

## **A CRITIQUE OF INTEGRATED WORKING AND PARTNERING**

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### **Abstract**

*Many authorities have supported the concept of integrated working or partnering. They claim a number of advantages of partnering such as greater co-operation, cost savings, timely completion of projects and improved quality but there remain a number of difficulties both at a theoretical and practical level. These difficulties manifest themselves in the views expressed by some specialist contractors, whose voice is all too often overlooked.*

*A number of issues can be seen in the responses of specialist contractors to questions put to them in the quarterly survey of the National Specialist Contractors Council. These include measures of interim payment periods, tender prices, suppliers' prices, profit margins, contractual behaviour, methods of appointing specialist contractors and the time allowed to price a proposal. These measures can be compared to the state of specialist contractors' markets to reveal the underlying causes of main contractor behaviour and treatment of their subcontractors. For example, market constraints in times of economic difficulties may indeed directly affect such behaviour. If the gains and benefits of partnering were truly shared between all parties, then it is significant to note the views of specialist contractors and the fact that the difficulties they face in dealing with main contractors have not diminished over time.*

**Key words:** Specialist contractors, supply chain management, integrated project teams and partnering

### **INTRODUCTION**

Following the serious construction recession of the early nineties and before the subsequent period of sustained growth until 2008 a period of introspection within the industry brought about many changes to practice in both procurement and delivery of construction projects. Many construction partners and indeed the associated education and training sector largely embraced the concept of integrated working and project partnering as one technique with the potential to improve the behaviour and hence the performance of an industry hitherto subject to accusations of an adversarial culture and under performance.

However, rather than a deliberate attempt by firms in the construction industry to improve their behaviour, Smyth (2002) posited that the adoption of partnering was essentially a

procurement issue driven by client demand in an attempt to avoid what in relationship marketing is called switching costs – that is, the costs involved in replacing one supplier with another.

Switching costs and client loyalty levels are discussed by Smyth, who nonetheless identifies the advantage of partnering as providing market stability. Even where switching costs are low advantages are identified for partnering. For example, partnering is seen as meeting client needs more directly, helping to build up construction business and continuous client relationships. However, low switching costs may also encourage clients to take advantage of the lowest cost bid and limit the adoption of partnering.

## **SUPPLY CHAIN MANAGEMENT AND INTEGRATED PROJECT TEAMS**

A number of papers have looked at the relationship between main contractors and specialist contractors, including, for example, Winter and Preece (2002) and Van der Vaart and Van Donk (2004). While Van der Vaart and Van Donk looked at the main factors that shaped the level of integration of different supply chains or networks, Winter and Preece examined, main and specialist firms in both Germany and the UK, in an attempt to determine the nature of their relationship and the extent to which relationship marketing had extended down through the supply chain. They found that where main contractors considered that a partnering approach directly with clients was seen as improving overall business, it was never seen from the point of view of the supply chain. This relationship with suppliers was characterised by a traditional approach without any reference to the potential benefits of partnering.

Winter and Preece identified pressure on prices, lack of trust, poor communications, inadequate information and perceived poor service as impacting on the relationship between main contractors and their suppliers. Nevertheless, some main contractors had identified the advantages of dealing with the issue of main and sub contractor relations in order to improve the ‘internal market’ within the construction process.

Van der Vaart and Van Donk (2004) also considered supply chains, where cost was the main order-winner and make-to-stock production, where shared resources might be necessary to achieve a high utilization of the processes involved. They concluded that in construction a high level of integration is difficult to achieve and is not always necessary given the fact that cost is important and setting up a genuinely integrated process can be a costly exercise. In any case sufficient time may not always be available to achieve the desired ends.

Vrijhoef and Koskela (2000) also point to the shortcomings of the construction supply chain. They examined the management of the construction supply chain. Reviewing modes of project integration, they cited studies showing partial and superficial integration, (e.g. Bennett et al., 1996; Konchar and Sanvido, 1998), concluding that the benefits of design-build, for example, are minor. They found the presumption to have been that improvement of the organisational structure alone would suffice.

Instead they found the construction supply chain consisted of the following elements: a temporary, converging supply chain, producing one-off construction projects through repeated reconfiguration of project organisations. They defined the construction supply chain as one typified by instability, fragmentation, and especially by the separation between the design and construction, a typical make-to-order supply chain. However, for projects of a

particular kind, the process can be similar. The majority of the causes of waste and problems, according to Vrijhoef and Koskela, can be attributed to traditional management of the supply chain. They go on to propose a number of their own principles and methods in order to provide a solution.

## **A VIEW FROM THE SPECIALIST SECTOR**

Setting aside the findings discussed above, the National Specialist Contractors Council (NSCC), being a federation of trade associations, publishes guidelines for its members, extolling the benefits of integrated working, a form of partnering, which is claimed to include better financial performance, a specialist input to design and planning, better problem solving, a fairer share of risk, the opportunity for repeat business and better payment terms. Further, the NSCC recommends the setting up of integrated project teams (IPT) as an organisation or a single team with common goals.

In turn, the NSCC is a member of the Strategic Forum for Construction, which also publishes its own toolkit guide (see Strategic Forum for Construction, 2011) to both integrated supply chains and IPTs with the aim of improving project delivery, profitability, reduced operating costs, more sustainable outcomes, predictability of programme, price and quality.

The Strategic Forum also offers guidance on IPTs with the aim of streamlining transactions and in particular developing closer relationships with subcontractors. The case is made for an holistic approach to projects and thereby establishing the organisational desirability of collaborative working from identifying the need for the project to ensuring all the value criteria are met with due acknowledgement of the process, culture, methods and tools required.

This supply side engagement with the concepts of integration has been matched by the demand side principally through the involvement of government, which is still the largest sponsor of construction activity. Thus, the Office of Government Commerce (2007), now part of the Efficiency and Reform Group, set out a suite of procurement guides reflecting developments in construction procurement over recent years, not least building on government clients' experience of implementing the Achieving Excellence in Construction initiative.

The 2012 Construction Commitments, (Strategic Forum, 2012) recommend procurement to require ethical sourcing, best value and the early involvement of the supply chain. It also recommends an integrated project team to work together in terms of design, buildability, environmental performance and sustainable development.

Specifically, it recommends all members of the construction team should be identified and involved at an early stage, particularly during the design process, and encouraged to work collaboratively. Supply chain partners are required to demonstrate their competency, commitment to integrated working, innovation, sustainability and to a culture of trust and transparency. To ensure effective and equitable cash flow for all those involved, all contracts should also incorporate fair payment practices, such as payment periods of 30 days, no unfair withholding of retentions, project bank accounts and mechanisms to encourage defects free construction.

In the private sector changes in practice have taken place more rapidly. For example, the adoption of integrated projects was most notably addressed by the British Airports Authority (BAA), who were reported in an article in *Building* (2006) to be launching a procurement strategy for the following 10 years, a policy however quickly reversed in 2008. According to *Building* (2008), by 2008 the approach had changed to one of finding deficiencies in the supply chain and cutting them out. A reference to the successful completion of Terminal 5 Heathrow was tempered by the view that it was one of the most expensive terminals ever built, delivered on budget, but the key point to note was how high that budget was.

Major influences on the further development of integration must include the impact of debt, both public and private, downward pressure on pricing, client behaviour and of course politics. Clearly, the practice of integrated working and partnering has some way to go to match the rhetoric of its proponents.

Evidence for the implementation of supply chain management and integrated project teams can be seen in the responses of the survey of specialist contractors over time. This survey is taken from the point of view of specialist contractors. If the culture of the construction industry had been changed by the introduction of the concepts of supply chain management and integrated project teams, then it could be expected to be reflected in changes in the NSCC survey.

## **METHOD**

An important player during this period of industry review was the National Specialist Contractors Council (NSCC), which established a quarterly survey of its member firms in order to provide evidence for the Latham Report (Latham 1994) on the state of the industry. Conducted and written by an academic, the NSCC State of Trade Report has developed along with the shifting interests of member firms through the changes in the construction industry and the economic climate.

The NSCC mission is to represent the interests of trade organisations within the specialist and trade sector of the construction industry and it currently brings together the common aims of 32 specialist trade organisations, amounting to some 7,000 firms, within the construction industry. NSCC member organisations cover a wide spectrum of the sector and include for example:

- Association of Interior Specialists (AIS)
- Contract Flooring Association (CFA)
- Council for Aluminium in Building (CAB)
- Federation of Piling Specialists (FPS)
- Glass & Glazing Federation (GGF)
- Mastic Asphalt Council (MAC)
- National Access and Scaffolding Confederation (NASC)
- National Federation of Roofing Contractors (NFRC)
- Painting and Decorating Association (PDA)
- The Tile Association (TTA)

The NSCC is an authoritative voice of specialist contractors in the UK and is therefore used by a number of leading organisations including:

- Construction Skills Certification Scheme (CSCS)
- ConstructionSkills
- Cross-Industry Construction Apprenticeship Task Force (CCATF)
- Health and Safety Executive (HSE)
- The Joint Contracts Tribunal (JCT)
- Safety Schemes in Procurement (SSIP) Forum
- Strategic Forum for Construction.

Since the first quarter of 2010, NSCC has contributed its survey findings to the industry wide quarterly State of Trade report compiled by the Construction Products Association (CPA) thus ensuring that the specialist sector viewpoint is represented, not least at the government hosted Consultative Committee of Construction Industry Statistics (CCCIS).

The information gathered by the survey has been used extensively, for Ministerial briefings and to assist in campaigns to promote the interests of members. The most recent campaigns have involved briefings to government on retentions, the Better Payments Campaign and Supply Chain Integration for Specialists. Supply Chain Integration is the subject of this paper.

The survey is conducted on-line and respondents are invited to complete a questionnaire covering the following main areas of activity: enquiries, orders, labour availability and change, labour, capacity and workload, planning, price and margin analysis, procurement, payment periods, retentions, contract abuse, and adjudication. Members are also invited to comment freely on the issues most affecting their businesses.

The questionnaires are sent to approximately 700 firms, all member firms of NSCC affiliated trade associations, covering the whole range of specialist activities. The average response rate is approximately 15%. This is a higher response rate than was achieved using the original postal survey, which had been conducted quarterly until 2007.

In line with similar surveys the responses indicate, where appropriate, the actual percentage of respondents reporting increases or decreases in particular variables. A 'balance' indicator gives the best single measure of trend. The balance is the difference between the percentage of respondents answering 'more' or 'increase' of a variable less the percentage answering 'less' or 'decrease'. For example, if 30% of respondents report 'increased orders', 20% 'no change' and 50% 'reduced orders', the balance is -20%. Generally, a positive balance implies that a variable has increased and a negative balance implies a decrease. Balances close to zero imply no significant change has occurred.

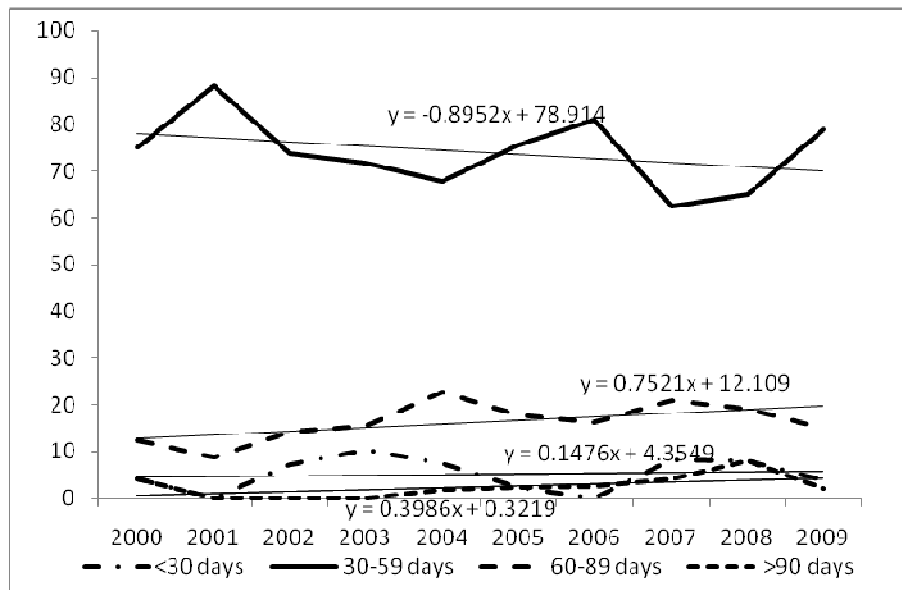
The findings below are largely taken from the quarterly survey of the NSCC State of Trade Report 2009 Quarter 4, but they are also derived from all the surveys conducted over the previous 10 complete years from the first quarter of 2000. Using the third quarter data of the NSCC survey, a trend analysis based on a linear regression was applied to the data.

## **FINDINGS**

Firstly, one of the key drivers in establishing the NSCC trade survey concerned payment regimes between main contractors and specialists. This refers to excessive delays in paying specialist suppliers by main contractors, even when there are no reasonable causes for the delay. It continues to remain a major issue and has been responsible for the Fair Payments Campaign run by NSCC, which resulted in fair payments being adopted government

procurement policy. As recently as 2009Q4 fewer than 5% of specialists reported being paid within 30 days. Little noticeable change has taken place since 2000, with the rate of increase in the percentage of firms reporting prompt payment between 2000 and 2009 at 0.148 per cent per annum, according to the trend analysis shown in Figure 1, which shows the period of time specialist contractors reported they waited for interim payments. In contrast the percentage of firms reporting payments of between 30 and 59 days declined at approximately 0.895 per cent per annum. Although the percentage of specialist firms reporting payments from main contractors were taking longer than 90 days to pay appears to have declined in 2008 and 2009, if anything the time taken by main contractors to pay invoices increased in 2007 and 2008 during the worst of the financial crisis.

Both those firms waiting 60 to 89 days and those waiting more than 90 days to be paid grew at 0.752 and 0.399 per cent per annum respectively, although their actual numbers were small. These figures do not indicate the size of the outstanding payments but they do show that for the bulk of payments, firms were waiting longer than 30 days for payment, a period in breach of most specialist firms' terms and agreements. It is possible that the decline in the number of specialist contractors waiting 30 to 60 days in the decade was due to the need to re-engage with supplier firms during a period of steady employment. The reduction in the interest rates also reduced the incentive to delay payments.



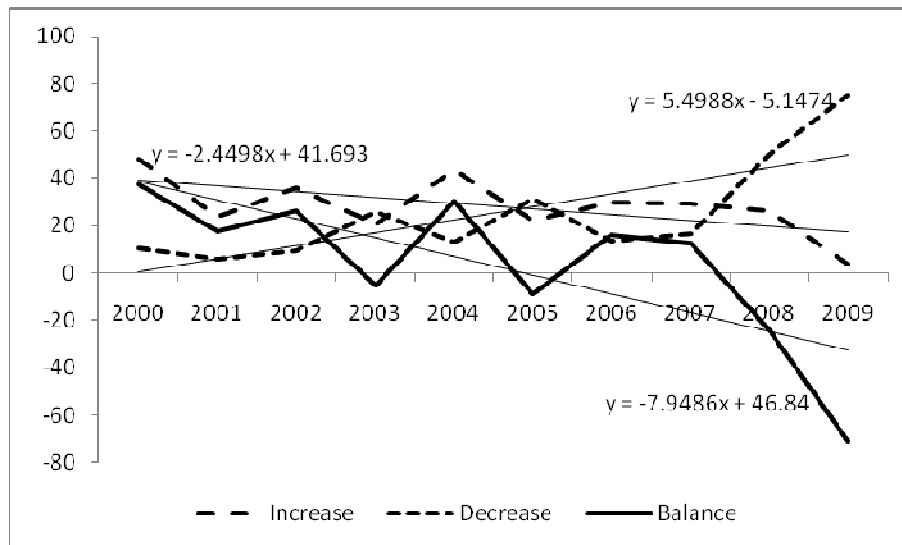
Source: NSCC State of Trade Survey: Q3 2001 – 2009

Note: Figures do not round to 100 as some respondents did not complete this question

**Figure 1** *Interim Payments Period: average time for payment in 3<sup>rd</sup> Qtr 2000 - 2009*

The commercial pressures prevailing on this sector are emphasised by the percentage of specialist contractors reporting tender price increases. This data is given in Figure 2, which gives the percentage of firms reporting rising and falling tender prices. The balance shows the difference in the percentage reporting increases and decreases. By the 4<sup>th</sup> quarter of 2009, there was a large negative balance of 69%, signifying far more firms reporting downward pressure on tender prices, a characteristic of a buyers' market. As the buyers in this particular market are main contractors, this reveals their relatively strong bargaining position vis-à-vis their suppliers. The weak increases in tender prices had been offset in the deepest part of the

recession by reduced suppliers' prices, but there has now been a return to some supply side inflation. Increases in suppliers' prices placed pressure on margins, which continued to fall but respondents anticipated that the sharpest falls had passed.



Source: NSCC State of Trade Survey: Q3 2001 – 2009

Data is taken from the 3<sup>rd</sup> Qtr survey each year.

Note: Figures do not round to 100 as some respondents did not complete this question

**Figure 2** *Specialist contractors' tender prices, 2000 - 2009*

Those reporting a decrease in tender prices grew by 5.5 per cent per annum between 2000 and 2009 but this downward pressure on specialist contractors was mainly due to the impact of the financial crisis of 2007. From 2000 to 2007 the number of firms reporting declining tender prices only grew by 1.6 per cent per annum. This implies that the pressure on specialist contractors to reduce their tender prices existed even before the financial downturn. The converse of this is given by the decline in the percentage of firms reporting increasing tender prices. The annual rate of decline of firms, given by the trend line in Figure 2 was 2.45 per cent per annum. By 2009 only 4 per cent of firms reported that they were still submitting higher tender prices than in the previous year. These figures are reflected in the balance, which shows the summary of the relationship between those firms reporting higher and lower tender prices. The balance shows a decline of almost 8 per cent per annum, leading to a prevailing pessimism in construction markets.

This pessimism is further shown by specialist contractors, who cite late payment, weak cash flows, valuation disputes and a strong disregard for retention. Late payment, bid peddling and Dutch auctions have the most significant effects on specialist contractors' businesses. Further evidence from the 2009Q4 survey indicated that 84% of respondents still had monies withheld against them in retentions with an average of £125,082 per respondent and of that amount an average of £38,522 per respondent (27% of retention monies withheld) was overdue for release.

Although the UK Government's announcement that it had made fair payment a contractual requirement on public sector works from 1 April 2010, this measure has yet to be seen as having an effect on contract behaviour.

A significant challenge to the notion of integrated working within the sector is evidenced by only 6% of specialists reporting that they were chosen by nomination. When selected to make a proposal 50% of specialists are given less than 10 days to submit a bid and 18% of specialists did not even receive their contract documentation until after they have started the work. Generally it would appear that most specialists have less than 10 days to prepare and price a proposal.

Finally, when asked to identify the major issues affecting their business, specialist contractors' comments included the following:-

- Start dates being moved (by months in some cases)
- Main contractors were taking longer to pay than agreed. As a consequence a cash flow problem emerged.
- Obtaining credit cover on main contractors through credit insurance.
- Poor credit rating of main contractors and onerous and complicated payment terms.
- Extended payment terms imposed even when the contract is government funded.
- Difficulty in getting retentions paid.

## **DISCUSSION**

One would have expected clear changes to have emerged in the attitude of specialist contractors if changes in supply chain management and IPT's had been successfully adopted. Improvements in the attitudes and behaviour of main contractors towards specialist contractors would have been reflected in the quarterly survey. However, none of these are yet apparent by the time of the fourth quarterly survey.

This is therefore indicative of a failure to introduce supply chain management by gaining the collaborative working environment that might have been hoped for. As far as the NSCC survey is concerned there is little or no evidence to support the claim that supply chain management has improved the degree of collaborative working.

The difficulties facing specialist firms is caused by the fact that according to the terms of their contracts, much of their work is carried out prior to payment. It therefore follows that their bargaining power, vis-à-vis main contractors, is severely weakened as they are then not in a position to impose costs on the project or the main contractor. If they cannot delay completion of a project, there are few other practical sanctions that can be used by subcontractors other than seeking adjudication, arbitration or litigation.

A large question remains. To what extent does the data reported here reflect basic economic realities and conflicts embodied in the relationships between main contractors and their suppliers, the specialist subcontractors? If the data given here reflects basic conflicts found in markets, then they represent universal conditions and similar surveys in other countries would produce largely similar results. We hold that the findings here are probably generalisable and that they therefore have relevance and implications universally.



As long as construction relies on markets to provide specialist skills and services, there will be conflicts between main and subcontractors. Only when firms themselves become fully integrated would common corporate identity begin to provide opportunities for truly collaborative working practices. Even then interdepartmental conflicts and rivalries arise within the same organisation and there can never be a guarantee that construction projects or any kind of production process is necessarily carried out on a co-operative basis.

## **CONCLUDING REMARKS**

At a project level it would appear from the findings that there is still a need to train managers on the implications of supply chain management to alter the culture of confrontation and mistrust that arises on construction sites. The message needs to be communicated down to those, who actually manage the interface between main contractors and specialist contractors. The evidence from the NSCC survey does not provide support for the argument that this is happening effectively. Only once the behaviour of main contractors begins to show understanding of the difficulties faced by their specialist suppliers will the promises of management theories designed to improve the work attitudes, productivity and outcomes on construction sites be achieved.

The findings of the NSCC survey begin to show the divergence of opinions about the performance of contractors as far as specialist contractors are concerned. This calls into question the gains to the supply chain in the construction sector claimed by some of the proponents of integrated working. Further, the practice of partnering has not extended its reach throughout the sector as much as might have been expected.

One conclusion that may be drawn is that the drive to partnering has been mainly marketing exercise by contractors, not matched by practice. Instead it has allowed the strongest players in the building team to continue to take advantage of the weakest members and that the time has come to call the concept of partnering as practiced in the UK a failure.

## **REFERENCES**

- Latham, M. (1994), *Constructing the Team*, London: HMSO
- Monaghan A., (2006) 'BAA launches procurement strategy for next 10 years' *Building*, Issue 37
- National Specialist Contractors Confederation (2011)  
(<http://www.nsc.org.uk/guidance/business.html>) (Accessed 20.1.11)
- Office of Government Commerce (2007) 06 Procurement and contract strategies, Crown Copyright
- Office of Government Commerce (2007) Guide to Fair Payment Practices, Crown Copyright
- Smyth, H., (2002) "Partnering: Practical Problems and Conceptual Limits to Relationship Marketing", *International Journal for Construction Marketing*, Vol. 1, Issue 2
- Strategic Forum for Construction, (2011)  
<http://www.strategicforum.org.uk/sfctoolkit2/home/home.html> (Accessed 22 Jan 2011)
- Strategic Forum for Construction, (2012) 2012 Construction commitments,  
<http://www.strategicforum.org.uk/pdf/2012ConCom.pdf> (Accessed 22 Jan 2011)
- Stewart, D., (2008) 'BAA the economy class client?' *Building*, Issue 4

Van der Vaart and Van Donk (2004) *International Journal of Production Economics* 92 pp 21–30)

Vrijhoef, R., Koskela, L., (2000) “The four roles of supply chain management in construction” in *European Journal of Purchasing & Supply Management* **6**, Nr 3-4, pp 169-178

Winter, C., and Preece C.N., (2002) Relationship Marketing Between Specialist Subcontractors and Main Contractors - Comparing UK and German Practice, *International Journal for Construction Marketing* Vol. 2, 1