

# PERCEPTION ON SUCCESS AND FAILURE FACTORS FOR CONSTRUCTION COLLABORATIVE RELATIONSHIPS

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## ABSTRACT

Collaborative arrangements such as joint ventures, strategic alliances, project and strategic partnering, partnership (including public private partnerships, prime contracting) and outsourcing are increasingly being used in construction project developments with the intent that the construction project stakeholders will work together in an environment of trust and openness. Based on a UK wide postal questionnaire survey, the opinions of contractors were assessed on the factors that are responsible for the success and failure of collaborative relationships in construction development. The research shows that UK contractors are positive about collaboration and are engaged in collaborative relationships for construction developments. 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. The main criteria that the respondents would want the success of collaborative relationships to be measured against are profitability (including cost/budget reduction), client satisfaction and creation of more collaborative relationships.

**Keywords:** joint venture, strategic alliance, partnering, partnership, success factor, failure factor, collaborative relationship, culture.

## 1. INTRODUCTION

Business collaborations are now prevalent across different business sectors. These have developed in various forms including joint ventures, strategic alliances, partnering, partnerships, outsourcing, etc. The early 90's saw the increase in collaboration between companies in the manufacturing industry. This arose from commercial pressures relating to increased competition, higher research and development (R & D) costs, increasing pace of product innovation and technological development and the increasing internationalisation of industries (Leverick and Littler, 1993). To stay not only in business but to remain competitive, manufacturing firms had to look at ways that would improve performance and profits. For many manufacturing firms this was achieved by using collaborative processes. In the summary report of their conference on 'Collaboration for Competitive advantage: the changing world of alliances and partnerships, Stiles (1995) identified the need that spurred collaboration across the world to include: increasing globalisation,

competitiveness, risk and uncertainty within the business environment, businesses as diverse as insurances, airlines and computers are recognising the need to collaborate in order to survive. He noted that companies considering new market ventures or planning long-run research and development programmes are finding that collaboration offers the opportunity to spread the risks of this form of investment.

Crouse (1991) indicated the demand from customers has been responsible for the push for partnerships given that they have become more knowledgeable and are faced with more choices over a shorter period of time. In addition he argued that customers want the best solutions for the best price without being locked in with any one vendor. Consequently, the response to this demand by industry while at the same time meeting the objectives of getting products to market faster, increase market share, improve quality and service, improve productivity, reduce cost and improve profitability has brought about the need for partnerships. The survey by the Economic Intelligence Unit in 2003 (cited by Anslinger, 2004) noted that the main reason cited by Chief Executive Officers for increasing dependence on external relationships are the need for fast and low-cost expansion into new markets and greater control/influence of the customer relationship.

In the UK construction industry, two government reports have specifically addressed the need for change to improve the industry: the Latham report (1994) and the Egan report (1998). These reports have a recurring theme in that they both suggest the industry could achieve expected improvement through greater teamwork not only at site level and organisational level but also with clients and suppliers. Recommendations within these reports have led to an increasing use of collaborative arrangements such as long-term/strategic arrangements, partnering, joint venture, public private partnerships, prime contracting and supply chain management in order to improve the construction development process. However it may be anticipated that not all the collaborative relationships in construction developments will be successful. This paper therefore addresses the factors that may be responsible for the success (or failure) of construction collaborative relationships. The research that formed the basis for the paper replicated a survey undertaken on collaborative relationships in the manufacturing sector by Leverick and Littler (1993).

## **2. GENERAL OVERVIEW ON COLLABORATIVE RELATIONSHIPS AND SUCCESS FACTORS**

Douma et al (2000) tackled collaborative relations from a strategic alliances angle and noted that due to the ever increasing pace of technological developments and access to new technologies, alliances have become a key success factor in many industries. In addition, they found that there is now a shift from 'traditional' cost driven alliances to a knowledge-intensive alliances, where inter-partner learning is a major objective. Spekman et al (1996) concluded from their study, based on in-depth interviews with managers on both sides of five strategic alliances, that successful alliances have their origin at the top of the organisation. Even those alliances of lesser stature and which are managed at lower levels within the organisation must have the blessing and support of the top management.

Brouthers et al (1995) identified 4Cs under which strategic alliances should be utilised; this they termed the major forces involved in helping assure success: complementary skills are offered by the partners, cooperative cultures exist between the firms; the firms have compatible goals; and commensurate levels of risk are involved. Medcof (1997) also identified different 4Cs for successful alliances: capability (are the prospective partners capable of carrying out their role in the alliance?); compatibility (are they compatible operationally); commitment (are they committed to the alliance and its strategic aims); control (are the control arrangements for the coordination of the alliance appropriate?). The conference report on collaboration by Stiles (1995) indicated that successful collaborative partnerships and strategic alliances need to be developed as part of the overall strategy of an organisation that requires initial identification of clear goals and objectives, and significant attention to the choice and type of partner.

Crouse (1991), on the power of partnerships, enumerated the clear advantages of a balanced partnership relationship: partnering provides the ability to leverage internal investments; focus on core competencies leverage core competencies of other organisations; reduce capital needs, broaden products offerings; gain access or faster entry to new markets; share scarce resources; spread risk and opportunity; improve quality and productivity; having access to alternative technologies; provide competition to in-house developers; use a larger talent pool and satisfy the customer.

Anglinger and Jenk (2004) identified five forms of alliances that have application to the various forms of collaborative relations: (1) invasive where the partners share a significant amount of technology, personnel and strategy and derive value from a true combination of perspectives and resources, often accompanied by co-location. However because partners objectives are varied, it is noted that it is harder to gauge success or monitor success hence this requires more elaborate governance and senior management involvement for this form of alliance to be successful. (2) Multi-function which encompasses multiple spots on the value chain and brings together R&D functions or development and market with the aim to maintain or build momentum for commercialisation, improve approval chances and speed time to market. (3) Multi-project which involves existence of multiple alliances within a single company to reduce transaction costs and give partners a first look at each other's products or right of first refusal (4) Coopetition which involves cooperating with competitors with the benefit of sharing development costs, along with access to cross-pipeline expertise and reduce transaction costs (5) Networks which is a case of multiple partners grouped in a single alliance to access diverse technologies and skills, share costs, build market momentum and bundle related products into a full customer solution.

Douma et al (2000) are of the view that the need to cooperate is determined by pressure on continuity, market opportunities, time pressure or the number of alternative options (such as autonomous development or acquisitions). They identify the six drivers for strategic fit in collaboration: (i) that cooperation is only advisable when partners have a shared vision of future development within the industry in which an alliance will be formed, and of the impact that these developments will have on their individual positions; (ii) that precondition for strategic fit is compatibility of strategies; (iii) that the alliance partners will only be prepared to make concessions when the alliance is of strategic importance to them; (iv) a successful alliance requires mutual dependency; (v) any alliance should have added value for the partners and /or

their customers and (vi) partners must carefully consider whether the market will accept that alliance.

Daulans et al (2003) noted that rather than strategic fit between the partners and the characteristics of alliance, the capacity which an organisation has built up in managing alliances (including alliance training, cross-alliance evaluation, use of alliance specialists) makes an important contribution towards enhancing alliance success. Sonnenbery (1992) identified ten principles of a solid partnership as follows: both partners gain from the relationship; each party should be treated with respect; promise only what can be delivered; specific objectives should be defined before the relationship is firmly established, striving for a long-term commitment is important to both parties; each side should take the time to understand the other's culture; each side should develop champions of the relationship; line of communication should be kept open; the best decision is one made together and preserve the continuity of the relationship.

Lorange and Roos (1991) came up with two political considerations (stakeholder blessing and internal support) and two analytical considerations (strategic match and delineation of strategic plan) as the foundation of a successful strategic alliance). Shaughnesy (1995) on the other hand argued that the most important prerequisite for success in international joint ventures is that the parties should share the same objectives without ensuring that each partner's total objectives and goals match, which is to invite disaster. He therefore identified pre-contract partner training needs to look at five factors for managing successful collaborations: communication goals (comprises training in interpersonal relationships and conflict management); performance goals (shared goals are identified and developed); dispute resolution (consideration is given to the need for timely resolution of disputes); evaluation (both parties agree a continuing evaluation of the team's performance during the length of the contract); and commitment (to a partnering agreement that embodies the spirit of collaboration and which is separate from the venture contract). Spekman et al (1996) are of the view that successful collaborative relationship must implement blameless review processes at scheduled intervals to ensure that the relationship is on course despite those internal/external pressures which might affect its direction.

This review of previous publications has shown that collaborative relationships are used in many industries including manufacturing, retailing, construction and service sectors. Although, collaborative relationships can take different forms the literature review has drawn mainly from strategic alliance where this has been utilised to help assure success and complement skills. The review has show that some of the factors responsible for the use of collaboration in the recent times are access to new technologies, fierce competition, the need to focus on core business, risk sharing, and market opportunities. However, there are different factors that could be responsible for the success or failure of collaborative relationships. The success factors identified include top management support, complementarities of skills, cooperative culture, shared goals and objectives; etc. The extent to which these factors are relevant to collaborative relationships in the construction environment are explored in this current study.

### 3. RESEARCH METHOD

This paper presents UK contractors opinions on the success and failure factors of collaborative relationships and how the success should be measured. This is part of a questionnaire survey that sought UK contractor's opinions on the risks and rewards of collaboration in construction development. A four page questionnaire, accompanied by a covering letter, was sent to managing directors of sample firms. The letter indicated the objectives of the research and requested that the questionnaire should be completed by a senior member of staff involved in construction development in the firm. The questionnaire design was based on a combination of an extensive review of literature dealing with collaboration in construction, the researcher's general knowledge of collaboration in UK construction and Leverick F and Littler D (1993) survey on the manufacturing industry. The overall aim of the research was to establish whether collaboration can be used to improve the construction industry. The main limitation of the current study is that the research is based on the survey instrument derived from Leverick and Littler (1993) study. However, more recent literature on the collaborative relationships tend to suggest that the practice involved in collaborative relationships in terms of influencing factors have not changed much and that the factors identified by Leverick and Littler are still very much relevant in many industries where collaborative relationships have received continuous growth in usage. In an attempt to reflect on the validity of the current study the results were compared with Leverick and Littler findings. In addition, open ended questions were included for the respondents to supply missing gaps.

The questionnaire was divided into six sections exploring collaboration in construction. Contractors were asked their opinion on the reasons for collaboration in construction, the role of collaboration in construction and the risks of collaboration. The questionnaire also looked at success and failure factors in construction collaboration. The final section of the questionnaire looked at the use of information technology within construction collaboration. The questionnaire used the five point Linkert scale with '5' indicating "great extent" or "most important" and '1' indicating "insignificant extent" or "least important". The questionnaire was sent to 250 companies of which 63 responded giving a response rate of 25.2%. With the exception of two respondents, the questionnaire was completed by senior members of the industry. All the respondents firms have engaged in a form of collaborative relations involving various construction stakeholders (clients, other contractors, subcontractors, suppliers, manufacturers and consultants).

The respondents were split into two groups (SME's and Large) based on their number of employees, to determine whether their responses varied with size as part of the analysis. Watts (1980) highlights that the size of a company can be measured in terms of number of employees, net assets (capital employed), value added (net output) and Turnover. Table 1 shows a grouping of the firms based on number of employees according to the UK Department of Trade and Industry that categorises as Small Medium Enterprises (SMEs) the firms with less than 250 employees. The Table includes the number in each group, the mean number of employees and the standard deviation for each. Statistical analyses, based on Analysis of Variance (ANOVA) F statistics and associated probability values (p), were undertaken as presented in Tables 2 and 3 on the basis of the size of the companies (SME and Large) to show if the two groups share the same views on the success and failure factors. Where p is less than

0.05 it means that the two groups have different opinion on that particular factor, otherwise their views are similar.

Table 1: Employment

Group	Employees	Frequency	%	Mean	Std Dev.
SME	Less than 250	32	50.8	109.53	67.28
Large	Greater than 250	31	49.2	3873.84	9473.41
	Total	63	100	3983.87	9540.69

#### 4. FACTORS RESPONSIBLE FOR SUCCESSFUL COLLABORATION IN CONSTRUCTION

Table 2 shows the contractor's opinions on the factors responsible for successful collaboration. The most important factor is senior management's close involvement in the collaboration process, followed by the relationship being perceived as very important to the partners coupled with the benefits between collaborators being perceived as 'evenly' distributed. These factors are generally rated higher by large contractors compared with the SMEs. The results corroborate a study by Bresnen and Marshall (2000) that found senior management support very vital in making a collaborative approach both credible and legitimate. In all cases, partnering or alliancing had been championed at the highest levels of the organisation and the general perception was that goal alignment and good relationships at these levels were crucial. Spekman et al (1996) noted the importance of senior management support as they bear responsibility for several key aspects of the alliance formulation process: they ensure that the alliance is tied to the strategic intent of the firm; and must drive the alliance vision down through the organisation. In support of this Anslinger (2004) emphasised that a successful alliance must take one of two forms of structure: have a strong structure with centralised leadership or provide clear rules for decision making.

For any collaborative arrangement to work, relationships between parties need to be good. Luck et al (1996) consider teambuilding within construction project companies essential for achieving performance improvement, and successful construction projects. Teambuilding is performed by co-ordination and integration of project organisations to increase productivity, efficiency, motivation, goal attainment, group dynamics and dispute minimisation (Kumaraswamy, 1996). The issue is that such teams become acquainted and familiar with those working around them. However, the temporary nature of construction projects and role ambiguity are barriers and constraints to such teambuilding in construction (Luck et al., 1996). Given the deficiency of the current practice Särkilahti (1996) has proposed that the performance of construction project organisations could be improved if the temporary nature of project organisations could be changed by entering into collaborative arrangements to encourage repeated working among a number of firms beyond the scope of one-off construction projects.

Generally, however, large contractors rated the reasons for successful collaboration in construction development higher than SME's. The reason for this could be that large contractors tend to work in more collaborative arrangements than SME's due to their work load and the complexity of projects they undertake. With the exception of 'the relationship was perceived as being very important to the collaborators' and

‘corporate systems and management style was flexible’ the ANOVA analysis shows, however, that the opinions of the SME and large contractors did not differ on each of the factors at the 5% significance level. The rating given to ‘corporate system and management style flexibility’ by SME was significantly higher than large contractors; this is probably because SME’s tend to be smaller partners or sub-contractors in the construction development process and therefore are more used to being managed than managing.

Table 2 Factors responsible for successful collaboration in construction.

<b>Factor</b>	<b>Overall</b>	<b>SME</b>	<b>Large</b>	<b>F Stat.</b>	<b>P-value</b>
Senior management were closely involved in the collaboration	4.063	4.031	4.097	0.063	0.803
The collaborative relationship was perceived as being very important to the collaborators	4.016	3.750	4.290	5.565	0.022
Benefits between collaborators were perceived as 'evenly' distributed	3.778	3.688	3.871	0.642	0.426
Corporate systems and management style was flexible	3.778	4.000	3.548	5.491	0.022
There was clear project planning with defined task milestones	3.714	3.688	3.742	0.056	0.814
A long term view of strategic benefits was taken	3.683	3.688	3.677	0.002	0.966
Adequate staff resources were made available to the collaborators	3.635	3.625	3.645	0.008	0.929
Sufficient time resources were made available to the collaboration	3.619	3.531	3.710	0.632	0.430
Sufficient budgetary resources were made available to the collaboration	3.603	3.688	3.516	0.662	0.419
Purely financial measures of progress in the collaboration were avoided	3.365	3.344	3.387	0.030	0.864
The product or concept being developed was highly innovative	2.778	2.781	2.774	0.001	0.980

The factors responsible for successful construction collaboration in the development process are similar to Leverick and Littler (1993) study into collaboration in the manufacturing industry. Both surveys rate the ‘importance of the relationship’ and ‘benefits being evenly distributed’ high in their responses. However the role of senior management in collaboration was not perceived to be a significant factor in the success of collaboration in the manufacturing industry. The reason for high importance of senior management support for collaborative relationships success in the construction industry compared with the manufacturing industry could be the nature of the construction industry: its renowned fragmented nature and therefore for collaboration to work in construction there needs to be effective communication between parties, with senior management taking control and responsibility for key decisions. The two factors rated lowest in both surveys for successful collaboration were ‘purely financial measures’ and ‘the product was innovative’. Generally the results of both surveys are similar which might suggest that the construction industry and manufacturing industry agree on what are needed for successful collaboration relationships.

The respondents were further asked open ended question to the identify factors that mostly contributed to success of collaboration in the construction environment. A high level of commitment and trust were the most frequently mentioned factors for successful collaboration. Other factors mentioned in an order of importance are shared risk; responding to clients needs; good communication; sufficient resources; improved efficiency; and understanding individual roles of the partners.

## 5. FACTORS RESPONSIBLE FOR UNSUCCESSFUL COLLABORATION IN CONSTRUCTION

Anglisger and Jenk (2004) reported the Accenture research that about half of all alliances fall well of expectations due to the following causes in order of importance: shift in partners strategic direction, senior management attention wanders; champions move on; lack of career path and shortage of staff; and clash of corporate cultures. Sconnenbery (1992) identified important reasons why partnerships fail as lack of commitment, cultural differences, poor management, poor communication, and failure of individual relationships (i.e. where individuals involved in the partnership lack interpersonal skills or personal chemistry may be missing). Table 3 shows the UK contractors' opinions on the factors that are responsible for unsuccessful collaboration. The most important factor is collaborating partners' failure to contribute to the partnership needs, goals and objectives as expected. This is followed by lack of trust between the collaborating partners and lack of frequent consultation between them.

Table 3: Factors responsible for unsuccessful collaboration in construction

<b>Factor</b>	<b>Overall</b>	<b>SME</b>	<b>Large</b>	<b>F Stat.</b>	<b>P-value</b>
The collaborating partners failed to contribute as expected in the partnership charter	4.016	3.813	4.226	3.704	0.059
There was little trust between the collaborating partners	3.952	3.844	4.065	0.708	0.403
There was a lack of frequent consultation between the collaborating partners	3.714	3.906	3.516	2.340	0.131
Little attention was given to the issues involved in the collaboration	3.571	3.750	3.387	1.936	0.169
Specific roles and responsibilities were not clearly defined	3.571	3.750	3.387	2.131	0.149
There was little consultation between the personnel involved in the collaboration	3.429	3.375	3.484	0.155	0.695
There was little previous experience of collaboration management	2.984	3.313	2.645	6.113	0.016
The construction development did not fit naturally with existing businesses	2.714	2.938	2.484	2.614	0.111

Lack of Trust was rated the second highest failure factor which supports Barlow et al. (1997) that relationships fail to work without trust. Lorange and Roos (1991) assert the reasons often emphasised for failure of collaborative relationship are "lack of trust" and "incompatible personal chemistry". Trust is said not only to reduce transaction costs, make possible the sharing of sensitive information, permit joint



projects of various kinds, but it also provides a basis for expanded moral relations in business (Brenkert, 1998). Latham (1994) commented: "...disputes and conflicts have taken their toll on moral and team spirit. Defensive attitudes are commonplace...."

Latham's (1994) report attempts to re-build trust in the construction industry by advocating partnering. Co-operation among construction project participants requires mutual trust, commitment, involvement, common targets, good communication and joint problem solving (Marosszeky et al., 1997). According to Cooper et al. (1996a) the success of long-term co-operation is highly dependent on cultural and attitudinal factors displayed by the participants. In addition, the success is also dependent on the achievement of identifiable and sustainable performance improvements, and mutual benefits for all collaborating participants (Cooper et al., 1996b). A critical step towards collaboration in construction is to overcome the common culture of conflict, and adopt more ethical behaviour marked by honesty and integrity. Therefore, collaboration could be seen as a process of improving relationships, and a means for encouraging cultural shift from adversarial to non-adversarial behaviour (Hellard, 1995). Gambetta (1998) described reputations are a key to trust in relationships, reputations are expectations others hold of your likely behaviour in a partnering relationship; a partner with a 'good' reputation is more likely to be trusted.

Another failure factor that the contractors rated high was "a lack of consultation between partners". Poor design consultation/management is a primary factor that contributes to poor quality (Love et al, 1999) and time cost overruns in projects (Chan and Kumaraswamy, 1997). In a partnering relationship involving client, design and construction teams, such poor quality and time and cost overruns could emanate from lack of consultation and poor communication practices between the team members.

Undefined roles and responsibilities was the fifth highest contributing factor to unsuccessful collaboration. Collaboration requires clear understanding and distribution of responsibilities, authorities and roles. It requires adequate information flows and communication of these authorities and roles among the collaborating organisations and reliable access to the latest technological and management knowledge (Yashiro, 1996).

With the exception of the first two top failure factors, the SME contractors rated the reasons for unsuccessful collaboration in construction development higher than the large contractors. This is not unexpected as in practice, the smaller partners or sub-contractors (representing SMEs) tend to have subordinate roles in collaborating arrangements and are often ignored. Nonetheless, with the exception of 'the collaborating partners failed to contribute as expected' and 'there was little previous experience of collaboration management' the ANOVA analysis shows that the opinions of contractors did not differ on each of the factors at the 5% significance level.

Comparisons show that the factors responsible for unsuccessful construction collaboration are similar to the results from Leverick and Littler (1993) study into collaboration in the manufacturing industry. Both surveys rate 'failure to contribute as expected', 'lack of frequent consultation' and 'little trust' as the top three factors responsible for unsuccessful collaboration. The two factors rated lowest in both

surveys for unsuccessful collaboration were ‘little experience’ and ‘did not fit within existing business’. The results of both surveys are similar which might suggest that the construction industry and manufacturing industry share similar views on the factors that do contribute to unsuccessful collaboration.

The respondents were asked an open ended question to identify the factors that most contribute to the failure of collaboration in construction project development. This generated many responses which are summarised in the order of significance from the highest to the lowest as: lack of trust; communication breakdown; lack of belief in the system; clash of organisational cultures; unchanging attitudes; lack of planning; varying financial objectives; lack of appreciation for contractual risks; client interference; clash of personalities; disputes not being resolved; and lack of senior management support. This might suggest that the major criteria by which respondents assessed failure of construction development collaborations is behavioural; these measures were mentioned by over half of the respondents as the major criteria for the failure of collaboration. Surprisingly though lack of senior management support was not mentioned as a major criteria for assessing collaboration failure given that this was listed as the top reason for successful collaboration (see Table 2).

## **6. MAJOR CRITERIA FOR ASSESSING THE SUCCESS OR FAILURE OF CONSTRUCTION DEVELOPMENT COLLABORATIONS**

Sonnenbery (1992) argued that a good relationship should accomplish the goals, financial and otherwise that has been established; have ability to resolve conflicts as they arise, settle differences, and compromise when necessary and exhibit a clear pattern of growth and profitability overtime; all of which must be undertaken in an atmosphere of trust. Crouse (1991) noted that a balanced and complementary relationship should add to each company’s core competencies coupled with the partnership being structured to meet the needs of both parties. He argued how equities by the partners in each other businesses can be used as an intention by the parties to develop a long-term relationship.

Table 4: Criteria for success and failure of construction development collaborations

	% of respondents mentioning factor
Profit/revenue/commercial success/budget	88
Client satisfaction	60
Creating more collaboration partnerships	52
Commitment of managers	48
Improved quality of product	48
Improvement in efficiency	32
Benchmarking	24
Trust	20
Improved health and safety record	16
Improved communication	12
Gaining skills from partners	8
Industry KPI’s	8

The respondents were asked an open-ended question to identify the major criteria for assessing the success or failure of construction development collaborations. Table 4 shows that criteria identified with profit/revenue/commercial success/budget (i.e. financial consideration) being the most important.

Similar to Leverick and Littler (1993) survey, the major criteria by which respondents assessed the success of construction development collaborations was the profitability of the resulting construction development. Two other top factors for measuring success of collaborative relationships are client satisfaction and creation of more collaboration partnerships. Fifty two percent (52%) of respondents advocated assessing the success of collaborative relationships according to whether or not the collaboration led to more collaborations; again this is similar to the findings of Leverick and Littler (1993) survey.

The two factors rated lowest for successful collaboration by the respondents as shown in Tables 2 are financial (sufficient budgetary resources were made available to the collaboration and purely financial measures of progress in the collaboration were avoided). However, the most important criteria that the respondent identified in an open-ended question for assessing the failure or success of construction development is profit/revenue/commercial success/budget. This may appear contradictory; however, this tends to suggest that the most important criteria to measure the overall success of collaborative relationships (i.e. output of collaborative relationship) in construction development should be financial (prices/revenue/commercial success) but the day to day assessment of the relationship (i.e. input to collaborative relationships) should de-emphasise financial measures. Rather the factors (or inputs) such as top management support, importance perception of the relationship by all parties, partners equality, clear objectives, etc. should be regarded more important with the expectation that these should lead to overall financial benefits.

## **7. CONCLUSIONS**

The literature searches included in the paper have shown that there is an abundance of new and existing thinking on how various forms of collaborative relationships are and should be used in the business environment. The current paper has identified the success and failure factors of collaboration within the construction environment. Collaborating relationships have been prescribed by various reports from the construction industry as an important tool for dealing with conflicts and adversarial relationships in the construction environment and for attaining and maintaining a competitive advantage. Stiles (1995) concluded that “During the life time of a partnership, key skills associated with relationship building, trust and flexibility need to be developed and applied. If done well, the benefits can be significant, not simply in respect of the current operation, but also in terms of learning that can be achieved and drawn upon in future collaborations.” This is a major advantage that can come from collaboration.

However, while such relationships can pay off, it is important that collaborations are carefully considered to ensure that they fit into the business plans of the organisations that are considering entering into partnerships. The failure factors that the construction industry should consider carefully and address before entering into

collaboration are possibilities of lack of trust; communication breakdown; lack of belief in the system; clash of organisational cultures; unchanging attitudes; lack of planning; varying financial objectives; lack of appreciation for contractual risks; client interference; clash of personalities; disputes not being resolved; and lack of senior management support. Some of the factors that are known to contribute to the success of partnerships in construction are a high level of commitment and trust, ability and willingness to shared risks amongst partners; responding to clients needs; good communication; sufficient resources; improved efficiency; and understanding individual roles of the partners.

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