LESSONS LEARNED IN AVOIDING DIFFERENCES AND DISPUTES: A QUANTITY SURVEYING PERSPECTIVE BASED ON A CASE STUDY IN PROJECT COMMUNICATION

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ABSTRACT

Studies regarding communication problems experienced by clients and contractors in the construction industry are uncommon. There was a need to research effective project communication, particularly in respect of communication for and between clients and contractors as this may provide a valuable contribution to communication in the industry. This paper identifies problems related to project communication which may cause differences and disputes in respect of large construction projects in the property development sector. The focus is on experiences gained during the development of a large shopping mall of 180 000 m² in Bloemfontein, South Africa. A case study approach was used. Various communication instruments such as cost plans, payment advice, cost reports, escalation, final accounts, contract terms, etc. were analysed and critically reviewed to establish the effectiveness of, and problems related to each. Results identified the following factors influencing effective communication between clients and contractors: Time management; information management; cost management; e-mail management and empowerment of agents. The study also showed that the following are elements of a good communication strategy: Communication framework and forum; value of communication instruments, a pre-established budget strategy; claims adjudication and certification without delay. Structured communication management and continuing interaction are basic elements to avoid disputes.

Key words: Project communication, construction communication, disputes, claims, construction industry

INTRODUCTION

Project communication is an important part in the development and maintenance of relationships that ultimately influence and control the project. During the project development phase, many

professionals felt inhibited by the almost autocratic communication style of the project manager which influenced the natural participation of agents.

Types of communication important for project communication

Verbal communication

Scott (1984:12) outlined in terms of verbal communication the following: “The brain is a remarkable tool. It has the capacity to remember, to be creative, to analyse and to articulate; but, all too often, when people are trying to put their thoughts in order, they find it very difficult. They find that despite knowing their subject matter very well, they cannot easily sort it out into a simple framework”.

Rodger Sperry, a Nobel-prize winner for his work stated: “Two sides of our mind”, had an outstanding effect on peoples’ comprehension of inter-personal communication. His work strengthens the premise that effective communication represents total comprehension that is aimed at the total person (Decker, 1989:36).

Credibility, sincerity and integrity is the key to effective communication and should be clear, observable, visual, verbal and vocally absorbed by the listener, as stated by Bernard Baruch “The ability to express an idea is well nigh as important as the idea itself.” (in Decker, 1989: 27-35).

Architects and construction managers find face-to-face communication to be the most effective type of communication media (Emmitt & Gorse, 2003:119).

The research, however, concentrated less on this aspect and more on the written communication instruments but, verbal communication disruptions were caused by ineffective written communication instruments and procedures. The above principles were largely ignored by the parties involved, which lead to a breakdown in natural flowing communication that could have resulted in improved solutions to serious problems.

Written communication

The other important attribute of man is the ability to write. The communicator must make sure that their written meaning and aims are understandable to the reader (Berry, Kotze & Du Toit, 2008).

According to Emmitt & Gorse (2003:124), written reports, letters, minutes of meetings, etc are essential for the smooth running of projects and will be used as evidence in the event of a dispute. Compared with oral communication, all written communication should be more concise, more discreet, more accurate and free of ambiguity to the reader.

In commerce the main aim is to ensure that the receiver understands precisely what is written, because time is money in business. The fewest possible words that are clearly presented is the aim in written communication (König, Conradie, Geyer, Van der Westhuizen, Albertyn, De Bruyn, Valkhoff, Van Schalkwyk, 1993:105).

According to Sillars (1994:161) every letter communicates two messages, namely information for the receiver and an indication of the sender. The outlay clarity, accuracy of expression and inclusion of all the relevant detail is important to help the reader formulate an impression of the writer. In business this could have a large impact, especially if the letter content is selling goods or services. The above principles were not always adhered to by the parties involved in the project which added to communication difficulties. Part of written communication documentation is contractual communication which is a vital element of the quantity surveying communication.

Contractual communication

Written communication principles are also relevant in contractual communication principles. Malherbe and Lipshitz (1978:72) stipulate the following principles that are fundamental when drawing up a contract:

> "The parties must be at one as to the consequences contemplated by such agreement or in other words, as to their intention in the application of agreed contractual relations".

Loots (1985:3) argues that "the success or failure of a construction contract is greatly dependent on the managerial effort expended by the employer and his architect, project manager, consulting engineer or quantity surveyor when formulating and awarding a contract." Figuratively speaking, one should choose your weapons before you enter a battle.

Communication instruments used for projects by quantity surveyors

The aim of a previous study done by the University of the Free State in 2006 was to test the communication instruments that professionals in the construction industry normally use. Figure 1 shows the results of this research project based on a questionnaire sent to architects, quantity surveyors and engineers.

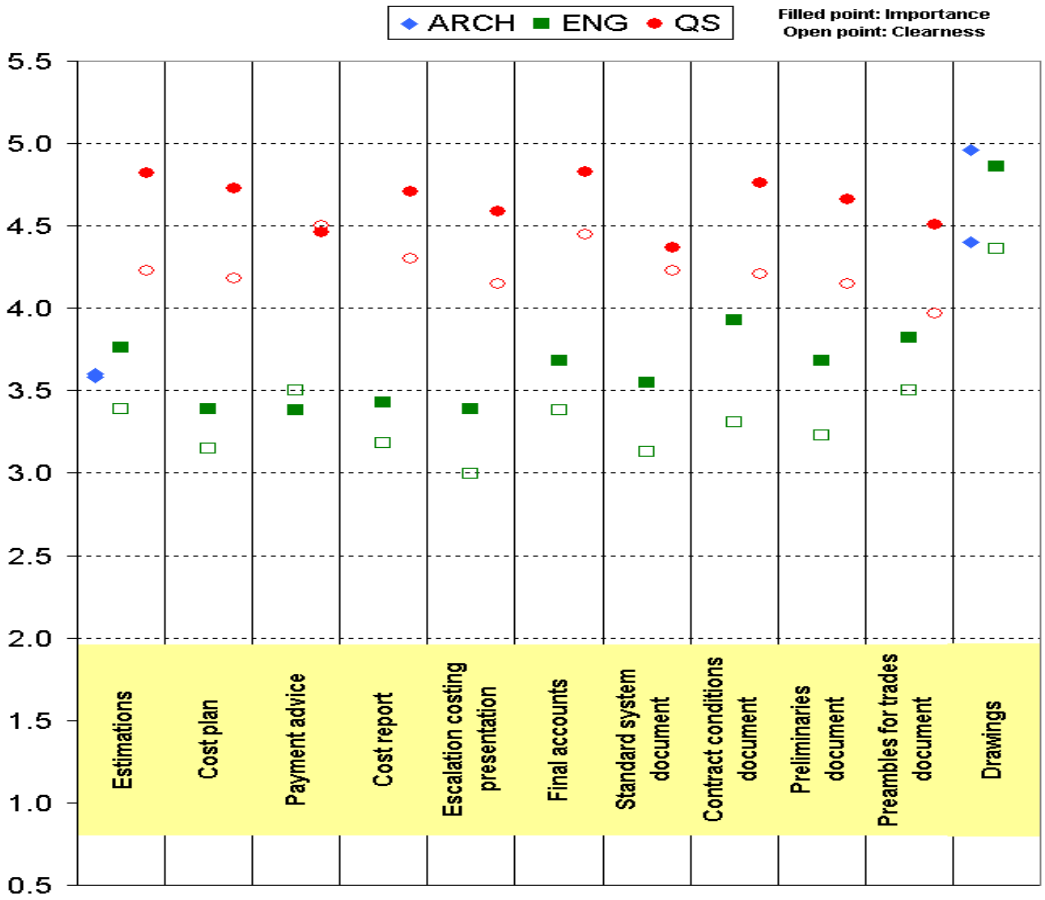

Figure 1: Importance of communication instruments used by practicing professionals for projects. (Ratings are: 1= low, 3= intermediate, 5 = high)
Source: (University of the Free State, Department of Quantity Surveying and Construction Management, 2006).

The importance of estimations, cost plans, cost reports, escalation costing presentation, final accounts, contract conditions document, preliminaries documents and preambles for trades document, as communication instruments of the quantity surveyor were identified as extremely positive and rated above 4.5.

The payment advice (interim payment document to contractor) and standard system document were also experienced in a positive manner as communication instruments of the quantity surveyor, but although highly rated, were considered by the respondents to be least important and rated slightly below 4.5 (90%).

Drawings as communication instruments of the architect and engineer were identified as extremely important and rated almost 5 (100%).

RESEARCH

The aim of this paper is to identify problems related to project communication which may cause differences and disputes in respect of large construction projects in the property development sector. The specific project investigated was not unique in respect of problems related to communication, communication instruments, claims and counter claims and differences of opinion.

The original contract was concluded between the main contractor, an international company, and a client who operates throughout South Africa, for an amount of about $60 million, based on the provisional bills of quantities method, of which about 50% of costs were for building and structural work and 50% for specialist installations included in the contract sum as provisional sums. A project manager was appointed after the production process commenced and communication systems were largely changed by him. Many sub- and direct contracts had to be concluded with specialists. The complexity of many contracts and changes in communication systems added to the difficulties.

The research project aims at analysing the opinions and the perceived frustrations of the quantity surveyors who, on behalf of the client, had to develop tender and contract documents, cost reports, notifications, payment valuations and general cost and cost planning communications during the design and construction process.

The ten (10) quantity surveyors who were involved in the project in various capacities were interviewed, and responded to a specific questionnaire related to the main aspects that were identified as quantity surveying elements. These aspects are: communication instruments (13 questions), the effectiveness of these instruments (8 questions), communication and claims (11

questions), and possible future solutions to improve communication and avoid claims (8 questions).

The responses to the questions enabled the research group to identify the most serious problems and suggested solutions. The solutions suggested by the respondents assisted the research group to propose possible solutions to more effective communication procedures, processes, instruments and links.

Table 1 shows the above and all the results of the respondent's opinions in respect of the identified communication instruments used in this project.

Table 1: Results in respect of all identified instruments used in project

A.	OPINIONS ON COMMUNICATION INSTRUMENTS USED	Average Result 1-5	%
	A1 The original Bills of Quantities (Provisional bills)	2.9	58
	A2 Cost reports	4.1	82
	A3 Site / contract instructions	2.4	48
	A4 Minutes of meetings	2.7	54
	A5 E-mail communications by project manager	2.6	52
	A6 Employer's instruction	1.6	34
	A7 Packages (identification of work packages by project manager)	2.1	42
	A8 Package bills of quantities	3.2	64
	A9 Design and Specification	2.5	50
	A10 Drawings and details	2.6	52
	A11 Specialists cost / budget reports (example: Electrical engineer)	2.7	54
	A12 Claims communication (by M & R and SIP)	2.4	48
	A13 E-mail communication by agents	2.7	54

Source: (University of the Free State, Department of Quantity Surveying and Construction Management, 2007) (Ratings: 1= low, 3= intermediate, 5 = high)

The ten respondent's opinions (100% response) on the communication instruments used on the project were tested and resulted in an average opinion of 2,6 (52%) (on a scale of 1 = poor and 5 = excellent) in respect of all the communication instruments used. However, the original provisional bills of quantities were allocated 2,9 (58%) average and the cost reports 4,1 (82%) in respect of effectiveness.

Table 2 shows the results in respect of all general communication elements. It is also clear that apart from cost reporting and package bills of quantities, all instruments and communication processes were seen as below average expectations of quality procedures.

Table 2: Results in respect of all general communication elements

B.	STATEMENTS IN RESPECT OF COMMUNICATION	Average Result 1-5	%
	B1 E-mail communication was effective	2.7	54
	B2 Drawing distribution was managed well and on time	2.3	46
	B3 The professional team had an effective relationship	2.4	48
	B4 Project manager's project communication was effective and well managed	2.2	44
	B5 Owner / professional team relationship contributed to efficient management	1.6	32
	B6 Time and programming was managed well	1.7	34
	B7 Budget was clear and met the owner's strategy	2.2	44
	B8 Professional agents were empowered to do their work well	2.0	40

Source: (University of the Free State, Department of Quantity Surveying and Construction Management, 2007) (Ratings: 1= low, 3= intermediate, 5 = high)

The respondents were clear on their opinions related to the effectiveness or quality of general communication in respect of the specific project (Tables 1 and 2). The communication elements that were seen as least effective and most problematic were time management and project management communication (1.7) (34%). Owner/professional team relationship contributed to efficient management (1.6) (32%). Professional agents empowered to do their work well (2.0) (40%).

The following important elements of communication were also investigated in respect of the respondent's opinions thereof. These are shown in Table 3.

Table 3: Important elements of communication investigated and respondent's opinions thereon

C.	OTHER COMMUNICATION PROBLEM CONTRIBUTORS	Average Result 1-5	%
	C3 Claims for valuation of payment certificates were clear and on time	3.0	60
	C5 A good communication atmosphere was introduced via e-mail	2.4	48
	C7 The fact that the architects, structural engineer and project managers were from other cities was not problematic	2.3	46
	C10 Scope management to budget was to standard	2.3	46
	C11 Project managers were available	2.6	52

Source: (University of the Free State, Department of Quantity Surveying and Construction Management, 2007) (Ratings: 1= low, 3= intermediate, 5 = high)

Problems that clearly showed themselves were identified. The elements that stand out in respect of communication disruptions are:

- Site and contract instructions
- Employer's instructions
- Identification of work packages by project managers
- Design and specifications
- Drawings and details
- Drawing distribution was not managed well
- Professional team's relationships
- Project Managers project communication was effective
- Owner/professional team relationships did not contribute to efficiency
- Time and programme management was not done well
- The budget was under and the owner's strategy not known
- Professional agents were not empowered
- Communication atmosphere at meeting was not good
- The fact that the project manager, architect and structural engineer were not local professionals was problematic

It is worth noting that e-mail communication used for this project received a very negative response regarding the quantity surveyor's opinions of 54% effectiveness. The experience here

was that some e-mails were loaded with emotions. This may be due to the fact that e-mail responses are immediate or early, while the e-mail that a person is responding to is emotionally instilled.

The current situation regarding the project is that the final account cannot be settled and many claims and resolutions are outstanding. The client and contractor are heading towards arbitration and more than $8 million is at stake, of which about $7 million is for penalties for late delivery. Many claims for delays are not resolved. The above communication disruptions influenced disputes and differences negatively. A clear communication strategy was absent and this contributed further towards the unacceptable state of affairs.

LESSONS LEARNED IN AVOIDING DIFFERENCES, CLAIMS AND DISPUTES

Litigate for a jacket, but keep your trousers ready for the legal costs (Own translation of Langenhoven in Schannell, 1993:49)

It was evident from the start of the production process of the project that claims procedure, although included in the contract, was not a priority. The following aspects could have assisted the team towards better claims resolutions.

The goals of claims and dispute resolution

The goals of claim and dispute resolution are firstly to establish the right of any party to submit a claim, and secondly to enable the other party to consider the claim in terms of its validity, contractual terms and possible outcome (Verster, 2006; Chappell, Powell-Smith & Sims, 2005:3)

Lodging or considering a claim does not mean that a dispute exists, but should the rejection of a claim occur, or a different interpretation of a claim or opinion exist, one has to realise that a dispute may then be lodged. Dispute resolution should then assist the parties in resolving such an impasse in a cost effective, satisfactory and timeous manner (Verster, 2006)

The claims position

A previous survey conducted among eminent construction professionals lead to the establishing of the preference rating of various dispute resolution methods. The response rate of professionals was 100% (University of the Free State, 2006). Table 4 shows the respondents preferences for the ADR methods.

Table 4: Preferred ADR methods

Method	**Preference %**
Mediation	80
Agent resolution	80
Conciliation	75
Adjudication	66
Arbitration	60

Source: (University of the Free State, Department of Quantity Surveying and Construction Management, 2006)

Table 4 indicates that results from the survey have shown that conciliation does have a remarkable measure of success with regard to solving differences before they become disputes. Provisional research results show a high preference of 75% for this method. Respondents with experience of adjudication indicated a 66% preference rating for adjudication. It is clear from these results that respondents, who have experience of mediation, find the process most favourable and have shown an 80% preference for mediation. Although arbitration is written into almost all construction contracts, 60% of respondents who have experience of dispute resolution procedures indicate that it is the least preferred method in respect of alternatives to litegation. Most of the respondents were more positive regarding agent resolution, arbitration and mediation and as a result indicated a strong preference (80%) for resolution by the principal agent (Architect, Quantity Surveyor etc.) through negotiation, a traditional approach prescribed by usual standard contract terms (University of the Free State, 2006).

Claims and the project

The survey on the researched project also shows interesting results related to claims. Table 5 shows the results in respect of claims elements.

Table 5: Results in respect of claims elements

RESPONDENTS VIEWS ON CLAIMS	Average On a scale 1-5	%
1. Claims communication between the project manager and contractor were not well managed.	**2.4**	**48**
2. Contract and site instructions did not lead to difficulties and claims	**1.4**	**28**
3. Claims management was effectively done	**2.5**	**50**

Source: (University of the Free State, Department of Quantity Surveying and Construction Management, 2007) (Ratings: 1 = low, 3 = intermediate, 5 = high)

The deduction that may be made derived from the above is that claims and differences were not managed well at all. It is proposed that the reason for this is that a complete lack of a claims communication strategy existed and that the contractor and employer were so absorbed by their own legal position that communication related to claims faultered.

SOLUTIONS TO BETTER COMMUNICATION

After the reasonable negative experience regarding communication and claims in respect of the researched project, the involved quantity surveyor's opinions were clear as far as solutions to the communication problems were concerned. Outstanding quantity surveying solutions identified by them are:

- Established communication instruments must be used
- Timeous payment – claims, valuation and certification hold a key to avoiding claims
- Continuous pro-active structured interactions
- An agreed project communication framework
- Building a team that works together towards a common goal

In Table 6, the two proposed methods of resolving disputes are favourably received and given an average of 4.3 (86%) and 4.1 (82%) respectively out of a possible 5 in respect of acceptability.

Table 6: Results of responses related to solutions for better communication

D.	SOLUTIONS TO IMPROVE COMMUNICATION AND AVOID CLAIMS	IMPORTANCE	
		Average Result 1-5	%
	D1 An agreed project communication framework	4.2	84
	D2 An established communication forum	4.2	84
	D3 Establish communication instruments must be used	4.5	90
	D4 Budget strategy: communication to agent about financial and budget strategies	4.3	86
	D5 Timeous payment claims, valuation and certification	4.7	94
	D6 Continuous pro-active interaction	4.6	92
	D7 A claims forum, consisting of project manager, quantity surveyor, architects, contractor and employer (with power to resolve differences)	4.3	86
	D8 A claims resolution strategy to ensure that functionaries have resolution power prior to external resolution taking place	4.1	82

Source: (University of the Free State, Department of Quantity Surveying and Construction Management, 2007) (The ratings are: 1= low, 3= intermediate, 5 = high)

CONCLUSION

The research project shows that strong communication networking and links may contribute to successful communication, the limitation of disputes and disruptions, and positive end results. The lessons learned from this case study are that communication breakdowns lead to undesirable end results in respect of this project. However, the solutions suggested may enhance effective communication and lead to a better understanding between all parties involved in a project.

It seems clear that a pro-active communication strategy and claims resolution process should form part of a project management approach. Even though the project was managed by a large, well-known firm of project managers, the communication situation was unacceptable, due to the many determinants of failure already discussed. The project was eventually delivered, not on time, not within budget and not to the desired quality, but in the end, the project seems to work reasonably well as an investment, but, it could have been better.

RECOMMENDATIONS

It is recommended that prior to the start of a project development phase, a strategic communication and claims procedure, process and plan must be designed involving all stakeholders, including the client, contractor, project manager, architect, quantity surveyor, engineers and perhaps tenants. The procedure and plan should include the following:

- A pro-active communication framework sharing all the important links
- The manner in which parties send and respond to e-mails
- An established communication forum involving the most important role players
- Pre-designed and established, preferably standard, communication instruments
- Empowerment of strategic role-players i.e. the project manager, principal agent, architect and quantity surveyor
- A claims resolution strategy including various alternative resolution methods
- A claims forum to resolve claims effectively, timeously and finally

Further research is however needed to understand:

- the generality of communication and claims problems,
- other solutions available and to perhaps propose a communication and claims resolution model,
- to research the use of current information technology for more effective project communication to be implemented regarding large projects where so many professionals and agents are involved, and so much may be jeopardised or lost.

“With communication in place, the team is in the race”

BIBLIOGRAPHY

Berry, F.H., Kotzé, B.G & Du Toit, A.H.J. 2008. The performance of professional consultants in the construction industry in terms of communication capabilities and communication instruments. Unpublished.

Chappell, D., Powell-Smith, V. & Sims, J. 2005. *Building contract claims*. 4th ed. Oxford: Blackwell Publishing

Decker, B. 1989. How to communicate effectively. London: Kogan Page

Emmitt, S. & Gorse, C. 2003. *Construction communication. Oxford: Blackwell Publishing Ltd.*

König, G.M., Conradie, C.S., Geyer, N., Van der Westhuizen, E., Albertyn, S.E., De Bruyn, A.O., Valkhoff, J.A., Van Schalkwyk, M.L. 1993. Communication in Commerce N4. Johannesburg: Lexicon Publishers.

Loots, P.C. 1985. Engineering and construction Law. Cape Town Wetton Johannesburg: Juta & Co. Ltd.

Malherbe, G. de C. & Lipshitz, M. 1978. *Malherbe & Lipshitz on building contracts.* Pretoria: National Development Fund for the Building Industry.

Schannell, J. 1993. *Spreuke van Langenhoven*. 6th edition. Cape Town: Tafelberg

Scott, W.P. 1984. Communication for professional engineers. London: Telford.

Sillars, S. 1994. Success in communication. London: John Murray (Publishers) Ltd.

University of the Free State (UFS), Department of Quantity Surveying and Construction Management, 2006. Survey on procurement, communication and dispute resolution. Bloemfontein: University of the Free State.

University of the Free State (UFS), Department of Quantity Surveying and Construction Management, 2007. Survey on the use of project communication in avoiding disputes (Loch Logan Waterfront Mall project). Bloemfontein: UFS

Verster, J.J.P. 2006. Managing cost, contracts, communication and claims: A Quantity Surveying perspective on future opportunities. In: *CD Rom Proceedings of 1st ICEC & IPMA Global Congress on Project Management, 5th World congress on Cost Engineering, Project Management and Quantity Surveying.* Ljubljana, Slovenia, 23-26 April