

Built Environment Journal

Faculty of Architecture, Planning and Surveying

Volume 13 No. 1

Jan 2016

ISSN 1675-5022

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BUILT ENVIRONMENT JOURNAL (BEJ)

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Built Environment Journal is jointly published by Faculty of Architecture, Planning and Surveying and UiTM Press, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia.

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BENEFITS AND BARRIERS OF PARTNERING TO QUANTITY SURVEYING FIRMS

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ABSTRACT

This paper is to identify the implementation of partnering, its effects and possible strategies to be employed from the point of view of quantity surveyors. Both quantitative and qualitative research approaches were adopted to obtain relevant information to meet the objectives of the research. Two hundred and fifty (250) sets of questionnaires were distributed to registered quantity surveyors in the Klang Valley, Malaysia and forty (40) of them were returned and analysed. Subsequently, interviews were carried out with ten (10) experienced quantity surveyors to gather detailed information regarding their experience on partnering work. It was found that most of the quantity surveyors feel that the partnering are suitable to be implemented by quantity surveying firms and partnering should be promoted among the quantity surveyors to ensure the sustainable growth of the profession in the Malaysian construction industry

Keywords: Partnering, Quantity surveyors, Malaysia

INTRODUCTION

Since the publication of the Latham report, “Constructing the Team” (Cahill and Puybaraud, 2003), partnering has been increasingly mooted as the way forward and an annex to various methods to construction procurement. Partnering enables the industry to understand more clearly its clients’ needs and objectives which includes improved efficiency and cost-effectiveness, increased innovation opportunities and the continuous improvement of quality products and services.

The construction industry involves several parties working together to achieve a common goal. These parties could be identified as the clients, contractors, consultants and suppliers whom individually has different organizational goals and objectives. As construction projects are subjected to competitive high-risk business, conflicts are normal among the project team members. In addressing this, partnering has since been perceived as a noble initiative in construction procurement given its ability to create good and balance relationship among the

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parties. In this instance, Hamimah et al. (2012) posit that the Malaysian construction industry will need to respond to partnering in order to create harmonious and balance work environment.

Construction partnering in Malaysia is increasingly popular both in multinational construction firms and local governments (Azlan Shah et al., 2010, Hamimah et al., 2011) due to various benefits achieved from it. According to Hamimah and Morledge (2003) partnering in the local context is carried out to improve the relationship between participants involved in the project. Ideally, parties are expected to perform together as an ideal team members in order to achieve the same project goals (Hamimah et al., 2012). Hence, the practice of partnering in construction projects is envisaged to improve the overall project performance (Will and Malik, 2007).

The European Construction Institute (2003) suggests two forms of construction partnering: (1) Project specific partnering which is short term, and (2) Strategic partnering which is of longer term. The form of partnering recommended for adoption by Quantity surveying firms is project specific partnering. The purpose is to facilitate a project by achieving better working environment, enhancing teamwork and communication. For partnering to bear its benefit, it is important for the parties to walk their chartered commitment. This as partnering involves workshops, meetings and problem solving session which would consume considerable time and expenses.

Despite the prominent progress of research in various aspects of partnering, there seems to be limited study available on partnering among the Quantity surveying firms in Malaysia. This has prompted a study to be conducted with an aim to gather hard evidences by way of perceived benefits and barriers to partnering which would be beneficial in proliferating the initiative to the profession. In order to achieve the overarching aim, two objectives were pursued: (1) to determine the benefits of partnering to Quantity surveying firms, and (2) to determine the barriers to partnering in Quantity surveying firms. The fulfilment of the objectives has enabled substantial information to be gathered which helped to add research data to the theories in partnering.

This paper is based on the partial findings of an undergraduate research project that studied on the applicability of partnering to quantity surveying firms in Malaysia. Although the findings reported here do not match the depth and breadth of the research that has been carried out, it nevertheless shed an indication on the future of partnering especially its perceived benefits and barriers to the quantity surveying firms. The paper is structured to firstly present the literature review. This was then followed by brief explanation on the methodology used and data analysis. Next, the outcome from the semi-structured interviews conducted to validate the findings was presented. Subsequently, the paper ends by emphasising on the significant insights learned from the study.

LITERATURE REVIEW

Partnering is a set of strategic actions that deliver marked improvements in construction performance (Bennet and Jayes, 1995). It is driven by a clear understanding of mutual objectives and co-operative decision-making by multiple firms all focused on using feedback to continuously improve their joint performance. In a partnering arrangement, the fundamental components are formalized mutual objectives, agreed problem resolution methods and an active search for continuous measurable improvements. The ultimate goal of partnering should be to achieve a mutually beneficial situation for all parties in a project (Zuo et al., 2013).

Matthews et al. (2000) had stressed that partnering relationship is essentially built on the elements of trust, dedication to common goals and an understanding of each other's individual expectations and values. Gottlieb and Haugbølle (2013) add that trust allows teams to focus on interests rather than on personalities or positions thus promotes openness and encourages people to put their cards on the table. The element of trust further allow teams to commit themselves entirely to the project while continuously trying to understand each other's point of view and differences. Botha and Waldt (2010) opined that this situation was develop out of

reliability and integrity felt by the team. Without these crucial elements, teams lack the basis for open, mutual learning, communication and possibly real integration (Matthews et al., 2000).

According to Tennyson (2003), partnering workshop is one of the important features in partnering. Workshops are organized to establish a platform for exchanging information in a construction network. The gathering of information in the partnering workshops includes skills, comments, ideas, data, facts and knowledge. The objective of the workshop is to address key issues as well as discussing possible solutions to the issues (Bennet and Jayes, 1995, Will and Malik, 2007). Essentially, the goals of such workshop are to define and look into:

- i. Awareness raising, where appropriate;
- ii. Mutual objectives;
- iii. Performance measurement frameworks;
- iv. Roles and responsibilities;
- v. Tools and processes.
- vi. Greater certainty of the outcome in cost and time;
- vii. Reduced wastage;
- viii. Improving communications;
- ix. Improving safety;
- x. Reduced costs associated with disputes; and
- xi. Potential for continuous improvement.

Partnering aims at empowering problem-solving at the lowest possible level and earliest possible time and over the shortest possible period (Lee and Shin, 2013). If the team members can come to agreement, they do not need help from upper management. But, if the problem is not resolved in a timely manner at one level of management, the issue then could be escalated according to a pre-arranged formula. Thus, leadership involvement in the partnering process is critical. The leaders must not only agree to partnering but to drive it in accordance to the pre-arranged formula as early as possible (Steven, 2004).

Azlan Shah et al. (2010) had observed that partnering in construction is perhaps the most innovative development to date in construction. The authors stated that partnering had managed to reduce construction conflicts by teams that are sharing common objectives and goal. To this, Awodele and Ogunsemi (2010) pointed that common objectives sustained during the project period may result towards a reasonable profit. This is supported by Hamimah et al. (2008); Hamimah et al. (2011) and Hamimah and Morledge (2003) who found that parties involved in a construction project have a financial benefit in situation where the project is completed on time and there were less variation orders. Hence, this reflects that the success of partnering relies on the systematic approach to problem resolution.

METHODOLOGY

In the context of this study, the use of a questionnaire survey remains the most viable approach to obtain quantitative data based on the limited time frame, budget and manpower (Babbie, 2011, Yong and Mustaffa, 2013). To this, questions were formulated from prior understanding of the literature and was subsequently deployed to fulfil the research's objectives (Sekaran and Bougie, 2010). In order to compensate the weaknesses inherent with survey method, qualitative inquiry was proposed by way of semi-structured interviews. The mixed method strategy employed has been praised for its ability to complement the strengths and shortcomings of both quantitative and qualitative methods through convergence in findings (Vaus, 2001, Wilson, 1996, Oppenheim, 1992, Fellows and Liu, 2008).

The questionnaire used for this study comprises of three sections which accords to the objectives to be achieved from the study. These are: (1) background of the respondents; (2) perceived benefits to partnering; and (3) perceived barriers to partnering. Quantitative data gathered from the survey was analysed by way of mean and calculation of standard deviation. The aim of the analysis was to reduce the data and to observe any pattern of responses from the

survey. Results gathered were then ranked and discussed before it was brought as the input for semi-structured interview sessions held with four registered quantity surveyors. The interviews were focused at understanding the survey results and identifying issues concerning the implementation of partnering to quantity surveying firms.

RESPONSE RATE

A total of 138 questionnaires were distributed to quantity surveying firms with a polite request for a senior staff/associates/directors to respond. As this was an exploratory study, respondents were reached by snowballing technique hence results and discussion were considered indicative in nature (Bryman, 2008, Saunders et al., 2007). Nevertheless, the results were considered sufficient to satisfy an academic inquiry and helps to broaden the area despite the inherent limit in its generalisation (Creswell, 2003).

The survey resulted to an effective response rate of 16% or twenty two (22) responses. This was after a strenuous follow up was made. Despite the response rate was below the normal response rate of 20% to 30% as suggested by Akintoye (2000); Akintoye and Fitzgerald (2000) and Dulaimi et al. (2003), this was nonetheless acceptable following research publications by Abdul-Aziz et al. (2007) and Abdul-Aziz and Sing (2010) in *Construction Management & Economics* that report less than 20% rate of response. Yong and Mustaffa (2013) had reflected that low responses in research on Malaysian construction industry was ‘not uncommon’ and relate that to what Dulaimi et al. (2003) described as ‘fatigue’ for having to respond to surveys on regular basis.

RESPONDENT BACKGROUND

Table 1 and Table 2 show the crosstabulations between the size of companies/ construction experience and knowledge of partnering/construction experience respectively. As Table 1 shows, respondents having more than 20 years of construction experience have contributed the highest number of responses (40.9%) followed by respondents with 16 to 20 years of experience (31.8%), 11 to 15 years of experience (13.6%) while respondents with less than 10 years of experience combined contributed to 13.6%. Table 1 also shows that respondents with more than 20 years of construction experience are employed in medium and large firms while most respondents with experience less than 20 years concentrated in small firms. Separately in term of knowledge of partnering, Table 2 shows that 86.4% or 19 respondents indicate that they have a fair amount of knowledge in partnering while the remaining 13.6% specified minimum amount of knowledge in partnering. It is interesting to note from Table 2 that all nine (or 40.9%) respondents with experience of more than 20 years had indicated fair amount of knowledge in partnering followed by others in descend. The pattern in overall suggests that the survey had managed to reach experienced and knowledgeable personnel hence assured the credibility of the data collected.

Table 1: Size of companies * Construction experience Crosstabulation

Size of companies	Count	Construction experience (years)					Total
		1 - 5	6 - 10	11 - 15	16 - 20	> 20	
Small ^a	10	1	2	3	4	0	10
% within Size of companies		10.0%	20.0%	30.0%	40.0%	0.0%	100.0%
% within Construction experience		100.0%	100.0%	100.0%	57.1%	0.0%	45.5%
Medium ^a	8	0	0	0	3	5	8
% within Size of companies		0.0%	0.0%	0.0%	37.5%	62.5%	100.0%
% within Construction experience		0.0%	0.0%	0.0%	42.9%	55.6%	36.4%
Large ^a	4	0	0	0	0	4	4

	% within Size of companies	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% within Construction experience	0.0%	0.0%	0.0%	0.0%	44.4%	18.2%
Total	Count	1	2	3	7	9	22
	% within Size of companies	4.5%	9.1%	13.6%	31.8%	40.9%	100.0%
	% within Construction experience	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Notes: ^a Reflects the size of the companies where the respondents are employed. Small includes company having less than 30 employees, medium as having between 30 to 100 employees while large is having more than 100 employees.

Table 2: Knowledge of partnering * Construction experience Crosstabulation

		Construction experience (years)					Total
		1 - 5	6 - 10	11 - 15	16 - 20	> 20	
Knowledge of Fair partnering	Count	0	0	3	7	9	19
	% within Knowledge of partnering	0.0%	0.0%	15.8%	36.8%	47.4%	100.0%
	% within Construction experience	0.0%	0.0%	100.0%	100.0%	100.0%	86.4%
	Minimum Count	1	2	0	0	0	3
	% within Knowledge of partnering	33.3%	66.7%	0.0%	0.0%	0.0%	100.0%
	% within Construction experience	100.0%	100.0%	0.0%	0.0%	0.0%	13.6%
Total	Count	1	2	3	7	9	22
	% within Knowledge of partnering	4.5%	9.1%	13.6%	31.8%	40.9%	100.0%
	% within Construction experience	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

BENEFITS OF PARTNERING

The section of the questionnaire requires respondents to identify the benefits to partnering by responding on a Likert scale from ‘1’ (strongly disagree) to ‘5’ (strongly agree). The five-point rating scale was ‘1’ = strongly disagree, ‘2’ = disagree, ‘3’ = neither agree nor disagree, ‘4’ = agree and ‘5’ = strongly agree. De Vaus (2002) maintains that offering the middle position will avoid the force choice situation where respondents are forced to indicate a commitment level which they do not actually have.

Data gathered were reduced and presented by way of descriptive analyses as shown in Table 3. This follows from suggestion made by Yong and Mustaffa (2013) who recommended the analyses for data which are qualitative in nature. The analysis techniques includes the calculation of mean and standard deviation with the ultimate aim of ranking the list of benefit in concordance to the responses gathered. In addition to the analysis techniques mentioned, the Cronbach’s alpha reliability test was also carried out to determine the reliability of the survey instrument used (Cortina, 1993, Tavakol and Dennick, 2011). The result of Cronbach’s alpha is 0.956, indicating that the data collected were interrelated and the instrument used is reliable (Field, 2005).

Table 3: Benefits of partnering to quantity surveying firms

Benefits of partnering	Mean	Rank	Std. Dev.
Risk sharing	4.18	1	0.50
Quality improvement	4.09	2	0.68
Understanding of parties will be increased	3.90	3	0.29
Reduction in costs and time of project implementation	3.77	4	0.69

Increased customer satisfaction	3.73	5	0.63
Increased implementation speed	3.73	6	0.83
Operational savings	3.64	7	0.79
Enhanced facility maintenance	3.55	8	0.51
Construction projects cost savings	3.45	9	0.80
Improved return on resources	3.36	10	0.49

Source: Survey data

The top five benefits of partnering as shown in Table 3 are risk sharing (1, 4.18), quality improvement (2, 4.09), increased understanding among parties (3, 3.90), reduction in project's cost and time (4, 3.77) and an increase in customer satisfaction (5, 3.73). These are followed by speedier project implementation (6, 3.73), operational savings (7, 3.64), better prospect of facility maintenance (8, 3.55), construction cost savings (9, 3.45) and improved return on resources (10, 3.36).

BARRIERS OF PARTNERING

The section of the questionnaire requires respondents to identify the barriers of partnering. Similarly, a five points Likert scale was used which ranging from '1' (strongly disagree) to '5' (strongly agree). Data gathered were reduced and presented by way of descriptive analyses as shown in Table 4. The analysis techniques includes the calculation of mean and standard deviation with the ultimate aim of ranking the barriers in concordance to the responses gathered.

Table 4: Barriers of partnering to quantity surveying firms

Barriers of partnering	Rank	Mean	Std. Dev.
Problems with trust	1	4.09	0.81
Problems with organisational culture	2	3.86	0.71
Difficult to incorporate	3	3.55	0.59
Difficulty aligning stakeholder's objectives	4	3.55	0.86
Lack of commitment	5	3.14	0.71
Lack of flexibility	6	2.77	0.43
No failings mindset	7	1.45	0.51

Source: Survey data

As shown in Table 4, the main barrier of partnering is the problems with trust (1, 4.09) followed by organisational culture (2, 3.86), difficulty to incorporate in organisation (3, 3.55), difficulty aligning stakeholder's objectives (4, 3.55), lack of commitment (5, 3.14), lack of flexibility (6, 2.77) and a no failings mindset (7, 1.45). In overall, the outcome from the analysis suggests that it is not always easy to promote collaboration in particularly unsympathetic cultural, political or economic contexts (Tennyson, 2003).

FINDINGS FROM INTERVIEWS

In depth semi-structured interviews were carried out with four (4) registered quantity surveyors which were focused at understanding the survey results and identifying issues concerning the implementation of partnering to quantity surveying firms. It was clearly projected from the interviews that the intention of partnering is to improve the relationships among team members by organising workshops and coordination meetings. Respondents informed that although partnering workshops were carried out, the lack of formalisation of partnering agreement had caused the workshop to be carried out on an intermittent basis. Respondents also weighed on the benefit for having regular facilitator for the workshops which imperative for the objectives of the workshop to be achieved.

All respondents confirmed that partnering enables quick decisions to be made by understanding the project's problems. To this, one respondent mentioned: "We need fast decision so the head took up the issues and make quick decisions to help the designer precede design. It is not yet a failure". However, we do not acquire the benefit. Lack of full commitment among the QS and it was found that the contract is not transparent and clear enough. Some QS are not ready for partnering and there is attitude problem among partners and project team. People do not understand what's each other need and role. However, some of the respondents stated that partnering system was not suitable. This is due to the difficulty of implementing in the real world when they are forced to go into partnering.

In order to obey the client's requirements, the profit had to be shared, which resulted in a small amount of individual professional fees received. Some of the respondents said that partnering systems are not really accepted by the older generations of quantity surveyors. They stated that they did not see any future in partnering when it is conducted in a long term approach. It is believed that partnering is suitable for a short-term basis; for example, at pre-contract stage where the QS team evaluates monetary value of the project. They also think that partnering is best applied among contractors rather than among Quantity Surveyors and suggested that partnering can be developed, but only by government interventions and awareness campaign.

Most of all the respondents claimed that partnering is most beneficial during earlier stage of contract. It is when the workshop will be held among the facilitator and key players. The quantity surveyors also need to make sure that their companies have to state legally or in clauses in the contract document without fail. This is believed to be able to avert future disputes. The respondent claimed that the usage of partnering is beneficial for multimillion projects using Public Fund Initiative project (PFI), turnkey and design and build procurements. It is believed that partnering is most beneficial when both companies were ready to collaborate resources; management, expertise and experiences. Besides, some of the respondents agreed that partnering was beneficial where the traditional risk strategy is not appropriate. It will spread the risk element and strive to achieve good returns and satisfaction. For some respondents, they would like the partnering to bring benefits to clients in hard time or recession. It would give the clients and them a way in managing their money.

Some of the respondents claimed that the partnering systems are most beneficial when:

1. [When] the parties of the partnering team knows each other and their method of working.
2. [...] If you want to do partnering you have to state legally or in clauses in the contract document by all means.
3. [For] big project with various type of building/ infrastructure, and limited time frame given.
4. [When] the resources are not achieve the requirement but the knowledge is more than required.
5. [For] projects where traditional risk transfer strategy is not appropriate.
6. [For] multimillion projects that are full of risks and limited framing availability, e.g.: PFI projects.
7. [For project] lacking in certain expertise or insufficient resources.
8. The right partner in the right field of job scope.
9. [During] hard time [economic].
10. [For] small and medium enterprises.
11. [When] all parties start to trust each other.
12. [Where] risk involved and return commensurate. Partnering spread the risk.

CONCLUSION

The finding has clarified many issues that arose associated with the implementation of partnering system at early stage. The questionnaire survey has identified the perceived benefits and barriers from the respondents. The in-depth interviews also render an important message on the actual implementation of partnering among quantity surveyors.

Respondents verified the partnering system is suitable to be implanted in larger scale projects. The system could be applied if the size of the participating firms and the expertise of the quantity surveyor suited the project. Partnering is suitable to be applied but difficult to implement unless the project has its cost benefit and lower the risks among the parties involved. They felt that the government need to provide more courses and seminars among key players and students in the construction field. Educating early can increase the awareness of benefits and importance of partnering system in the early stage. In addition, the need of partnering courses is important to attract them to participate and discuss the matter in a more comprehensive manner with all bodies involved in the construction industry.

However, some of them felt that the system of partnering should be explained clearly. Hence, in the management, training should be provided to avoid any inefficiency of working committee, lack of trust between employees across partnering firms, partner's lack of management competence and resourcefulness and disagreement on allocation of staff positions in partnering. For an effective implementation of partnering system, it should go through the SWOT analysis (Strength-Weaknesses-Opportunity-Threat). Due to increased competitiveness and market slowdown, partnering might be a good alternative solution during the critical time. It would yield multi outcomes and improve the business relationship among the peers.

REFERENCES

- Abdul-Aziz, A. R., Jaafar, M., & Hussin, A. A. (2007). Are government-linked construction companies in Malaysia still valid? The indigenous contractors' perspective. *Construction Management and Economics*, 25(10), 1009-1019.
- Abdul-Aziz, A. R., & Wong, S. S. (2010). Exploring the internationalization of Malaysian contractors: the international entrepreneurship dimension. *Construction Management and Economics*, 28(1), 51-61.
- Akintoye, A., & Fitzgerald, E. (2000). A survey of current cost estimating practices in the UK. *Construction Management & Economics*, 18(2), 161-172.
- Awodele, O. A., & Ogunsemi, D. R. (2007). An Assessment of Success Factors and Benefits of Project Partnering in Nigerian Construction Industry. In *W092-Special Track 18th CIB World Building Congress May 2010 Salford, United Kingdom* (p. 180).
- Ali, A. S., Mohd-Don, Z., Alias, A., Kamaruzzaman, S. N., & Pitt, M. (2010). The performance of construction partnering projects in Malaysia. *International Journal of Physical Sciences*, 5(4), 327-333.
- Babbie, E. R. (2013). *The basics of social research*. Cengage Learning.
- Bennett, J., & Jayes, S. (1995). *Trusting the team: the best practice guide to partnering in construction*. Thomas Telford.
- Botha, E., & van de r Waldt, D. L. R. (2010). Relationship antecedents that impact on outcomes of strategic stakeholder alliances. *African Journal of Business Management*, 4(8), 1629.
- Bryman, A. (2015). *Social research methods*. Oxford university press.
- Latham Sir, M. (1994). Constructing the team: Final report of the government/industry review of procurement and contractual arrangements in the UK construction industry.
- Cahill, D., & Puybaraud, M. C. (2008). Constructing the Team: The Latham Report (1994). *Construction Reports 1944-98*, 145.
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of applied psychology*, 78(1), 98.
- Research Design - Qualitative, Quantitative and Mixed Methods Approaches*, Lincoln, SAGE Publications
- De Vaus, D. 2002. *Survey in social research*, New South Wales, Routledge.

- Dulaimi, M. F., Ling, F. Y., & Bajracharya, A. (2003). Organizational motivation and inter-organizational interaction in construction innovation in Singapore. *Construction Management and Economics*, 21(3), 307-318.
- European Construction Institute 2003. *Long Term Partnering - Achieving Continuous Improvement and Value*, United Kingdom, European Construction Institute ECI.
- Fellows, R. F., & Liu, A. M. (2015). *Research methods for construction*. John Wiley & Sons.
- Field, A. (2009). *Discovering statistics using SPSS*. Sage publications.
- Gottlieb, S. C., & Haugbølle, K. (2013). Contradictions and collaboration: partnering in-between systems of production, values and interests. *Construction Management and Economics*, 31(2), 119-134.
- Adnan, H., Heap-Yih, C., Idris, M. H., & Ahmad, N. (2011). Partnering for small medium contractors in Malaysia. *African Journal of Business Management*, 5(35), 13364-13372.
- Adnan, H., Rahmat, M. N., Mazali, N. F. N., & Jusoff, K. (2008). Risk management assessment for partnering projects in the Malaysian construction industry. *J. Pol. & L.*, 1, 76.
- Adnan, H. B., & Morledge, R. (2004). *Joint venture projects in Malaysian construction industry factors critical to success*. Nottingham Trent University.
- Adnan, H., Shamsuddin, S. M., Supardi, A., & Ahmad, N. (2012). Conflict prevention in partnering projects. *Procedia-Social and Behavioral Sciences*, 35, 772-781.
- Lee, I. K., & Shin, J. H. (2013, November). Delivery of subway line 9 in Seoul, South Korea—lessons in public–private partnering. In *Proceedings of the Institution of Civil Engineers-Civil Engineering* (Vol. 166, No. 4, pp. 185-191). Thomas Telford Ltd.
- Matthews, J., Pellew, L., Phua, F., & Rowlinson, S. (2000). Quality relationships: partnering in the construction supply chain. *International Journal of Quality & Reliability Management*, 17(4/5), 493-510.
- Chisnall, P. M. (1993). Questionnaire design, interviewing and attitude measurement. *Journal of the Market Research Society*, 35(4), 392-393.
- Oppenheim, A. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*, Pinter, London. [Google Scholar](#).
- Saunders, M., Lewis, P. & Thornhill, A. 2007. *Research methods for business students*, Essex, Prentice Hall.
- Sekaran, U., & Bougie, R. J. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Steven, R. Partnering, Environmental & Risk Management. International Construction Conference 2004, 2004. CIOB Malaysia.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, 2, 53.
- Tennyson, R. The Partnering Toolbook, The International Business Leaders Forum (IBIF), the Global Alliance for Improved Nutrition (GAIN) 2003.
- De Vaus, D. A., & de Vaus, D. (2001). *Research design in social research*. Sage.
- Swan, W., & Khalfan, M. M. (2007). Mutual objective setting for partnering projects in the public sector. *Engineering, Construction and Architectural Management*, 14(2), 119-130.
- Wilson, M., & Sapsford, R. (1996). Asking questions. *Data collection and analysis*, 74.
- Yong, Y. C., & Mustafa, N. E. (2013). Critical success factors for Malaysian construction projects: an empirical assessment. *Construction Management and Economics*, 31(9), 959-978.
- Zuo, J., Chan, A. P., Zhao, Z. Y., Zillante, G., & Xia, B. (2013). Supporting and impeding factors for partnering in construction: a China study. *Facilities*, 31(11/12), 468-488.

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