PROJECT SUCCESS AND RELATIONSHIPS FROM A STAKEHOLDER PERSPECTIVE: A PILOT STUDY

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In this exploratory study the authors sought to understand the link between 'project success' and 'stakeholder relationships'. Additionally, it sought to identify the key ingredients necessary for the achievement of successful relationships.

Criteria for 'project success' vary. 'Time' and 'cost' are the commonest with a lesser emphasis on quality. Criteria such as risk, conflict, and safety though usually excluded need to be reckoned. One of the key factors that lead to success with respect to these criteria is successful stakeholder relationship; a strong link exist between project success and relationships. Therefore, the knowledge of factors (ingredients) that lead to successful stakeholder relationships is necessary. Accordingly, this study finds the following to be the main 'ingredients' that make successful relationships. Cited in their ranked order, these are: Communication; ability to successfully manage the client; existence of key personnel; timeliness, taking ownership and accountability, having appropriate planning, control and administrative systems in place, understanding peoples' requirements and needs especially of the client; honesty; trust, sharing goals; keeping promises, organization structure and characteristics. Whilst these are the main ingredients for successful relationships, this study fails short in explaining 'how' these 'ingredients' influence stakeholder relationships; clearly, an area for further study. Moreover, with the discovery of new factors that has not been studied hitherto, there is grounds for further research.

The type of stakeholder relationship has an effect on project success too. Most view the client-contractor relationship as having the greatest impact. A model that incorporates all these concepts has been provided and goes to enlighten further the link between 'project success' and 'stakeholder relationships'.

Key words: project success, relationships, stakeholders

BACKGROUND

During the last decade Arrow International has grown to be one of the largest project and construction management firms in New Zealand. They consider planning, leadership, relationships, resources (people, in particular) and systems as critical factors for delivering successful projects and that each of these factors needs to be addressed for project success. Additionally they claim that 'outstanding results are only achieved when people are motivated and take responsibility for a project. After all, it is people that make … projects happen. So, we believe, … relationships … are the key to every projects' success' (Arrow International Corporate Brochure 2000). A synthesized view is presented in Fig. 1, which does not incorporate all the concepts enumerated above.

If 'relationships' are of crucial importance to project success as explained above, what then are the ingredients that would go into making these relationships successful?

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Indeed, a question of practical relevance. It is these contentions that inspired the authors to undertake this study.
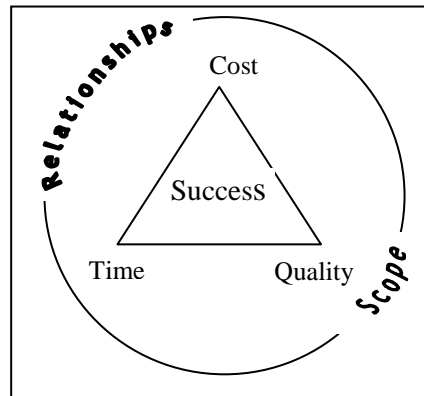
Figure 1: The essence of project management
(Source: Adapted from Arrow International Corporate Brochure, New Zealand)

AIMS AND OBJECTIVES

Understand the link between project success and relationships: What factors make project success achievable? Is successful relationship a key factor?

Establish a list of factors that contributes to successful relationships: What are the ingredients necessary for successful relationships?

Identify the most important factors: Which of these are important than others?

METHODOLOGY

According to Yin (1994) there are five strategies that are available to a researcher to pursue answers to a research question, be it an exploratory, descriptive, or an explanatory study viz. experiment, survey, archival analysis, history, and case study. As to whether one particular strategy is better than another is not clear due to the large areas of overlap between them. However, the goal is to avoid gross misfits in the selection of a strategy (or strategies). Guidance on their selection is provided by Yin (1994) based on three issues viz. the type of research question posed (who, what, where, how and why), the extent of control the researcher has, and whether the focus is on contemporary or historical events.

As the research question under this study focuses on the 'what' type of questions, the 'survey' strategy appears to be the best to adopt. A representative sample of respondents must then be selected from the population, which comprise of project stakeholders that include clients, consultants, contractors, subcontractors and suppliers. Though a self- administered questionnaire could have been used for data collection, after weighing number of issues, it was decided to use semi-structured interviews (with open ended questions). This method of data collection would limit the number of people who could be interviewed to elicit information. One strategy that could be adopted to get over this problem is to use what is referred to as a 'judgemental' or 'purposive' sample. Though a technique with limited application, it is a useful one and has merit in that it permits the selection of a sample based on one's own knowledge of the population, its elements, and the nature of the research aims. In other words, it is system that permits the selection of a sample of observations that the

researcher believes will yield a comprehensive understanding of the subject of study, based on the intuitive feel for the subject that comes from extended observation and reflection. In short, it is a system that is based on the researcher's judgement and the purpose of the study at hand. It is particularly useful in the preliminary stages of a wider and more encompassing study (Babbie 1988). The following criteria were adopted for the respondent selection when using this method: (i) Industry leaders in their respective fields (ii) Over 25 years of experience in the New Zealand construction industry. This 'purposive' or the 'judgemental' sample comprised of one from each stakeholder totalling to five. All of them were involved with the largest ever, green fields retail development project in New Zealand in which such hugely experienced and industry recognized participants were involved. This being the case, one may argue that the strategy used in this research is one of a 'case study' and not a 'survey'; in essence, it may labelled as a study using a mix of strategies, i.e. a survey within a case study. The procedure used for analysing data so collected is detailed under 'survey findings'.

PROJECT SUCCESS AND RELATIONSHIPS

A widely accepted criterion for success is to reach an acceptable level of success with respect to time, cost, and quality. However, these are not the only criteria. For instance, Hyun, Kim, Liu and Pocock (1996) excluded quality as a criterion of success and added two additional criteria viz. 'satisfying profit or fee goals' and 'having no legal claims'. Minimizing construction aggravation is yet another that is considered to determine project success (Molenaar, Robinson and Songer 1998). Moreover, the impact of such factors on project success varies. An example in point is the hierarchical model of project success proposed by Chua, Kog, and Loh (1999). Given this uncertainty there is doubt as to what factors project stakeholders would consider as important to achieve project success. One of the questions of this study therefore is whether 'relationships' is a key contributory factor.

A 'stakeholder relationship' is a 'state of being connected' that goes beyond the confines of apparently clear contractual and commercial boundaries to achieve project success (Oxford Learner's Dictionary 1989). A study by Chua *et al.* makes only a brief reference to 'relationships' as contributing towards project success and is only one amongst 67 factors that have been identified. However, no definition was given as to what they meant as 'relationships'. In contrast, a study by Haksever, Lim and Pickering (1996) have shown in no uncertain terms that long term relationships have a positive impact on time, cost, and quality criteria of project success. This study also points out that the impact on risk and conflict is greater when compared with aforementioned criteria. Walker (1996) too has confirmed the importance of effective relationships as a main contributing factor to project success. A concluding remark of a study by Arditi and Guanaydin (1998) on the impact of relationships on one particular criteria, i.e. quality, reinforces the importance of successful relationships on project success: 'The quality achieved in any phase is contingent on the strength of the relationships among the manufacturer, the subcontractor, the main contractor, the professional designers, the project managers, and, above all, the owner…' Whilst these studies has highlighted the impact of successful relationships, the impact of adversarial relationships on project success have been studied by Hinks, Allen and Cooper (1996) who bring to light the negative impacts such relationships have on time and cost resulting in longer construction periods and higher costs. Whilst it is clear from these reviews the impact relationships have on project success, what then are the

ingredients that go to make successful stakeholder relationships in order to achieve successful project outcomes? A summary of these factors from literature review is given in Table 3.

SURVEY FINDINGS

Project success
All five participants identified successful completion of a project in terms of time and cost as factors defining project success. Quality as a criterion was less recognized (in keeping with lit review findings as well) although one of the respondents commented that it was far more important than time and cost; a project, couple of days late, or slightly over budget, is of little importance when compared with issues related to quality which may surface over the entire length of project's life. A full summary of these findings is displayed in Table 1 with the response rates shown within brackets, which provides an insight into their relative importance. It is seen that defining project success in terms of the time, cost and quality is still the strongest with 70% of the responses falling within these categories. However, it is seen that criteria previously not documented have been identified. Cleary, in the light of these findings, the model depicted in Fig 1 may need to be revised.

Table 1: Definition of Project Success
"A successful project is one which ...."

Literature Review Findings	Interview Findings
Is completed on time	*Is completed on time (27%)*
Is completed to budget	Is completed to budget (27%)
Is completed to quality requirements	Is completed to quality requirements (16%)
Conforms to users' expectations	Meets clients' expectations and needs
Meets specification	Has happy stakeholders
	Exceed expectations (6%)
Meets profit or fee goals	Meets profit/fee goals
	Satisfy all requirements of stakeholders (6%)
	Is completed safely (6%)
Have no legal claims. Minimizes construction aggravation. Have no conflicts.	

(Figures within brackets refer to frequencies = no. of responses/total no. of responses)

The reference to 'completing projects safely' (see survey data) is an interesting one as it reflects its importance in the current construction environment. Risk is another criterion that was cited in response to another question. The lack of reference to the 'environmental' criterion both within the lit review and survey is surprising. As noted before, there are many criteria that would determine project success; and it appears possible to establish a universal set of criteria that would determine project success. But, would it differ from the perspectives of different stakeholders? An examination of the results shows that this is the case. By and large the time and cost criteria remain the same but what is seen is the emergence of other criteria such as meeting profit/fee goals and completing projects safely. As such, there is a degree of uncertainty that prevail with regard to the scope of criteria and the relative importance of these on project success with respect to the stakeholder perspectives. This uncertainty is captured by a comment made by one of the respondents when he said that 'project success' was about "blending all the facets of success together"; indeed, a statement that merit further examination.

Factors that make project success achievable
Rather than asking a leading question on whether 'relationships' is a key factor of
project success, the question asked was: "What factors make project success
achievable?" Number of factors were cited ranging from good communication, timely
documentation, minimizing variations, quality personnel, less paperwork,
comprehensive risk analysis, hassle free building solutions, ability to manage clients
to safe completion with only a minimal reference to 'good relationships'. These
factors could now be linked with the success criteria. Of these, 'hassle free building
solutions' is an interesting one. The key challenge for the main contractor is to take
the delivery risk away from the client. After all, the contractor is the building expert
and as such must be capable of delivering a project without a risk being placed on the
client who is saddled with the 'ownership' and 'occupation' risks. Understanding this
philosophy was argued by one respondent to be a key factor for achieving project
success. When the above-mentioned factors were compared with lit review findings,
there was only little commonality and that too with respect to communication, timely
documentation, participant-personalities, and of course to relationships thereby
increasing the number of factors that affect project success. Does all these mean that
'relationships' is not a key factor?

Relationships as a contributing factor
The question probing the captioned heading was "Do you see successful relationships
as being a contributory factor towards project success?" which was intended to
purposefully analyse the subsistence of 'relationship' as a key factor if not the key
factor. All respondents rated 'relationships' as a key factor for project success barring
one. These responses along with their associated comments are shown in Table 2 and
are interesting considering the minimal reference to 'relationships' with respect to the
question raised in the above foregoing paragraph.

Table 2: Are relationships a contributing factor towards project success?

Participant's Response	Elaboration Given
Biggest Factor	Open team approach
	A 'how can I help' approach
	Open communication policy
Absolutely Vital	No 'relationship' - allows financial exposure.
Key Component	Based on a partnering relationship with a "sociological contract sharing a commitment to success" rather than a formal partnering agreement
Essential	Requires good personnel
Important but not	Can still achieve success without everyone agreeing
Imperative	More critical for the 'people at the top' to be happy

The first respondent (contractor) who identified 'good relationships' as the biggest
factor stressed the need for an open door policy where stakeholders can readily relate
to one another and execute unproblematic solutions to project concerns. The second
respondent (supplier) saw the importance of relationships in terms of financial
security and pointed to the exposure stakeholders may open themselves to, if good
relationships are not established and maintained from the outset. As a supplier he was
concerned with his company's ability to procure further orders and highlighted the
need to provide a quality service based on good relationships. The third respondent
(client) who identified relationships as being a key component believed that the key to
successful relationships involved a sociological contract (between stakeholders)
sharing a commitment to success. The fourth respondent (subcontractor) identified the
need for a personal approach to establishing and maintaining relationships. The fifth

respondent (consultant) while identifying the existence of 'relationships' as an important facet of project success did not believe it was imperative that successful relationships exist across the board. The respondent recalled a number of jobs and indeed a current project where not all stakeholders were in harmonious relationships. It was imperative however that a good relationship existed between the two key stakeholders on a project, typically the main contractor and the client – ideas, which border on certain relationships being more important than others, a 'blend' of relationships for success.

Given these observations, it is surprising why 'relationships' was not identified as one of the main, if not the main factor, in response to the earlier question. Perhaps, this may be due to the ease in which factors within relationships could be identified. Moreover, the very fact there is an existing relationship could have made the respondents overlook or taken for granted it as an influencing factor. Only when the respondents were asked whether relationships played a role in achieving project success did they acknowledge and elaborate on its existence!

Factors contributing to successful relationships
Central to this study is the identification of factors for achieving successful relationships between stakeholders. A two-pronged approach was adopted for this purpose. An initial question asked the five respondents to identify the top ten factors that they believed were important for achieving successful relationships and only one of the respondents identified more than ten factors. In each instance, the respondents rapidly identified the first four to five factors but spent a considerably longer time on the remaining on the remaining factors. Perhaps, one reason for this is explained in Fryers' (1997) study of what a construction manager's job entails. In this study, a number of construction managers struggled to remember and identify what activities they completed in a typical day. To try and determine these activities an independent person was placed in each participant's office and accurately recorded the events and activities they completed in a typical day. Results showed that 90% of the activities consisted of informal unplanned activities lasting a duration of seven minutes or less, naturally, making recollection difficult. This same scenario may well apply to this question. As such a similarity in trying to recall the ten most important factors for achieving successful relationships may well prove as difficult as the above study.

The findings from this question provide some intriguing analysis when compared with the 21 factors that were established through literature review (see Table 3). Perhaps, the most intriguing analysis was found from the second component of this question where all the above factors (44 in all) were presented to the respondents for ranking in order to establish the five most important factors. However, as one respondent ranked the top 5 equally, there was some difficulty in computing an average ranking (i.e. total sum of the rankings/number of times identified). This was overcome by allocating a score of 3 for all the top 5 factors cited by this respondent (i.e.1+2+3+4+5/5) which resulted in the following rankings: Rank 1: Communication, Rank 2: Ability to successfully manage client, Rank 3: Existence of key personnel, Rank 4: Timeliness, taking ownership and accountability, having appropriate planning, control and administrative systems in place, understanding peoples' requirements and needs especially of the client, Rank 5: Honesty, Rank 6: Trust, sharing goals, Rank 7: Keeping promises, organization structure and characteristics. Perhaps, there is also a need to group factors into a smaller number as indicated by Saaty and Vargas (1991).

Table 3: Comparison of Key Factors for Achieving Successful Relationships

Literature Review	Interviews
Similar Factors	
Organization Structure and characteristics (1)	Appropriate systems and procedures
Planning, control and administration (2)	Planning
Participants share the same goals (3)	Sharing goals and objectives
Formal identification of key personnel skills	Key personnel
required for key positions (4)	Experience
Partnering (5)	Partnering
Formal and informal team building activities (6)	Maintaining morale
Develop a consensual and	Problem solving ability
co-operative style (7)	Open door policy
Awareness of the mechanics that govern	Openness
relationships (8)	Honesty
Developing conceptual and interpersonal skills	Timeliness
(9)	Keeping promises
	Integrity
	Fairness
	Consistency
	Listening skills
Trust (10)	Trust
Communication (11)	Communication
Other factors	
Contractual arrangements (12)	Risk management
Understanding mechanics of conflict and	All stakeholders on site
developing conflict resolution skills (13)	
Understanding strengths and	Taking ownership and accountability
Weaknesses of people (14)	
Matching your behaviour and language to other	'Sticking up for the Team'
people (15)	
Personal traits of project participants (16)	Job performance
Be receptive of non-verbal communication (17)	Quality of workmanship
Develop Assertion skills (18)	An 'attitude of mind'
Be receptive of cross cultural factors (19)	Ability to successfully manage client
Involve stakeholders earlier in the building	
process (20)	
Adequate documentation (21)	

References to factors cited above: (1,12,16) Chua *et al.*'99, Walker'96 (2) Walker'96 (3,7,8,11,13,15,17,18,19). Hollands'97 (4) Allan, Hinks and Cooper'96 (5) Sarkilahti'96 (6,10) Rowings and Federle'96, Luck andNewcombe'96 (9) Allan *et al.* '96, Fryer'97, Moodley'98 (11) Arditi and Guanaydin'98, Walker'96, Fryer'97 (14) Rowlings and Federle'96 (20)Mathew,Thorpe and Tyler'96 (21)McLean'00)

The importance of relationships between all stakeholders

Whilst the importance of all stakeholder relationships as well as factors contributing to successful relationships were established, this final question was to identify the importance of the stakeholder relationships against each other in terms of achieving project success (see Appendix for the exact question). Three of the respondents identified the relationship between the main contractor and the client as being the most important in terms of achieving project success thereby bringing in the notion of a hierarchical model of relationships. In support they argued that as client and the contractor were the two biggest stakeholders had most to loose being the biggest risk takers. Managing this risk based on sound relationships were seen to be a greater

challenge when compared with other industries. As such the need for successful relationships were seen to be even more important. However, others cited the need for the existence of sound relationships across the board. A model incorporating these views (both hierarchical and across the board) and 'ingredients' that contributes towards success is shown in Fig.2.
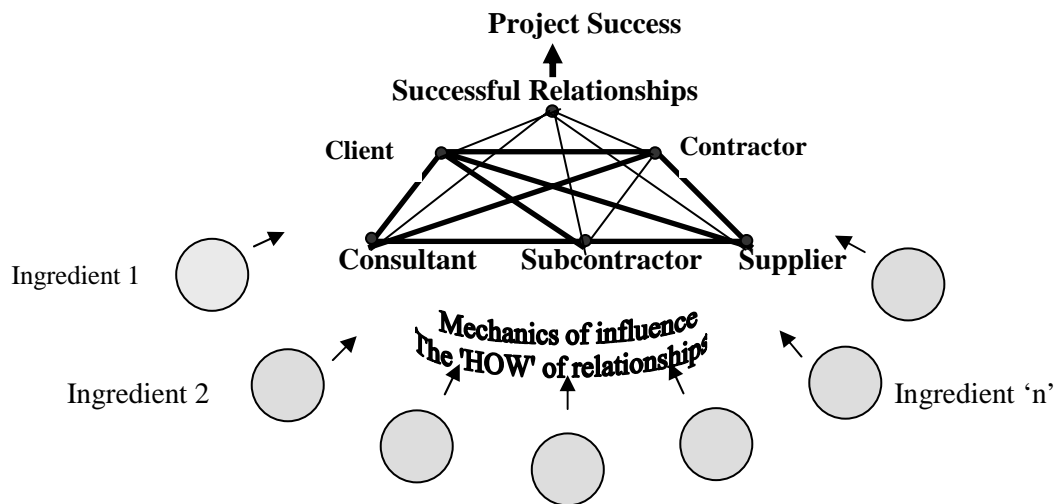
Figure 2: A conceptual model of stakeholder relationships and project success

CONCLUSIONS

Stakeholders' perspectives on criteria for project success and the relative importance of the criteria vary. Whilst time and cost criteria appear to be the commonest with a lesser emphasis on quality, there are other criteria such as safety, risk minimization, avoidance of conflict that need to be reckoned; project success is seen as a blend of "all facets of success" related to these criteria. There are various factors that affect project success. However, most of the respondents viewed 'successful relationships' as a key factor, if not the key factor. The 'ingredients' for successful stakeholder relationships were identified. They are: 1.Communication 2. Ability to successfully manage client 3: Existence of key personnel 4. Timeliness, taking ownership and accountability, having appropriate planning, control and administrative systems in place, understanding peoples' requirements and needs especially of the client 5. Honesty 6. Trust, sharing goals 7. Keeping promises, organization structure and characteristics. This study, however, did not attempt to identify how these 'ingredients' influence these relationships though important (i.e. the mechanics of influence). Whilst most respondents viewed the client-contractor relationship as having a greater impact on project success the view of other stakeholders was that all 'relationships' were important. These findings are embodied in a concept model shown in Fig. 2.

This study is not without limitations. Respondents could have been selected from a different project, as there was no necessity for them to be from the same project. However, it is not anticipated that this would have a significant impact on the findings. Whether a larger sample would result in a different set of results is to be seen. Whilst further research will determine the impact of these limitations, this study proved to be useful on a number of other fronts. For example, it enabled authors to (a)

understand the usefulness of judgemental sampling for exploratory studies and exploratory stages of research project (b) the enormity of the data that can result from a '5 respondent–5 question' interview survey, and (c) understand the suitability of other approaches that can be adopted for research design.

The discovery of new 'ingredients' that has not been studied hitherto needs to be explored in depth. Additionally, how these 'ingredients' influence successful relationships is another area that remains to be explored. Clearly, there is a need to understand further, the link between 'project success' and 'stakeholder relationships', so as to better manage projects to a successful completion.

ACKNOWLEDGMENT

REFERENCES

Allen S., Hinks, A.J., and Cooper, R.D., (1996) Adversaries or Partners? Developing Best Practice for Construction Industry Relationships, *In:* D.A. Langford, ed., *The Organization and Management of Construction: Shaping Theory and Practice,* London: Spon.

Arditi, D., and H.M. Gunaydin, (1998) Factors that affect process Quality in the Life Cycle of Building Projects*, Journal of Construction Engineering and Management,* (May/June), 194-203.

Babbie, E. (1988) *The Practice of Social Research*, Wadsworth Publishing Co., California, Fourth Edition.

Chua, D.K.H., Kog, Y.C., and Loh, P.K., (1999) *Critical Success Factors for Different Project Objectives, Journal of Construction Engineering and Management., (*May/June), 142-150.

Fryers, B., (1997) *The Practice of Construction Management,.* 3rd ed., Oxford, Blackwell Science Ltd.

Haksever A.M., Kim, H.S., and Pickering, G. (1996) *Benefits of Long Term Relationships: UK Contractors Experience, In:* D.A. Langford, ed., *The Organization and Management of Construction: Shaping Theory and Practice,* London: Spon.

Hollands D.E., (1997) *Relationships – Working Together", Construction Contract Seminar Notes,* Auckland [online] Available from: http://homepages.ihug.co.nz/~deh/relates.htm [Accessed: 12th July 2001].

Hyun, C.T., Kim, M.K., Liu, L.Y., and Pocock, J.B., (1996) Relationships between Project Interaction and Performance Indicators*, Journal of Construction Engineering and Management,* (June), 165-176.

Luck, R.A.C., and Newcombe, R. (1996) *The Case for the Integration of the Project Participants' Activities within a Construction Environment, In:* D.A. Langford, ed., *The Organization and Management of Construction: Shaping Theory and Practice,* London: Spon.

Molenaar, K.R., G.D. Robinson., Songer, A.D., (1998) Selection Factors and Success Criteria for Design-Build in the U.S. and U.K.*, Journal of Construction. Procurement.* London: Spon.

Rowings, J.E., and Federle, M.O., (1996) *People and Projects – Building Successful Combinations, In:* D.A. Langford, ed., *The Organization and Management of Construction: Shaping Theory and Practice,* London: Spon.

Saaty, T.L., and Vargas, L.G., (1991) *Prediction, projection and fore-casting.* Kluwer Academic, Boston.

Sarkilahti, T., (1996) *Long Term Cooperation Between Main Contractor and its Suppliers in Construction. In:* D.A. Langford, ed., *The Organization and Management of Construction: Shaping Theory and Practice,* London: Spon.

Walker, A. (1996) *Project Management in Construction,* London, Blackwell Science Ltd.

Yin, R.K. (1994) *Case Study Research - Design and Methods,* 2nd ed., Applied Social Research Methods Series, **5**, Sage Publications