted, which is why many companies regarded their reputations as an important intangible asset.

Secondly, trusting relationships are not just inter-organisational, but also intra-organisational. Effective teams are built when people have authority to make decisions and the information that they are passing between one another is honest and accurate. If an organisation does not trust its own people, its ability to build trusting relationships with other companies can be severely hampered.

Figure 2 Levels of trust building



How do we build trust?

The building of trust is important. It is clear from the interviews that many individuals do start from a “baseline” level of trust, where they are prepared to put their faith in someone, but there are factors and instruments that enable trust to be built and allow for more effective working. The main ways of building trust are:

- *Experience.* Working with people on a day-to-day basis.
- *Problem solving.* How sharing and solving problems helps communications.
- *Shared goals.* A joint understanding of the roles and aims of project work.
- *Reciprocity.* Team members supporting and rewarding each other’s trusting behaviour.
- *Reasonable behaviour.* Working fairly and professionally with the people in the project team.

Experience

People build relationships by working together. All interviewees stated that they learned to trust or not to trust people that they work with. Repeated fulfilment of communications through action and outcome creates trust. If people consistently prove themselves to be reliable they will be trusted. One client stated:

Spending time with people and working with them [is important]. Even if you have no experience of working with someone, there is trust, but obviously the proof of the pudding is in the eating. If you have worked on a project and you have been let down, you may not use that contractor or consultant again.

Problem-solving

Construction can be unpredictable. As time goes on problems can arise. New information or changes to the project are not uncommon. The nature of trust is not just about how people work together when things are going well, but also about how they work together to solve problems. The ability of project teams to solve problems together is vital.

Problem-solving to mutual satisfaction is easier when project teams trust each other. Site personnel saw problem-solving as an important element in building trust, especially if it is solved at point of the problem, rather than being referred to their superiors. This approach was seen as beneficial as it built a positive experience of working together.

At the more senior level, when people could solve problems without referring to contract, it was seen as something that could build relationships. The alternative experience could create real problems in the long term:

... basically the problem came from a verbal instruction which, further on down the line, caused a problem. The problem came to light and it was causing massive difficulties. All the different players in that problem were brought together. They were all there with their defences. I think everybody was ready to point the finger. I found a solution and tried to minimise it. The problem was being blown up out of all proportion ... I presented the problem in it’s minimum form with a solution. When that was tabled all the defences went back in the briefcases. If the problem had been blown up and the fingers been pointed and then the relationships would have been soured for the rest of the [project]... I think everybody was trying to cover themselves without incriminating anyone else. Everybody has to work together. I think it help build trust within the team.”

Shared goals

Both of the case study project teams involved in this research project looked towards team building as forming a basis for trust. This is highlighted as important for two main reasons.

The first is that it allows for the creation of shared goals (Figure 3). Shared goals mean that everyone can be seen to fulfilling a joint task, rather than viewing their own role as separate from the rest of the project team. The understanding of a shared goal means that the communication is improved.

The second is the creation of “mutual understanding”, which is inextricably linked to the idea of shared goals. This means that the project team understands the position of other members of the project team, or their individual or organisational goals, and appreciates the difficulties they may experience:

When people treat you as a member of the team you can begin to communicate. They will understand what you need from them and vice versa.

Reciprocity

Respondents felt that if they had put themselves out for people, making sacrifices to make the other people’s lives easier on the project, then it was important that the favours were returned. Failure to do so can stop a relationship before it starts:

Reciprocity is vitally important. If I am going to go out of my way for someone, it is nice to know that when I need them to, they will go out of their way for me. It helps build the relationship.

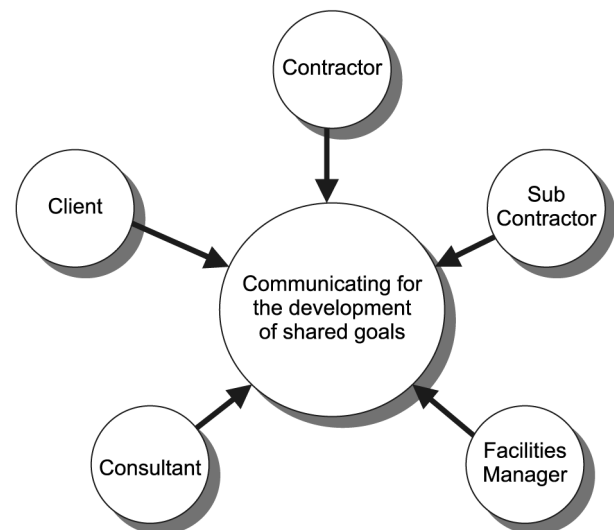
Reasonable behaviour

The idea of behaving reasonably was raised by many of the interviewees. For the more senior interviewees it was felt that it was about behaving “professionally”. At the production level people talked about being “easy going” and “pulling their weight”. The idea of reasonable behaviour is not necessarily about being non-confrontational, but it is about understanding what the people that you are working with understand as reasonable:

Building relationships depends on the individual. Some people can engage in conflict and some people can’t.

Interviewees stated they were more likely to respond to people who they liked, but this did not guarantee trust. If they did

Figure 3 Creating shared goals



not personally engage with someone, it did not mean they would not trust them.

Breakdowns of trust

People were very clear as to why trust broke down. It concerned people not fulfilling their obligations or “telling lies”. It represented the opposite of the trusting behaviour that is mentioned earlier in this paper. However many interviewees were willing to look beyond the event itself. The issues that arise when there are difficulties in relationships are:

- *Circumstances beyond our control.* What happens when outcomes are affected by external factors?
- *We are all human.* Understanding that mistakes can happen and can be learned from.
- *Fair representation.* Making honest and open assessment of what problems are and why they have occurred.
- *Fixing the problem.* How the interviewees felt problems could be solved and relationships repaired.

Circumstances beyond control

The interviewees understood that things rarely happened in isolation. Quite often problems were a culmination of things rather than any single individual’s fault. If the communication is good within a project team they may quickly identify the problems and move to solving them. If events are beyond someone’s control, the interviewees felt they would be sympathetic. This does, however, depend on the facts being made clear. The interviewees also stated that if the problem is made clear as soon as it has come to light, it is often easier and cheaper to solve. A willingness to make people aware of problems minimises their impact.

“We are all human”

A comment often heard was “we are all human”. People understand that mistakes can be made. There may be misunderstandings or incorrect choices made. These were generally considered to be part of learning, and trust enables this, as people are able to communicate what has happened more effectively:

We should consider mistakes a consequence of being human. If we have someone make a mistake we should take it as an opportunity to learn and try to avoid it happening again. We should also be prepared to own up to our own mistakes, if we have done something wrong we should own up to it in the same way.

Fair representation

A successful and trusting project team will have fair and free access to enable communication between all the parties, where people can communicate without fear of their message being distorted. Interviewees stated they had experience of projects where access has been controlled and they felt they were not getting fair representation and this often caused a breakdown of Trust between team members. One contractor stated that this rigid flow of communication, often found in traditional approaches, could create problems:

We need to rationalise communications. [Some parties] have deliberately kept communications in a traditional manner because it is good for them. They control the information flow; they control the ear of the client and pass it to the dumb contractor at the end who does as they are told. Because we have a relationship with the client [on this project] we can give and get information.

Fixing the problem

People stated that there were some cases where trust could not be fixed. This generally occurred where they felt the

intention of the behaviour that caused the breakdown was malicious, if they felt they had been “stitched up”. However, in other cases they felt that things could be done to repair the damage. The main issue was to maintain communication. A problem was viewed as insoluble if there was no continued communication:

I think I would try to repair a relationship in any event ... I would try some kind of communication. I think sometimes we shy away from being upfront with one another. I think you have got to try because some form of communication has to help.

The main approach to fixing the problem was considered to generate a forum for discussing it, rather than ignoring it. The team finds a solution to the problem and moves on.

Company factors

In the final sections of the paper, other factors that lead to trust outside those of individual behaviour are discussed, which can have an impact. In this section we look at the issues of company culture and the effect financial position can have on how people behave on projects. Company factors that have an impact on trust are:

- *Culture.* What are the values that are important to companies and how to individuals express this in project work?
- *Money.* How does money affect an organisations ability to engage in trusting behaviour?

Culture

As stated earlier, companies have reputations and these are often based on people’s experience of working with them. Respondents noted that when individuals behave in an adversarial way they were often reflecting the “policy” of their organisation. Their way of working is dictated by the leadership of their organisation. At the more senior level of the interviewees, a need was felt for some cultural change throughout the industry:

I think we have moved on with things like Egan. Higher up in management people have realised that you cannot go on just trying to make a killing ... I think there are organisations that did have cutthroat reputations. A lot of them are now trying to rectify the mistake of having that reputation. The reputation can cost them money if people are wary.

A company that is going to work in trusting teams, needs to have the organisation’s leadership support for this approach. The majority of interviewees at the manager, senior manager and director level felt that any policy to pursue the trusting way of working had to come from the top, at director level. However, it was noted by one interviewee that this must be supported by an equivalent commitment to implement and support the policy at all levels.

Money

The financial position of an organisation also plays a vital role in building trusting relationship. Companies who are in difficult positions tend to be forced into underbidding for work in order to gain it. If a company does this then it may be forced to make a profit through changes to the contract. In the worst circumstances this company may be forced out of the project team due to financial difficulties, hence it is usual to do financial checks at tender stage.

For trust to be built, it is important that companies are financially stable. If a company is in difficulties it may be forced into untrustworthy behaviour merely to survive. This

supports the argument that larger companies should look at protecting the long-term profitability of smaller sub-contractors in order to allow relationships to be maintained.

Project factors

All projects vary in scope, size and complexity. These factors have an impact on the levels of trust that can be maintained. In the case studies one project was approximately ten times the cost and length of the other. What do these differences make to how trust impacts relationships and project performance? Project factors that can influence the need for trust are:

- *Project size.* Does project size influence trusting behaviour?
- *Project complexity.* Does technical and organisational complexity make it more important to trust?

Project size

Smaller projects have less people, which most of the interviewees felt made it easier to manage the relationships, as people working on larger projects may not even meet. There are a limited number of relationships that people can maintain and time is required to build and maintain trust:

I have a operational team I invest time in. The most important thing you can give anybody is time.

Smaller projects will have less people in the supply chain, so they will understand one another's roles and communicate with a greater percentage of people within the project team. However, smaller projects often run to shorter time frames and the money available for team building may be limited, unless there are a number of repeat projects.

Larger projects with more people involved may limit opportunities for working with some partners, but they offer more time and scope for developing long lasting key relationships:

Large projects require different levels of trust. Small projects will have less people within the contract than a large contract, where there are more people to trust. You cannot be paranoid that everyone is out to get you otherwise you will not last. You have to put a certain amount of trust with the people you contract with.

Individuals working on smaller projects noted that relationships were more oriented around tasks and problem-solving, rather than relationships built by design teams in longer projects.

Larger projects, generally, have a higher value. This means that the cost of decisions to trust can be higher. This can impact the decision to trust. Smaller projects, where the value of these decisions is lower, can lead to greater levels of trust due to the lower risk involved.

Complexity

The greater the level of complexity in a project, the greater the need will be for trust. There are three main reasons for this.

Firstly, a complex project may contain many specialisms that all parties may not be competent in. This means they rely on the communications and actions of specialist contractors and suppliers to complete the project.

Secondly, a complex project will have more information. The communications aspect of trust is important, so the more information passing between people then the more important it is that people can rely on these communications.

Finally, at the site level there will be multiple interfaces between different trades and organisations. To limit conflict at this level, there needs to be a high level of information exchange to ensure people are working together effectively. This kind of complexity can be mitigated through inclusive planning.

Contracts

Contracts and agreements form the basis of the relationships that many individuals enter into. Interviewees highlighted that sometimes that contract types may influence the ability of parties to form trusting relationships. The factors may be:

- *Contract form.* Does the type of contract influence trust?
- *Is the contract fair?* What are the issues surrounding fairness of contracts between the parties?
- *Formal vs informal.* How trust impacts formal and informal arrangements in relationships.

Contract form

Contract form could be seen as a factor influencing the development of trusting relationships. Traditional approaches may be seen as supporting the adversarial approach to construction projects.

Partnering is seen as a useful instrument for building trust in project teams. Continuity of personnel and long-term relationships mean the consequences of relationships are placed in a longer-term context (see Figure 2). Partnering, although useful in promoting trust is not seen as the only form of contract in which trust can be built.

The client in one of the case studies noted that they had used management contracting, and though they had no formal agreement, often used the same companies again and again in a partnering type arrangement.

Is the contract fair?

For trust to be built, it is important that all parties involved feel they are getting fair reward for the work they are putting into the project. If the profit level is equitable and, in some cases protected, then the partners do not feel the need to squeeze more profit through the use of claims, variations and day rates:

There is an element of mistrust whenever there is money. People are trying to get one up on somebody whenever there is a profit. You may make a quick buck on one job, but if you want repeat business you have to give a fair and reasonable price on each job. That is coming out more and more.

The contract price must reflect the work that has been done. It should not expect the client to bear inefficiencies, but it should not be onerous on the contractor. If the contractor has been forced to "buy" work then trust immediately becomes a problem, as they have to try to manage the contract in order to make a profit.

The issue of open book accounting was raised by some of the interviewees, stating that although it may help, it was not really about trust. If the project team organisations trust one another they should be entitled to a certain amount of privacy.

Formal vs informal

Some interviewees felt that recourse to the contract was an indicator of a lack of trust. People should know their responsibilities and obligations without the need to refer to the contract. It was felt important to put the contract to one side and work on developing trusting relationships:

I guess it comes down to a lack of formality which cuts through the paperwork. When you have the trust between individuals you cut through the contract. It stays in the drawer. People understand where you are coming from and the reciprocal is true. People understand what they expect of you. You don't want to let people down and they don't want to let you down.

Once you have sorted out the nitty gritty of the contract we will put it in a drawer. We will now have to talk about how we are actually going to do the job. If you go back to the contract it is a failure. It's also a failure if you have to go back to the contract and start beating each other in terms of price.

Although the contract was considered important, it was felt by many that the contract should not be used as something to "beat each other over the head with". The contract should outline what needs to be done and the project team should get on with achieving their joint goals.

Macroeconomic factors

The interviewees were divided as to how macroeconomic factors affected the development of trust within individual projects.

Some interviewees felt that the buoyant nature of the market at the moment created a strong base for building trusting relationships:

I think we are riding on a wave of prosperity at the moment so we can afford the luxury of trust and working together. When it gets down to it if someone do a job for £50 and someone else do it for £30 then the trust will disappear. I think that has happened in the past. At the moment it is reasonable and if you don't get the work, no-one will starve.

However, other interviewees felt that trusting relationships should form the basis of working relationships regardless of the economic conditions:

The state of the economy is not relevant. It is about meeting client demands. People have to try hard to achieve this whether we are in a boom or a slump.

It should be noted that the condition of the market could be considered closely related to the way contracts are pursued. In difficult market conditions price competition may become more intense and give rise to contractual arrangements that put contractors under pressure to squeeze out extra profit.

Summary and conclusions

There is a sense that there needs to be a cultural change, a move from a "blame culture" to a "problem-solving culture". The cost of problems and the ability of the team to adapt to new situations are greatly improved if there is a climate where people can give information freely and as soon as they are aware of the problem.

Any cultural change within a construction team needs to be at all levels, especially the middle managers, supervisors and foreman, who serve as a conduit for policy and its implementation at the "coalface". Interviewees highlighted examples of the success and failure of this "buy-in" and the implications this had for projects.

This building of trusting teams must, ultimately, be about improved project performance. Construction is a business and operates for profits. Many of the senior managers of organisations stated they are pursuing this approach for one main reason, profit. Any approach in building trusting teams has to accept the commercial realities of the construction industry. It may be impossible to remove contracts, but it is also difficult for teams to be built if individuals are unwilling to adapt to changing information as construction projects progress.

References

- Egan, J. (1998), "Rethinking construction", report of the construction task force on the scope for improving the quality and efficiency of UK construction, Department of the Environment, Transport and the Regions, HMSO, London.
- Khalfan, M.M.A. and McDermott, P. (2006), "Innovating for supply chain integration within construction", *Journal of Construction Innovation*, Vol. 6 No. 3, pp. 143-58.
- Latham, M. (1994), "Constructing the team", final report on joint review of procurement and contractual agreements in the UK construction industry, HMSO, London.
- McDermott, P., Khalfan, M.M.A. and Swan, W. (2005), "'Trust' in construction projects", *Journal of Financial Management of Property and Construction*, Vol. 10 No. 1, pp. 19-31.
- National Audit Office (2001), *Modernising Construction*, The Stationery Office, London.
- ### Further reading
- Allen, S. and Carmichael, S. (1996), "Is partnering a state of mind? A comparison of manufacturing and construction", *Partnering in Construction*, University of Salford, Salford.
- Allen, S. and Cooper, R. (1999), *Partnering Interim Report*, University of Salford, Salford.
- Bachmann, R. (2001), "Trust, power and control in trans-organisational relations", *Organisation Studies*, Vol. 22 No. 2, pp. 337-65.
- Barlow, J. and Cohen, M. (1996), "Implementing partnering: some common red herrings in the literature", *Partnering in Construction*, University of Salford, Salford.
- Benheim, M. and Birchall, D. (1999), "Networks in the construction industry: emerging regulation procedures in the production process", paper presented at Profitable Partnering in Construction Procurement, CIB W92 and TG 23 Joint Symposium, Routledge, Thailand.
- Blois, K. (1998), "A trust interpretation of business to business relationships: a case-based discussion", *Management Decision*, Vol. 36 No. 5, pp. 302-8.
- Blois, K. (1999), "Trust in business to business relationships: an evaluation of its status", *Journal of Management Studies*, Vol. 36 No. 2, pp. 197-215.
- Cummings, L.L. and Bromiley, P. (1997), "The organisational trust inventory", in Kramer, R. (Ed.), *Trust in Organisations*, Sage, Thousand Oaks, CA.
- De Ruyter, K., Moorman, L. and Lemmink, J. (2001), "Antecedents of commitment and trust in customer-supplier relationships in high technology markets", *Industrial Marketing Management*, Vol. 30, pp. 271-86.
- Hammer, M. (1985), "Implications of behavioural and cognitive reciprocity in social network data", *Social Networks: An International Journal of Structural Analysis*, Vol. 7, pp. 189-201.
- Latham, S.M. (1993), *Trust and Money*, Department of Transport and Regions, London.
- Lok, P. and Crawford, J. (1999), "The relationship between commitment and organizational culture, subculture, leadership style and job satisfaction in organizational change and development", *Leadership & Organization Development Journal*, Vol. 20 No. 7, pp. 365-73.

- McDermott, P., Khalfan, M.M.A. and Swan, W. (2004), "An exploration of the relationship between trust and collaborative working in the construction sector", *Construction Information Quarterly*, Vol. 6 No. 4, pp. 140-6.
- McDermott, P., Swan, W., Khalfan, M.M.A., Cooper, R., Rees, C. and Wood, G. (2006), "The development of trust inventory", *The Journal of Construction Procurement*, Vol. 12.
- Morgan, R.M. and Hunt, S.D. (1994), "The commitment trust theory of relationship marketing", *Journal of Marketing*, Vol. 58, pp. 20-38.
- Ouchi, W.G. (1980), "Markets, bureaucracies and clans", *Administrative Science Quarterly*, Vol. 25, pp. 129-41.
- Smyth, H. and Thompson, N.J. (1999), "Partnering and the conditions of trust", CIB W55 and W65 Joint Triennial Symposium: Customer Satisfaction: A Focus for Research and Practice, CIB.
- Tschannen-Moran, M. (2001), "Collaboration and the need for trust", *Journal of Educational Administration*, Vol. 39 No. 4, pp. 308-31.

- Tyler, T.R. and Kramer, R. (1996), "Whither trust?", in Kramer, R. and Tyler, T.R. (Eds), *Trust in Organisations*, Sage, Thousand Oaks, CA, pp. 1-15.
- Walker, D. and Hampson, K. (2003), "Developing cross team relationships", in Walker, D. and Hampson, K. (Eds), *Procurement Strategies: A Relationship-Based Approach*, Blackwell Sciences, Oxford, pp. 169-203.
- Wood, G. and McDermott, P. (1999), "Searching for trust in the UK construction industry: an interim view", paper presented at CIB W92 International Procurement Conference, AIT, Thailand.
- Yin, R. (1994), *Case Study Research: Designs and Methodology*, Sage, Thousand Oaks, CA.

Corresponding author

Malik M.A. Khalfan can be contacted at: m.m.a.khalfan@salford.ac.uk