

Sub contracting and
partnering and
framework
agreements
construction essay



This course work talks about the subject of sub-contracting, partnering and framework agreements. It further proceeds to evaluate the benefits and disbenefits and assesses the consequences of a possible return to the more traditional model of contracting and sub-contracting within the industry. The work consists of introduction, case studies review, evaluation and conclusion.

Partnering can be referred to many different relationships such as single project partnering; multi project, strategic partnering between a contractor and client; the use of a contractor of the same partnering process over many projects as a key building block in total quality management and contractor-employee partnering in the pursuit of safety goals (Kneeland, 1996). The concepts of partnering are, Partnering is a simple way of avoiding disputes; A dispute in this context refers to existing unsolved problems; Partnering involves proactive step to address project problems (Murphy, et al., 1996).

Individual buildings now have to meet more complex and subtle requirements which in turn demand the use of specialist sub-contractors, as the main contractor cannot and would not hope to carry all the works involved (Rietveld, 2004). Contracting firms exist in many different shapes and forms. It is possible to discriminate between contracting firms in terms of their size as well as by the nature of their business. They range from the very small to the very large. Whatever the size of the individual firm it will fall into one of the following categories: general building; specialist trade; specialist maintenance; building and civil engineering, and civil engineering (Headley and Griffith, 1997). In 1988 standard method of measurement for construction cited about 300 work sections, which reflect massive increase in the use of specialist sub-contractors in present construction projects

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(Rietveld, 2004). The prime aim of integrating the construction teams as suggests in the Reports of Egan (1998) and Latham (1994) are to convert unnecessary costs into lower price for the clients and create higher assured profits for the materials and service suppliers (Cain, 2003). Long-term of design, production and supply-side partnerships are essential to the introduction of the supply chain management tools and techniques demanded by the Egan Report. The elimination of waste in the utilization of labour and materials as prescribed by the Latham report, 1994 (Cain, 2003).

CASE STUDY REVIEW

In a project environment, production and services meet. The location of the role of the project actors and the way in which they are linked are fundamental features for project management system beginning with application of organizational structure and delegation of duties, through some of the more sophisticated analysis and decision-making (Pryke, et al., 2006).

The construction industry in UK has being accused for its wasteful, inefficiency, and ineffective execution of projects to meet clients' objectives and needs, and how it differ from manufacturing industry. The concerns normally focused on areas regarding profit margin, its client's satisfaction and disintegration of the construction teams and procurement process (Anumba, 2000). Latham report (1994) identifies that low productivity, poor value for money and unsatisfaction of the clients' objectives are elements of uniqueness, immobility, and variety causes of fragmentation in the construction industry when compared to manufacturing industries.

Comparing the construction industry to other sectors, construction is unsophisticated in its approach to the supply chain. It can learn from the experiences of manufacturing industry, where there are standardization and efficiency to meet the customers' demands (Egan, 1998). The need for UK construction companies to become more efficient is to follow the recommended management systems in Egan (1998) and Latham (1994) Reports to become more efficient and to improve productivity. The construction industry must be innovative and respond to change and new challenges before it can have potential improvement in aspects of the construction and design processes (Pryke, 2009).

Sub-contracting in its own nature encourages fragmentation (Cox and Townsend, 1998). The uncertainty of the main contractor obtaining continuous work with the need to accommodate the different features and requirements of each project brings separation of the teams. Egan (1998) and Latham (1994) recommend reformation of the construction industry through partnering, when they observe there is disintegration between design and production process. In 1922, the first Standard Method of Measurement (SMM) specified only 16 trades in the text, but in 1988, the seventh edition of SMM (SMM7) included 300 different trades which reflect massive increase in the use of specialist sub-contractors in the present construction projects. This movement in the UK reflects many socio - technical economic movement within the industry (Rietvelde, 2004).

Advancement in technology and introduction of sophisticated new materials in the supply organizations, method of production and erection sometimes, require new skills and expertise, hence the evolution of sub-contractors to

offer these services to the main contractor (March, 2009). In supply chain strategy, what to be sub-contracted and what should be done in-house need to be addressed properly. Activities that should be sub-contracted must be those which are not strategic important of the company and it cannot carry it out better than its competitors and is not anticipated that in the future it will improve its importance (March, 2009).

A framework is a general term use for agreements that set out terms and conditions for making specific purchases (Edkins, et al., 2009). Framework Agreement has been design for use in both public and private sectors. It is beneficial to construction procurement system in achieving reduction in transaction costs; long-term relationship improvement; better value and greater wealth and risk solutions. It is the principle of applying ' Rethinking Construction' in developing strategic relationship with the supply chain over a long period (Construction Excellence, 2008).

Partnering, framework agreement and supply chain management are potential form of integrating the construction team to improve productivity reduce costs and meet a target time; create value for money and satisfy the client's objectives (Pryke, 2009).

Supply chain management involves all parties which will contribute to the execution of a project from raw materials and component suppliers, design and client teams, and service providers, right from inception to commission stages (Cox and Townsend, 1998). Partnering in BAA, T5 project, contractors and suppliers worked closely in an integrated team. The benefits of the approach include the necessity to maintain one set of system record and

joint quality control system; improved working condition for workers and higher level of safety on site and it encouraged innovation (Pryke, 2009). The Framework program to partner with suppliers provided them opportunity to learn and they included incentive performance targets which challenged them to make continuous supplies for every year during the five years period of the project. In 1998 BAA recruited Tony Douglas as the group supply chain director when BAA had 26000 suppliers with 23 different processes and 17 different systems for managing the transaction, 24 different architects, 23 costs consultants, and more than 70 external project managers and 340 suppliers (Potts, et al., 2009). In 2002, BAA developed second generation of framework Agreement and achieved more accurate project costs and implemented best practices and worked with suppliers in longer-term relationship which did not exist in UK construction industry during the past decades (Brady, et al., 2006). "Lean Thinking" by Womack Jones (1996), compared the performance of automobile manufacturing companies, those who were operating under traditional method with those who resolved to the then lean production system. The finding was that Japanese Toyota plant was twice productive and three times as accurate as the US General Motors plant by adopting 'Just In Time' (JIT) system of supply, using 40% less manufacturing space and defects were three times reduced. Because of the success of JIT supplying system carried out by Toyota, which is framework agreement, other manufacturing companies follow their suit. The result demonstrates that JIT is not only about delivering of materials, but also to improve management as a whole (March, 2009).

Framework agreement encourages collaboration between all key parties and personnel involved in the program of projects to achieve economic benefits and involve contractors at early stage of the project to develop efficiency of work (McKee, 2005). Initially the agreement may be between the client and the service provider, but the service provider may enter into another framework agreement with other service providers in the supply chain to create web that interwoven the major project participants. It contains provision which determines the rights and responsibilities of all the parties involved in the project. The objectives of framework agreement may not be achieved overnight, but its implementation will improve productivity and integrate the teams in the construction industry (Potts, 2009). The light of integration and collaboration as recommended by Egan Report 'Rethinking Construction' and Latham 'Constructing the Team' is rapidly arising in the construction industry during this millennium, if maintained may set the industry abreast with manufacturing companies to achieve standard and quality of work (McKee, 2005).

BAA is the leading implementer of Egan's report (1998) and Latham (1994). BAA reduced costs by 10%, defects by 20% and cutting accidents on site by 20%. Construction time prediction rose to 20% through lean construction in T5 project (BAA, Capital Projects). Through contribution of collaboration and integration of all participating teams in partnering, BAA was able to achieve the Health and Safety Award in 2001 (Pryke, 2006).

Perth and Melbourne airports applied the supply chain strategy and linked with UK's supply chain team which corresponds with BAA's primary product categories, and were successful to complete within time and budget (Lee <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

Richard, et al. 2002). Charter Institute of Purchasing and Supply, have identified how BAA used professional purchasing team from seven different purchasing departments. 27 different purchasing processes, 11 different accountancy systems and more than 12, 000 suppliers which projected BAA to win Kelly's Award for excellence in purchasing and supply service. The development, the design and the engineering teams in AMA have recognized the importance of partnering and intended to work together to identify the business needs and focus on solution and developed them and have balance in costs, time and quality of work when they undertake a project (Construction Excellence, 2004).

BAA executed the extension of the North Terminal (NT) project successfully on schedule through teamwork and management was flexible with the responsible participants. Partnering and framework agreement was the process which made it possible for the company to work successfully in such confined environment without obstruction and destruction. It could have faced delay in cladding on the outside of the building which coincided with wettest and windiest period, but, because understanding among the teams, the procurement route was changed easily (Potts, et al., 2009).

During the past century, construction was procured through the use of separate contracts for design and production. BAA could have 2 years time overrun and 40% costs overrun if it had adopted the traditional approach of project execution, but completed on scheduled time. The T5 project was a complex which added 50% capacity to Heathrow Airport, commenced in December 2002 and completed in March 2008. Professionals were employed

to share ideas, knowledge and information with other colleagues in the other professions (Potts, et al., 2009).

The agreement signed by BAA with the suppliers was clear and was based on a cost reimbursable form of contract, profits were ring-fenced and BAA retained the risks. The core value of the agreement are team work, trust and commitment, and the team members were encouraged in order to drive out all unnecessary costs, including claims and litigation which boost productivity level (Douglas, 2005).

BAA learned from historical events of construction projects, such as British library; upgrading of the West Coast Railway Line; London Underground Jubilee Line extension; the Scottish Parliament building and the new Wembley Stadium, and was armed against the mistakes and difficulties they encountered (Potts, et al., 2009).

Slough Estates experimented supply chain management process through executing contracts in 1980s and early 1990s when building designs were becoming sophisticated and new materials and new technology were introduced. Skills from architects and specialist contractors and project management teams were required from outside. New era began when the in-house construction teams were retained to carry out the works, and the caliber of the team was improved in which the company won BCO Award for its work through partnering and framework agreement which constitute the supply change management (Pryke, 2009).

The company experiment all the procurement methods including Traditional, Management Contracting and Construction Management methods which are <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

discussed later. However the overall result was unsatisfactory, because overspending for rectification of unacceptable level of defects developing from its projects was high (Potts, et al., 2009).

In 1983, the British Property Federation produced its own procurement system to pioneer reformation in the construction industry through introduction of project management profession and consultants were perceived by majority in construction industry as over- bureaucratic and failed to embrace the industry in collaboration manner ().

Slough Estates Company failed when it first introduced the supply chain management in 1980s and early 1990s. There was no link between specialist contractors and architects or with the consulting engineers. There was no relationship between the parties except the legal binding instruction as provided for as architects' instructions (Rimmer, et al., 2009). The company observed that there is no upstream relationship between the contractors and the client during design stage, the client brief the architects and engineers about what he wants and they convert the information into drawings and specifications and transfer them to the contractor. The projects were won on competitive basis without any prior idea or negotiation, the lowest bid was selected. The contractors have no meaningful upstream relationship with the client to work with their downstream relationships with production and service suppliers and it could not allow in-house to continue (Rimmer, et al., 2009). Supply chain management can be improved if clients are willing to negotiate with the contractors and specialists at the early stage (design stage) of the project. All parties in the supply chain should be consulted during the design and decision making stages. Pryke Stephen, (2009) <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

therefore concluded that UK traditional form of procurement is a weak platform from which to add value and reduce cost through supply chain management.

Slough Estates observed that Management Contracting (MC) is similar to traditional method but the management contractor has better opportunity to influence upstream relationship with the clients, particularly at the design stage but has no financial interest in the payment of the contractors. His duty is only to concentrate on programming and planning of the project, and defining the role of each player in the construction teams. It encountered a lot of problems when it experimented MC, and shifted to Construction Management (CM), though it is better than MC, the company did not have constant flow of large projects to maintain the recruitment of large in-house management team. CM was better because it allows early involvement of the package contractors and created an opportunity for all parties to take the initiative to involve their own supply chain in the process (Pryke, 2009).

The strongest platform from which supply chain management can develop is the Design and Build form of procurement where the contractor has relationship with both upstream and downstream parties and in position to add value to work and reduce costs (reference). Contractors are brought on at the initial stage of the project and can deliberate with the architects, engineers and quantity surveyors for a potential framework agreement and partnering (Pryke, 2009). Supply chain Private Finance Initiative is structured to remove any hindrance that will prevent effective relationship among the participating parties. The contractors have full control over finance and design and facilities management expertise within their own teams. There is <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

continuous and systematic improvement and effective partnering arrangement when contractors are able to work on series of similar projects. Construction industry is now matching with the manufacturing industry in terms of supply chain management. Design and build and PFI have placed construction industry in a position where it can perform better and unnecessary cost of wastes in rectification is reduced (Pryke, 2009).

Research conducted on 300 projects by University of Reading discovered that Design and Build projects delivers better quality of work than Traditional method when the projects are complicated and involves high technology (Bennett, Pothcary and Robinson, 1996). During the innovation of Egan (1994) and Latham (1998) reports, Building Research Establishment (BRE) launched a productivity sampling for construction sites (CALIBRE), Slough Estates employed their services to assess two of its sites, and the result showed that collaboration and better construction methods produced about 55% of value producing hours which was low and the cause was from errors in designs, replacement and repetition of work, defects rectification and delays in supply of materials. Slough Estates has found that implementation of changes required information and knowledge sharing across the supply chain (Pryke , 2009).

Construction industry is now realizing the necessity to changes the current working practices and attitudes (Pearson, 1999). Organizations such as Ministry of Defense and Tesco , together with BAA, Balfour and Tarmac have developed supply chain management techniques to improve their supply base which has being practiced by other organizations (manufacturing) long time ago and increasingly improve their competitiveness global market. The <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

supply chain management in manufacturing industry involves all the activities associated with the processing from raw materials to the completion of the finished product for the client customer. Construction industry defers from manufacturing industry by lack of standardization, because it does not consists of stable group of interacting partners to deliberate on improving product quality and efficiency of production (Pryke, 2009). The impact of supply chain on construction sites activities is to reduce the cost and the duration of the activities to budget and time constraint, through establishing a reliable flow of materials and labour on sites. The application of supply chain management in the construction industry requires serious effort , which entails developing upstream integration in the design and production process and operation to link the process into a chain that would increase the opportunity to add value and reduce total cost. With conventional procurement, which is used in both public and private sectors, the majority of the risk is apportioned to the client. The public sector project team is encouraged to produce a project for the cheapest possible initial cost without regard for the long-term maintenance or running cost (Cartlidge, 2006). The report of Mott MacDonald (2002) states that the public sector procurement managers have been over optimistic and naïve in their estimates of cost and time of large and complex construction projects. This pattern of inefficiency brings the rationale of introduction of alternative form of procurement, with less risk for the public sector (Cartlidge, 2006). This harnesses the private sector expertise such as Public Private Partnership. Private sector organization performances are viewed as more efficient than sector organizations. They are more discipline by market force and competition (Cartlidge, 2006). As common as it is to most large public sector

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providers the National Health Service (NHS) has suffered from the usual problems of late delivery and cost overruns. One of the main challenges to NHS capital procurement is disintegration of the NHS client base for specific healthcare schemes. Several health trusts have responsibility for the delivery of the schemes with differing level of expertise and experience in capital procurement. The solution to the problem is the departure from the traditional NHS procurement method to a procurement known as NHS ProCure21, which is framework agreement with its materials and services suppliers (Cartlidge, 2006).

EVALUATION

Evaluation of benefits and disbenefits partnership and traditional model of contracting is carried in terms of time and costs saving, quality control, health and safety on sites, value for money and risk management.

BAA T5 project could have two years overrun and 40% costs overrun if traditional approach was followed (Keith, et al., 2009). 10 – 30% cost was saved to BAA on the budget for mechanical and electrical materials and equipment. The Buy Club was early engaged in design stage which promoted lean manufacturing and installation (Keith, et al., 2009). Early agreement on benchmark prototypes with an open book approach reveal issues before they become problems. Collaborative agreement avoids waste of resources (Standing, 2001). Culture has an impact on supply chain manage. The limiting issues are: clash of cultures; lack of trust; lack of coordination between teams; differing procedures and attitudes, and relational risk associated with self-interest focus (Elmuthi, 2001).

Partnering has works for the entire project team in the US Army Corp of Engineering; owners. Contractors and design firms all attest to the benefits. Results have exceeded their expectation over 90% of the time in 100 projects. Schedules were shortened and costs fall. Value engineering opportunities are more likely to be identified and implemented (Davy, et al., 1996). MCI Constructors places a heavy emphasis on efficient project management and on prompt identification and resolution of disputes while attempting to avoid litigation at all cost, state: " We found that the most successful way to achieve these goals is to utilize partnering" (Mitchell, et al., 1996,. 53). in the new handbook on partnering, the American Institute of Architects and the American Consulting Engineers Council note that " The benefits are clear: Projects are completed on time, within budget, to high standards, and to the satisfaction of everyone" (Davy, et al., 1996, p. 290). Traditional construction is fragmented, which is solely defined by organizational boundaries (Pryke, 2002). The management using supply chain approach, improves knowledge for academic and practice, which contributes to the management of projects in construction (Pryke, 2009). Leverage affects the flow of information and knowledge throughout the network of actors who constitute the supply chain. It also has an impact on how risk is been transferred fairly, unlike in the traditional process (Cox, 2001). The potential of supply chain is presented for long-term to develop over time and improve and in so doing provide better business solution for the clients, better project outcome for the stakeholder and higher level of profitability for the supply chain members(Pryke, 2009). The concept of supply chains and their management, helps to assemble groups of suppliers and contractors and manage them in a way that emphasizes on value and <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

cost. The groups collaborate to share information and knowledge. They manage and share risk in a manner that is equitable and transparent (Pryke, 2009). The 1994 Latham Report indicates that the level of unnecessary costs generated from inefficiency of use of labour and materials was around 30% of the initial capital cost. Involvement of the specialist contractors and suppliers in the design from outset, means abandoning all forms of traditional procurement which delay the appointment of the specialist constructors, sub-contractors and manufacturers, until the design is well advanced. The traditional forms of sequential of appointment are replaced with appointment of integrated design and construction supply chain from the inception period (Cain, 2003).

Sub-contracting in supply chain management should be revisited, because smaller companies are less likely to offer apprenticeships and who would train for the future. In selecting suppliers and sub-contractor in the supply chain many factors should be considered. The location of the project and its proximity to the supplier. The experience of the sub-contractor working in such environment and if he/she can recruit qualified people living in the area or they may be brought in for the during of the project. Accommodation in close proximity for the imported personnel who would stay on the job for long time (March, 2009).

Many case studies revealed that framework agreement is achieving better value of work year by year during the past decade. Though the process is expensive, it does not re-advertise for applying/bidding and awarding of subsequent contracts, therefore great amount of costs is saved. It is able to establish objectives and targets and monitor performance of project and <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

compare successive projects and transfer lessons from project to project (Constructing Excellence, 2005).

Partnering is a management system that is based on collaborative approach to work. It is different style of working when compared to the traditional approach which was formerly common in the construction industry. It achieves greater value for money for the client and higher profit for the companies involved, and improves quality of work and is more predictable for project completion (Bennett and Jayes, 1998). Some the attributed benefits of partnering are: Improved communication among participating parties; better working environment created; reduction of adversarial relationships; Less litigation; Fewer claims; better control over health and safety issues; Improve decision-making that helps to avoid costly claims and saves time and money (Fryer, 2004).

Prime contracting(sub-contracting) has been used effectively for high value complex facility procurement projects for many years. It was selected as the procurement model of construction and maintenance services for the defence estates in the 1997 Strategic Defence Review , when it was decided that a more effective and efficient process was required the billion pounds a that the Ministry of Defence spends on its estates (Fryer, 2004). Benefits acquired by MoD include: Easier fault reporting; continuous improvement and innovation; consistent approach across allestates in England and Wales; greater emphasis on quality control and checking as a direct result of a reduction in bureaucracy (Fryer, 2004)

CONCLUSION

The involvement of the specialists at design stage enabled BAA to eliminate time overrun and cost overrun (Pryke, 2009). There is no production line in construction, hence the difficulty of transferring of this manufacturing-orientated approach. Nevertheless, all other construction companies have to follow the footsteps of the initiators to improve value for money, meeting time constraints, meet budget and quality and lift the industry in high esteem in terms of investment. Supply chain enhances good relationship among the participating teams through integration (Egan, 1998). Despite the impact of the reports of Egan in 1998 and Latham in 1994 there are traditional barriers to reform is proving unassailable. It is recognized that the clients, especially their internal professional advisors within their procurement groups were refusing to change their traditional, sequential procurement practices (Cain, 2003).

” The inevitable conclusion of the foregoing is that the construction industry is unlikely to be able to transform itself across the board by using SCM-type technique, unless sufficient private clients are persuaded to provide the leadership such as provide by Slough Estates in the 1990s. furthermore, Government and public sector clients need to keep their nerves and let SCM-friendly process like PFI mature into the world class delivers of projects they are capable of becoming ”(Pryke, 2009 p. 159). The previous specialized knowledge that are trapped within small specialist sub-contractors and suppliers can now become available to clients and designers in a way that is not previously possible (Bresnen, et al., 2009).

From Latham (1994) and Egan (1998) there are indications of problems facing UK construction industry. The problems are fragmentation, adversarial relationships, project uniqueness, separation of design from production and competitive tendering. The use of clusters embedded within a partnered supply chain managing approach is cited as solution to the problem (Gray, (1996). It is an improvement of eliminating waste when specialist sub-contractors are brought in during design stage as it is in supply chain management (Morledge, et al., 2009). It is suggested that where there is a context in construction, involving routine risk minimization coupled with transaction cost emphasis, and this simply creates a situation where costs are cut to achieve competitive status; value added may also be reduced and continuous improvement is unlikely to flourish (Pryke, 2009). Risk comes to rest in the supply chain at the position where leverage is dominant on the part of transferring out project actor. Edkins et al., (2009) suggested that economic power is not relevant to supply chain members and that the power or leverage exercised is supply chain specific and related to the power of other firms within the supply chain. Construction needs structure that provides collaborative relationship and which will maintain the flexibility demanded by the business environment (Smyth and Pryke, 2008). Supply chain management provides means of managing the players comprising the project coalition without the need to return direct employment and management which has improved unsustainable in the British construction industry of the twentieth century (Latham, 1994). The function of supply chain observes that, network of actors linked by number of sophisticated relational linkages (Pryke, 2006). Communication network is more important to the industry, its firms and its clients in the supply chain than the size of <https://assignbuster.com/sub-contracting-and-partnering-and-framework-agreements-construction-essay/>

the firm. The distance that information or knowledge must pass to reach the actor who would handle such material affects the quality of such material on arrival and attitude of the receiver on arrival (Pryke, 2009).

More education and motivation is required to maintain partnering, framework agreement and supply chain in the construction industry. As suggested by the government sponsored committees (Egan, 1998 and Latham, 1994) reports, this is only possible way standardization. All construction team should participate in the development of partnering strategy for the project for effective result (Davy, et al., 1995). All stakeholders of a construction project should be committed to partnering. Every stakeholder's interest should be considered in creating mutual goals,