

**THE CHANGE IN ROLES OF
ARCHITECT'S AND QUANTITY SURVEYOR'S
FROM CONVENTIONAL TO PARTNERING
APPROACH**

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**Master of Science in Construction Management
(Project Management)**

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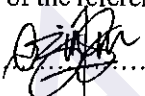
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September 2004

DECLARATION

I Azeanita Suratkon confirm that this work submitted for assessment is my own and expressed in my own words. Any use made within it of works of other authors in any form (e.g. ideas, figures, text, tables) are properly acknowledged at their point of use. A list of the references employed is included.

Signed



Date

10/09/2004



PT TUN AMINAH
PERPUSTAKAAN TUNKU TUN AMINAH

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ABSTRACT

Architects and quantity surveyors are among the principal stakeholder using partnering. Partnering is intended to improve the way projects are designed and constructed. Consequently, partnering has an impact on the design and construction process. This research project aims to investigate how the various aspects of an architect's and quantity surveyor's job have changed when comparing conventional projects with those involving a partnering agreement. This study intends to identify the practical impact of partnering on the architect's and quantity surveyor's role in the construction process and ascertain the strategy undertaken by the architect and quantity surveyor to adapt to partnering.

The means of data collection used was a postal questionnaire distributed to architects and quantity surveyors with partnering experience. Two separate sets of questionnaires were produced for each category of respondent and were designed to allow comparisons to be drawn between the architect and quantity surveyor.

Based on the literature review, partnering benefits and impacts were grouped into seven headings. The results obtained, do not support the hypotheses that partnering has a great impact on their roles and practices. They perceived that the highest severities of impacts are at major scale: procurement and contract issue for the architects, information exchange and dispute avoidance and resolution issues for the quantity surveyor. The survey revealed that an architect's role as a designer is the most frequently adopted in a partnering approach compared to lead consultant and contract administrator in a conventional approach, whereas, a quantity surveyor's role as a cost adviser remains dominant. These do not support the hypotheses that their roles adopted in a conventional approach will change radically in a partnering approach. The hypotheses that a quantity surveyor is more flexible than an architect in adapting to change imposed by a partnering approach are also not supported by the results.

The results do suggest that an architect has a preference to develop a close relationship with design-build contractors, while quantity surveyors prefer to market themselves to clients who can potentially initiate partnering arrangements as a strategy to adapt in a competitive partnering market. The role as an independent client adviser and project manager are the two roles discovered by the survey as potentially the most suitable potential to architects and quantity surveyors to take on as alternative roles in a partnering era.

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ABBREVIATIONS

A4PM	Architects for Project Management
ACA	Association of Consultant Architects (ACA)
BDB	Building own Barrier
CIB	Construction Industry Board
CII	Construction Industry Institute
CIOB	The Chartered Institute of Building
CIRIA	Construction Industry Research And Information Association
DEO	Defence Estate Organisation
ICA	Independent client Advisers
IPT	Integrated Project Team
IST	Integrated Supply team
MOD	Ministry of Defence
NAO	National Office Audit
NEDO	National Economic Development Office
OGC	Office of Government Commerce
PPC 2000	Project Partnering Contract 2000
RIBA	The Royal Institution of
RICS	The Royal Institution of Chartered Surveyors
UK	United Kingdom



CHAPTER 1

CHAPTER 1

INTRODUCTION

1.1. Point of departure and research issue

The construction industry is well known for its fragmentation of construction processes and adversarial contractual relationships, which may lead to set of problems and disputes among different parties in a project. The emergence of partnering is seen as a tool that can help eliminate or reduce the implications of such problems. Therefore, the incorporation of a partnering approach in construction draws much attention from theorists and practitioners of the construction industry.

(a) Consultant in partnering

Partnering is a structured management approach to facilitate team working across contractual boundaries (Construction Industry Board, 1997). Figure 1 illustrates the main stakeholders in a project. Consultants are part of the partnering stakeholders and interact with clients, lead contractors, suppliers and specialist contractors. Each of these stakeholders have their own responsibility and obligations (contracts) towards other parties. All the parties play important roles in order to success a partnering arrangement itself and the completion of the project as the final product. Consultants are one of the key players in any construction project. It is inevitable that they become involved at each stage and play a major roles from the early stages i.e. client brief and especially in feasibility studies and the design process towards the completion of projects.

Partnering is intended to improve the way projects are designed and constructed. Through partnering, roles of individual consultants should complement client roles in making an improvement (The Housing Forum Procurement Working Group, 2001). Partnering requires an 'integrated project team' (IPT) where consultants establish the supply team together with constructors and specialist suppliers and cooperate with the client team, working together in an integrated design and construction process. This is contrary to what they used to practice in a conventional approach that is mainly characterised by a separation of the design and construction process.

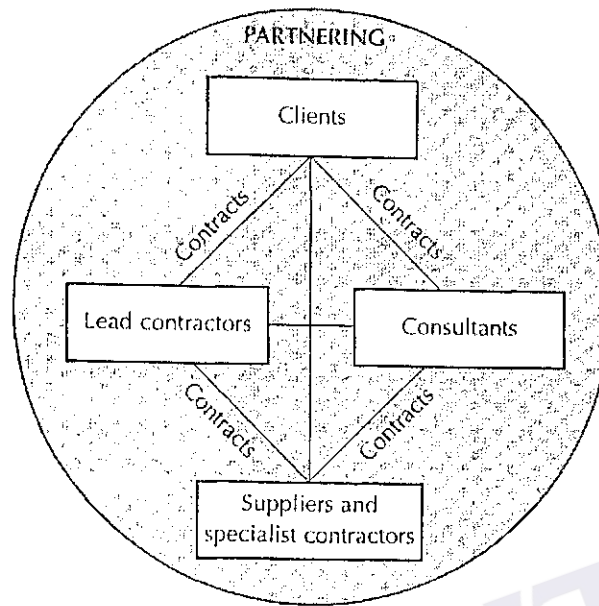


Figure 1: Partnering in practice
Source: "Partnering in the Team", Construction Industry Board (1997).

(b) Role of consultants

OGC (Office of Government Commerce, 2003) states that one of the success factors for overall project success is a clear identification of roles and responsibilities for coordinating aspects of the design and construction processes. Especially for the consultants who will get involved in both processes their roles and responsibilities must be clearly identified. In addition, the identification of roles and responsibilities of the project team in general has received a great deal of attention in partnering workshops. For instance, in the first partnering workshop, one of the tasks of the facilitator is to check that all the essential team roles are likely to develop a teamwork (Peace and Bennett, 2002) and partnering workshops at design and pre-construction stages undertaken to include an agreement on roles and responsibilities and to define accountabilities (OGC, 2003). Therefore, it is vital to investigate the consultants' role since they are involved directly in the whole lifecycle of a project.

Hellard (1995) points out one of the benefits of partnering is enhancing the consultants' role in decision-making and finding solutions to problems at the conception and design phase. Therefore, it is useful to explore how the roles of consultants change from a traditional approach project to a partnering approach project. In other words, the

impacts of a partnering approach on consultants' roles, practices or activities in a construction project should be identified.

(c) Architect and quantity surveyor

Architects and quantity surveyors are among the principle consultants using partnering. Eriksen (1999) suggests feedback based on their hands-on experiences participating in a project partnering relationship is valuable and should be included in the body of knowledge about partnering. To date there has been little hard experience collected from their community. They may relate their partnering experiences, compare results on projects that did and did not use partnering, identify what worked well and what did not and suggest improvements that should be made to partnering methods.

The role of architects and quantity surveyors are undoubtedly vital in partnering as highlighted in certain authoritative publications and reports. The RIBA's (The Royal Institution of British Architects) own "Architects and the Changing Construction Industry" published in 2000 recognised "architects with their pivotal position in the construction process, have a big contribution to make to the development of partnering." While, a target of 30% real cost reduction by the year 2000 suggested by the "Constructing the team" report is an item of major importance to the quantity surveying profession (Ashworth and Hogg, 2000). These are substantial evidences that both architects and quantity surveyors have a paramount role in making partnering a success.

The success of partnering lies heavily on the commitment of clients, contractors and consultants, but most of the partnering research are concern with the role that the clients and contractors play in partnering success. Instead, consultants, including architects, engineers, surveyors, etc. are rarely mentioned (Cheung, et. al., 2003). This supports the observation that there is a severe lack of partnering research focus on consultants especially architects and quantity surveyors even though they are prominent in the project team especially the design team. Normally, these two professionals will be first to be engaged by the client: the architect mainly to design the building and the quantity surveyor mainly to cost the design. Thus, this research will revolve around their role and practices in partnering.

role adopted will change in partnering compared with the conventional approach (non-partnered project).

- Quantity surveyors are seen to be more flexible than architects in adapting to change imposed by a partnering approach.

1.5. Scope of Research

This research will focus on architects and quantity surveyors in the UK construction industry only.

This research will consider partnering in general that may include or be applicable to both project partnering and strategic partnering.

1.6. Dissertation Structure

1.6.1 Introduction

Chapter 1 discusses the point of departure and background of the research issues. These are introduced to provide a broader understanding of the issues and justifying the relevance of the research issue. Following which the aims and objectives of the research are proposed. The scope of the research then was narrowed to the areas of study.

1.6.2 Literature review

Chapter 2 describes the concept of consultant and their role, reviews three project lifecycle frameworks to identify roles and responsibilities of architect and quantity surveyor and lastly addresses the characteristics and drawbacks of a traditional approach. This information is to provide an understanding on the roles of architects' and quantity surveyors' in the context of construction consultancy.

Chapter 3 addresses the definition and process of partnering, integrated process and project team in a partnering context. Then it highlights the impacts and benefits of partnering to roles and practices of architects and quantity surveyors, addresses how

consultants (representing architect and quantity surveyor) perceive partnering and possible strategies to adapt in a partnering era.

1.6.3 Research Methodology

Chapter 4 will look into and evaluate the different methodologies available for the research to achieve its objectives, select the appropriate method of data collection and data analysis, and explain the reason for this choice and how it relates to the research objectives.

1.6.4 Analysis of the Results

Chapter 5 will report the primary data collected, analyse and discuss the results of the survey to determine whether the research objectives and hypotheses are valid by reflecting responses from the industry.

1.6.5 Summary and Conclusion of the Research Dissertation

Finally, Chapter 6 will conclude the results of this research reflect upon the limitation and weaknesses of the research and suggest areas for further research.

1.7. Conclusion

Architects and quantity surveyors have important roles in construction partnering. Unfortunately, they are not given appropriate attention for construction partnering research compared to client and contractors. This observation provides the points of departure for the research to investigate various aspects revolve around the roles and practices of architects and quantity surveyors in partnering with the abovementioned structure.



CHAPTER 2

CHAPTER 2

ARCHITECT AND QUANTITY SURVEYOR IN THE PROJECT LIFE CYCLE

The purpose of this chapter is to provide an understanding of architects' and quantity surveyors' roles in the context of construction consultancy and to highlight certain issues regarding the traditional approach as a procurement route. This chapter begins with the concept of the consultant and their role, this will then be followed by reviewing three project lifecycle frameworks to identify the roles and responsibilities of both professionals and then to categorise them. The characteristics and drawbacks of the traditional approach will then be included to complete the chapter.

2.1 The Concept of Consultant and Role

Architects and quantity surveyors are professional consultants who are prominent participants of a project consultant team. Therefore, before discussing their roles in the project cycle, it is worthwhile to look at the general idea that revolves around the concept of 'consultant' and 'role'.

2.1.1 *Consultant Definition*

Chambers' dictionary defines a consultant as 'one who gives professional advice', while Oxford dictionary defines it as 'person who is paid to give expert advice'. From the definitions, the term 'professional' and 'expert' are the main features of a consultant. Their professionalism and expertise is recognised and expected in delivering their services. The Oxford definition explains that a certain fee must be paid to a consultant for their expert advice. This also indicates that normally they are an independent organisation, outside of the client organisation and that they are appointed to join the client organisation in a specific project.

2.1.2 Consultancy purposes

Turner (1982) as reported by Williams and Woodward (1994) produced a hierarchy of purposes of consultancy in the area of management consulting, which all are basically implemented in a construction project consultancy as well. These were:

1. providing information to a client;
2. providing a solution to a client's problem;
3. making a diagnosis, which may necessitate a redefinition of the problem;
4. making recommendations based on the diagnosis;
5. assisting with the implementation of recommended solutions;
6. building consensus and commitment around corrective actions;
7. helping clients learn how to resolve similar problems in the future;
8. permanently improving organisational effectiveness.

In a construction project, the main responsibility of a consultant team is to provide the client with appropriate project information and an evaluation, recommendations and solutions to problems that may arise. They also have a commitment to assist clients to implement all required policies, procedures, action and planning to ensure the success of a project.

2.1.3 Construction consultants

Consultants in a construction project can be divided into three main groups as categorised by the Office of Government Commerce, (OGC) (2003a) in its Procurement Guide 05.

Designer or often referred to as design consultants include architects, civil engineers, structural engineers, electrical engineers, mechanical engineers, public health engineers, urban designers, landscape designers and interior designers. Normally they are involved in preparing outline designs for feasibility studies, design exemplars and/or detailed designs.

Cost consultants mainly provide advice on whole-life costing, estimate preparation, risk quantification and cost planning, while other **specialist consultants** include a variety of experts such as specialist facility and equipment designers, environmental consultants and design consultants advising on specialist aspects. The consultants in particular that are concerned with this study are architects and quantity surveyors, known as design consultants and as cost consultants respectively.

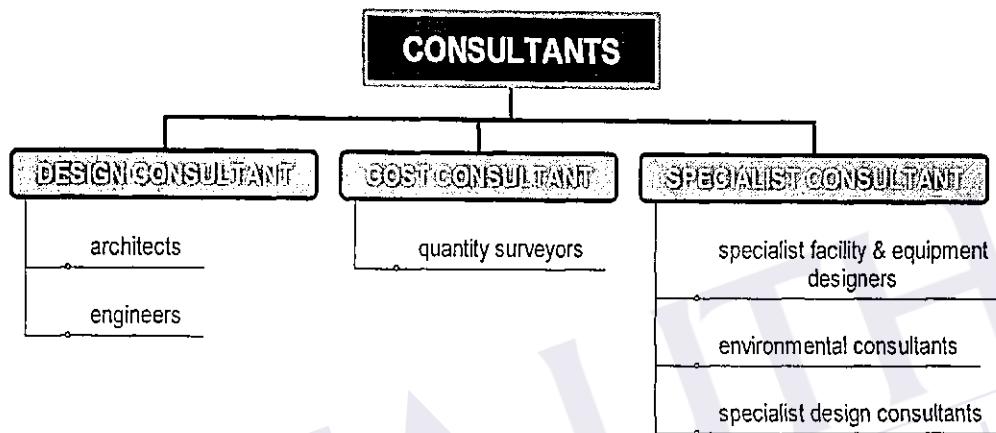


Figure 2.1: Category of consultants in construction projects
Source: Adapted from Procurement Guide 05, OGC 2003

Lambert (1998) forwards two kinds of consulting and provides a distinction between operational consultancy and advisory consultancy. The difference is that an operational consultant accompanies a whole project from start to finish, whereas an advisory consultant more or less just gives a verdict. In a construction project, architect and quantity surveyor are more than just advisory consultants, indeed they are involved from inception to completion of the project. Therefore they could be classified as operational consultants that are involved in planning the project and putting the plan into operation. Their involvements are not restricted to the office but also involve work on construction in their capacity as architect and quantity surveyor.

2.1.4 Concept of Roles

Kast and Rosenweig (1974) as cited by Williams and Woodward (1994) define the concept of role as relating to the activities of an individual in a particular position. It describes the behaviour he/she is expected to exhibit when occupying a given position

in the societal or organisational system. As further noted by Williams and Woodward (1994), the term 'role' has at least three meanings:

- (i) In the occupational context it is used to refer to a generally recognised occupational category, e.g. a managerial role, a doctor's role, a consultant's role. They are expected to behave in certain characteristic ways that may be expressed as stereotypes of individuals filling these roles. Stereotype labels are often used to describe particular roles, or types, or styles of intervention used by consultants.
- (ii) In the social psychology theory context it is used to analyse individual and group behaviour (Katz and Kahn, 1978, cited by Williams and Woodward, 1994). Thus consultants fulfil roles according to the expectations that they think the client has of them, their superior has of them, and their subordinates have of them on so on. 'Role' in this context is being used in a technical and theoretical sense to gain an understanding of the behaviours of two or more people interacting with each other.
- (iii) The term may be used interchangeably with function. Demands on the consultant have to be met if the assignment is to be successfully completed. These demands may be expressed in terms of functions to be met or roles to be taken. It is in this sense that we are trying to identify the roles (functions) that consultants may be required to fulfil in the course of an assignment.

By looking at the aforementioned concepts of roles, the first and third interpretations are reflected in the concept of roles played by architects and quantity surveyors as recognised professionals in the construction industry.

In particular in a construction context, Jang and Lee (1998), point out that 'expert', 'manager', 'researcher', 'counselor' and 'politician' are the competencies of ideal consultants (Table 2.1). These competencies can be considered as roles that consultants should undertake. Ideally an individual consultant such as an architect and quantity surveyor should be an all-round professional having all these competencies and undertake the appropriate role in their working relationship with a client, other consultants, contractors and project stakeholders.

Competences of Consultants	Description
Expert	<ul style="list-style-type: none"> • Provider of skills and knowledge • Be able to speak with appropriate expertise in their specialise area
Manager	<ul style="list-style-type: none"> • Have a special skills to manage or control the assigned project
Researcher	<ul style="list-style-type: none"> • Obtain, analyse and interpret objective data in a scientific manner.
Counselor	<ul style="list-style-type: none"> • Assists client in learning & imparting knowledge through formal methods
Politician	<ul style="list-style-type: none"> • Understanding the sources of power in social systems • Gaining the support of these who have the power & influence to facilitate or inhibit change.

Table 2.1: The competences of consultant
Source: Adapted from Jang and Lee (1998)

2.2 Project Lifecycle

This section discusses the role of the architects and quantity surveyors in the project lifecycle. There are three recognised project lifecycles to be reviewed in explaining their roles:

- a. RIBA Plan of Work
- b. OGC Project Procurement Lifecycle
- c. Project Management Framework

2.2.1 RIBA Plan of Work

RIBA Plan of Work as a framework to evaluate the architect's role at each stage of the construction process. In order to codify these managerial roles of architects, the RIBA published their Plan of Work in 1963 with a revised edition (Murray and Langford, 2004).

The 'RIBA Plan of Work' is an introductory guide for architects, showing the various stages of a project, from inception through to user feedback. Nowadays, it has become recognised throughout the construction industry and is widely used in a variety of ways,

to assist in the management of projects and as a basis for office procedures (RIBA, 2000a).

It is obvious from the outline of the Plan of Work (Table 2.2) that pre-construction period especially design stages (stage C – E) are given more definition than the construction phase. Thus, it may indicate that the architects' involvement in the design stages is greater than in the construction phase.

This framework is comprehensive as it provides an explanation on an architect's roles as lead consultant or as designer and designer leader at every stage. Brief explanations on client and consultant team; quantity surveyor, structural engineer, services engineer and planning supervisor is provided, intended to assist architects to understand and be aware of other parties' roles at every stage of a project.

Table 2.3 shows the responsibilities of architects and quantity surveyors from feasibility to feedback stage extracted from the RIBA Plan of Work and Architect's Job Book.

REFERENCES

1. Adams, G.R. and Schvaneveldt, J.D (1991) *Understanding Research Methods*, 2nd ed., Longman: London.
2. Ashworth, A and Hogg, K (2000) *Added value in design and construction*. England: Pearson Education Limited.
3. Barlow, J, Cohen, M, Jashapara, A and Simpson, Y (1997) *Towards positive partnering – revealing the realities in the construction industry*. University of Bristol: The Policy Press.
4. Bayramoglu, S., (2001), *Partnering in Construction: Improvement through Integration and Collaboration, Leadership and Management in Engineering*, 1(3), 39-43.
5. Bennett, J and Jayes, S (1995) *Trusting the team – the best practice guide to partnering in construction*. The University of Reading: Center for Strategic Studies in Construction.
6. Black, C, Akintoye, A and Fitzgerald, E (2000) *An analysis of success factors and benefits of partnering in construction*, International Journal of Project Management, Vol. 18, pp. 423-434.
7. Bradburn, J.H. (1995) *Can Architects Return to the construction site via partnering?* In: Godfrey, K.A. (ed.) *Partnering in design and construction*. United States: McGraw-Hill.
8. Broome, J (2002) *Procurement Routes for Partnering: a practical guide*. London: Thomas Telford.

References

9. Chan, A.P.C., Chan, D.W.M and Ho, K.S.K. (2003), Partnering in Construction: Critical study of problems for implementation, *Journal of Management in Engineering*, pp. 126-135.
10. Chappell, D and Willis, A, *The Architect in Practice*, 8th edn., Blackwell Publishing, Oxford (2000).
11. Cheng, E.W.L. and Li, H (2002) Construction partnering process and associated critical success factors: quantitative investigation. *Journal of Management in Engineering*, pp. 194- 201.
12. Cheng, E.W.L., Li, H and Love, P.E.D. (2000) Elemental of critical success factors for construction partnering. *Journal of Management in Engineering*, pp. 84 – 91.
13. Cheung, S.O., Thomas S.T. Ng, Wong, S.P., Henry C.H. Suen, (2003), Behavioural aspects in construction partnering, *International Journal of Project Management* 21 (2003) 333-343.
14. CIOB (2002) *Code of practice for project management for construction and development*, 3rd edn. Oxford: Balckwell Publishing.
15. CIRIA (1995), *Planning to Build? A Practical Introduction to the Construction Process*, London: CIRIA.
16. Comptroller and Auditor General (2001), *Modernising Construction*, London: National Office Audit.
17. Construction Industry Board (1997) *Partnering in the Team*, London: Thomas Telford.
18. Construction Industry Institute (1991) *In search of partnering excellence*. Austin, Texas: Partnering Task Force Special Publication.

References

19. Construction Industry Institute (CII), (1991), In search of partnering excellence." Publication No. 17-1, Rep. CII, Austin Texas.
20. Construction Industry Research and Information Association, CIRIA (2000), The handbook of supply chain management: The Essentials Building Down Barriers, London: CIRIA.
21. Conway, H. and Roenisch, R., Understanding architecture, Routledge (1997)
22. Critchlow, J (1998) Making Partnering Work in the Construction Industry. Oxford: Chandos Publishing Ltd.
23. Crowley, L.G. and Karim, M.A. (1995) Conceptual model of partnering, Journal of Management in Engineering, 11(5) pp. 33-39.
24. Davy, K.V. (1995) Can partnering transform design practice? In: Godfrey, K.A. (ed.) Partnering in design and construction. United States: McGraw-Hill.
25. Denscombe, M (1998), The Good Research Guide for Small-scale social research projects, 2nd edn., Buckingham: Open University Press.
26. Dimitrijevic, B (2004) Translating the brief into a design. In: Murray, M and Langford, D (eds.) *Architect's Handbook of Construction Project Management*. London: RIBA Enterprise Ltd.
27. Easterby-Smith, M, Thorpe, R, Lowe, A (2002) Management Research, an introduction, 2nd ed. London: SAGE Publications.
28. Eriksen, D (1999) Partnering: Are Cooperative Relations Improving the System? *AIA Construction Management Design Build*, Report Number 6.
29. Fellows, R and Liu, A (1997) Research methods for construction. Blackwell Science.

References

30. Gordon, I.D. (2002) Managing value, part 2: partnering. In: Cartlidge, D (ed.), *New Aspects of Quantity Surveying Practice: A text for all construction professionals*, London: Butterworth-Heinemann.
31. Greenwood, D and Walker, P (2004) Procurement, contracts and conditions of engagement. In: Murray, M and Langford, D (eds.) *Architect's Handbook of Construction Project Management*. London: RIBA Enterprise Ltd.
32. Gunning, J and Harkin, F (2004) Building a project organisation. In: Murray, M and Langford, D (eds.) *Architect's Handbook of Construction Project Management*. London: RIBA Enterprise Ltd.
33. Hakim, C (1987), *Research design: strategies and choices in the Design of Social Research*. London and New York: Routledge.
34. Hellard, R.B., (1995), *Project Partnering: Principle and Practice*, London: Thomas Telford.
35. Hellard, R.B., (1995), *Project Partnering: Principle and Practice*. London: Thomas Telford.
36. Hill, R.M. *Integrating the supply chain: a guide for clients and their consultants*. East Kilbride: BRE.
37. Jang, Y and Lee, J (1998) Factors influencing the success of management consulting projects. *International Journal of Project Management*, 18(2), pp. 67-72.
38. Lambert, T (1998) *High value consulting: Managing and maximising external and internal consultants*. London: Nicholas Brealey Publishing.
39. Latham, M., 1994, *Constructing The Team*, HMSO, UK.

References

40. Locke, F L, Silverman, S J and Spirduso, W W (1998) Reading and understanding research. California: Sage Publications.
41. Loosemore, M, Cox, P, Graus, P (2004) *In: Murray, M and Langford, D (eds.) Architect's Handbook of Construction Project Management*. London: RIBA Enterprise Ltd.
42. Martinez, V (2003) Understanding value creation: the value matrix and the value cube, Unpublished PhD Thesis, Centre for Strategic Manufacturing, University of Strathclyde.
43. Morton, R and Jaggar, D (1995) Design and the economics of building. London: E & FN Spon.
44. Murray, M and Langford, D (2004) The future role of architects in the building process. *In: Murray, M and Langford, D (eds.) Architect's Handbook of Construction Project Management*. London: RIBA Enterprise Ltd.
45. Murray, M., Langford, D., Hardcastle, C. and Tookey, J (1999) Organisational Design.
46. Naoum, S G (1998) Dissertation Research and Writing for Construction Students, Butterworth-Heinemann,
47. National Audit Office, NAO (2001) Modernising Construction: Report by the Comptroller and Auditor General HC 87 Session 2000-2001.
48. NEDO (1991) Partnering: contracting without conflict. London: National Economic Development Office.
49. Newton, S (1999) An assessment of the need for formal guidelines for partnering in the UK construction industry. Unpublished MSc dissertation, Heriot-Watt University.

References

50. Office of Government Commerce (2003a) *Achieving Excellence in Construction, Procurement Guide 05: The Integrated Project Team : teamworking and partnering*, London: OGC.
51. Office of Government Commerce (2003b) *Achieving Excellence in Construction, Procurement Guide 03: Project procurement lifecycle: the integrated process*, London: OGC.
52. Pachner, E (1992) *Handbook of Architectural Contract Administration*. United States: John Wiley & Sons Inc.
53. Peace, S., Bennett, J. (200?) *How To Use A Partnering Approach For A Construction Project: A Client Guide*. Berkshire: The Chartered Institute of Building.
54. Pitzrick, J (1995) *The future of partnering*. In: Godfrey, K.A. (ed.) *Partnering in design and construction*. United States: McGraw-Hill.
55. Pokora, J. and Hastings, Colin (1995), *Building Partnerships: teamworking and alliances in the construction industry*, Construction Paper No. 54, CIOB.
56. Ramus, JW (1989) *Contract Practice for Quantity Surveyors*, 2nd edn., Oxford: Heinemann Newnes.
57. RCF (1995) *Trusting the team: the best guide to partnering in construction*, Reading: Center for strategic studies in construction
58. RIBA (2000a) *The Architect's Plan of Work*. London: RIBA Publication.
59. RIBA (2000b) *Architect's Job Book*, 7th ed. London: RIBA Publication.
60. RIBA (2000c) *Architects and the change construction industry*. Supplement to RIBA Journal, July, 2000.

References

61. RIBA (2001), *Architect's Handbook of Practice Management*, 7th edn.. London: RIBA Publications.
62. RIBA (2004) *Standard form of agreement for the appointment of an architect (SFA/99)* updated April 2004. London: RIBA Enterprises Ltd.
63. RICS (2003a) *Quantity surveying the right career for you?* RICS Construction Faculty.
64. RICS (2003b) *Surveyor in Construction?* RICS Construction Faculty.
65. Roe, S and Jenkins, J (2003) *Partnering and alliancing in construction projects*. London: Sweet & Maxwell.
66. Rowlinson, S (2004) *Procurement systems*. In: Murray, M and Langford, D (eds.) *Architect's Handbook of Construction Project Management*. London: RIBA Enterprise Ltd.
67. Rubin, A and Babbie, E (1997), *Research Method for Social Works* (3rd 3d.) Pacific Grove, CA: Brooks/Cole.
68. Schutzgel, H.J. and Unruh, V.P (1996) *Successful Partnering*. United States: John Wiley & Sons, Inc.
69. Swanson, R A and Holton III, E F (1997) *Human Resource Development Research Handbook*. San Francisco: Berret-Koehler Publishers.
70. The Housing Forum Procurement Working Group (2001), *Rethinking Construction: Procurement through Partnering: 20 Frequently Asked Questions*.
71. Uher, T (1994) *Partnering in construction*, Sydney: The University of New South Wales.
72. Wayne, T.R. (1994) *Partnering for success*. United States: ASCE Press.

References

73. William, A. P. O. and Woodward, S (1994) *The competitive consultant*. London: Macmillan Press Ltd.
74. Yin, R. (1994) *Case study research – design and methods*. Sage Publications.

