

# An investigation of the impact of cross-cultural communication on the management of construction projects in Samoa

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Received 5 June 2008; accepted 14 January 2009

Communication problems have emerged as one of the most significant contemporary challenges facing construction project managers in an increasingly international construction market. However, little research has investigated the impact of cross-cultural communication (CCC) on management systems in this context. The key problems of CCC and their impact for construction project management systems in Samoa are investigated via a questionnaire survey of 41 project managers to solicit their views and experiences concerning the impact of human and cultural influences on project management and CCC evaluation processes in Samoa. Also provided are the results of a series of interviews with 32 practitioners and key stakeholders concerning the key barriers to effective communication, and suggested strategies and proactive measures for improving the CCC in Samoa. The findings highlight the need for cultural sensitivity when designing an inter-organizational communication strategy for the management of international projects. An organization also needs to have a global perspective if it is involved in the international construction market, and be willing to modify communication strategies that are appropriate within the context of host cultures. A strong link is established between changes in perspectives as a result of experiences and the impact of CCC on project management systems.

*Keywords:* Communication, culture, international project, project management, Samoa.

## Introduction

Developing effective strategies for the management of international construction projects requires knowledge and expertise that is technically, socially, politically, economically and culturally relevant (Fellows *et al.*, 2002). The relationship between the elements that make up the processes associated with international construction management depends on client requirements and the chosen procurement approach for project delivery, emphasizing the importance of the use of appropriate systems and organization structures (Mawhinney, 2001). The procurement of large projects overseas utilizing resources from different countries requires a high degree of coordination and effective communication (Langford and Rowland, 1995). Communication in the international environment is

further complicated by the differences in languages and cultures involved. If the communication processes and language is inaccurate, or misinterpreted, the relevancy, adequacy and effectiveness of that communication may be compromised. This in turn impacts on the credibility and integrity of the management and success of the project. Effective communication is necessary because it is the ultimate means by which behaviour is modified, change is effected, knowledge is acquired and shared, and goals are achieved (Howes and Tah, 2003). According to Loosemore and Al-Muslmani (1999), communication problems will emerge as one of the most significant contemporary challenges facing construction project managers in an increasingly international construction market. Dieckmann (1996) also points out that communication is regarded as one of the most neglected parts of international operations, and lack of communication has been cited as the biggest major reason for the failure of projects to meet their expectations (Pardu, 1996). However, with very few

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exceptions (e.g. Loosemore and Al-Muslmani's (1999) study of the Persian Gulf), very little is known of the impact of cross-cultural communication (CCC) on the management of construction projects.

The key principles and issues of human and cultural influences on international construction project management and CCC management processes are investigated in this research. This involves investigating the impact of CCC on construction project management systems in Samoa. In summary, there are four main objectives. They are:

- (1) To identify and define issues of human and cultural factors in international construction project management.
- (2) To investigate the factors influencing the CCC on management systems in Samoan construction projects.
- (3) To identify the key barriers to effective communication, and strategies and proactive measures for improving the CCC processes for construction project management in Samoa.
- (4) To make recommendations on the impact of human and cultural factors in the CCC process.

To achieve these aims, a sequential explanatory mixed methods approach is used (Figure 1), including a postal questionnaire survey and qualitative interviews.

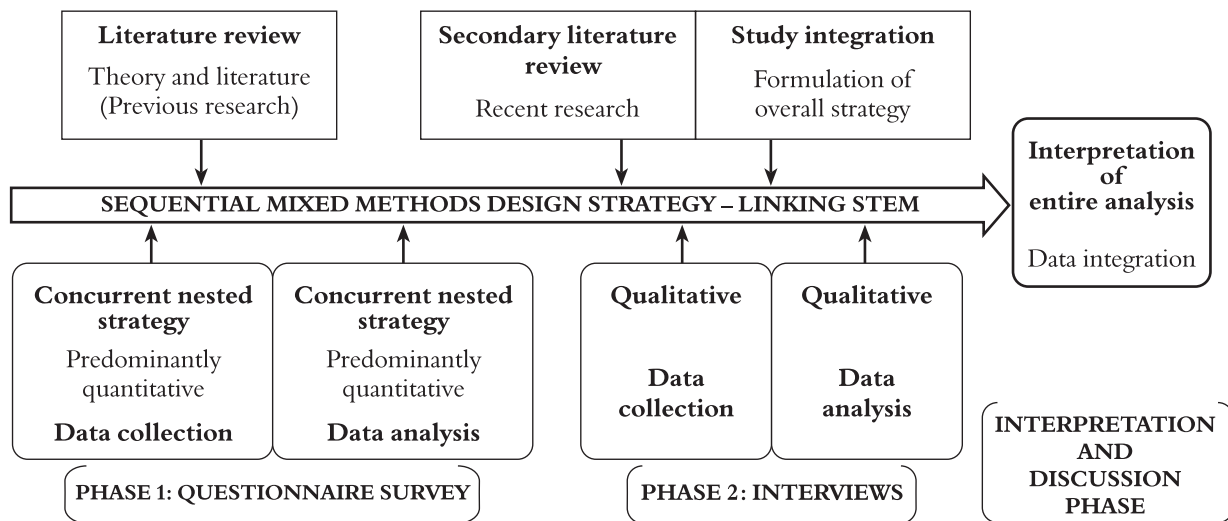
**Literature review**

Global operations increase the cultural diversity of an organization's workforce and the complexity of the social environment within which the organization

operates. Parker (1996) indicates that as global organizations become structurally flatter, more interactive, increasingly knowledge based, geographically scattered and more culturally diverse, traditional methods of communication will not be appropriate. As a result, the internationalization of construction companies has presented organizations with important challenges; one challenge for international managers is to manage cultural diversity effectively.

The international business domain has been a step ahead in terms of managing cultural communication or international business, with important contributions by Trompenaars and Hampden-Turner (1998), Gesterland (1996), Choi and Kelemen (1995) and Joynt and Warner (1996) for example. These show that differences in customs, behaviours and values result in problems that can best be managed through effective CCC and interaction. For construction work, Harris and Moran (1981) argue that project managers need to think globally and act locally. Cross-cultural *faux pas* result when one fails to recognize that persons of other cultural backgrounds have different goals, customs, thought patterns and values from one's own.

Contemporary leaders or managers are challenged to create new management systems and organizations that may better suit the present business environment. An important aspect is that the more one knows about others, the more accurately one can predict their behaviour (Honeycutt *et al.*, 1983). Special problems arise when different cultures are involved. In high-context cultures, such as India and Samoa, marked behavioural changes occur depending on where people are working and in whose company (e.g. Kumar and Sankaran, 2006). In general, managers are aware of cultural differences, with CCC and ethical difference



**Figure 1** Sequential explanatory procedures—mixed method strategy

altering not only their image of their role but their managerial style and activities. According to Harris and Moran (2000), when abroad in a host culture, managers with a culturally sensitive management perspective may seek to integrate into the new environment while advancing the corporate good through respect of local heritage and custom. The literature (for example, Harris and Moran, 2000) suggests that a list of key leadership factors can be compiled underpinning excellence in leadership and excellence in human and international affairs. This may be incorporated into the development of a job profile for global managers (Gudykunst, 1991). These ideas reoccur in the literature, and are regarded and accepted as useful managerial attributes. They include cosmopolitanism, intercultural communication, cultural sensitivity, acculturation, cultural management influences, effective intercultural performance, changing international business, cultural synergy, work culture and world culture.

A review of literature in the disciplines, including inter-cultural studies, social psychology, international business management, business ethics, international project management, international human resource management and international construction management, suggests that most studies look at problems associated with communication within a cross-cultural environment. However, there is a dearth of research investigating the impact of CCC on management systems for construction projects. There is also lack of research investigating the impact of CCC issues in small island nations such as Samoa. Only one study (Loosemore and Al-Muslmani, 1999) has approached this—investigating communication problems associated with the cultural diversity of UK and Persian Gulf nationals on international construction projects. Several studies have touched on issues associated with CCC and management, with some issues occurring very frequently with much detail, while others appear quite sporadically with little information. In addition, no research has formulated a conceptual framework to evaluate the context of CCC within a project environment. With the exception of Thorne and Saunders (2002), studies have used independent cultural models developed by cross-cultural theorists (for example, Hofstede, 1980; Trompenaars, 1993) to define central differences in cultures. Thorne and Saunders' (2002) study on socio-cultural embeddedness of individuals' cross-cultural ethical reasoning in organizations, integrated the two models by Hofstede and Trompenaars to formulate a framework useful for cross-cultural project management. Neuliep (2000) argues that communication is contextual in that it has a cultural context, a micro-cultural context, an environmental context, a socio-relational context and a perceptual

context. Howes and Tah (2003) also offer a conceptualization of an international construction organization. This involves considerations grouped under five main headings, namely: clients, suppliers, physical environment, socio-economic-political and the project unit.

## Methods and data collection

Sequential explanatory mixed methods were used to obtain statistical, quantitative results from a broad sample, followed with interviews to probe or explore the results in more depth. These methods are considered suitable for two reasons. First, the questionnaire survey (Phase 1) helps to identify the general cultural differences affecting the communication process in international projects in Samoa. It also helps to identify appropriate respondents for a more detailed investigation of the CCC. To achieve this, a few demographic questions were asked in the survey questionnaire to determine the experience of the respondents in a cross-cultural environment as well as in the Samoan construction industry. Only relevant practitioners with rich experience were invited to participate in the Phase 2 interviews to provide penetrating insights of CCC in Samoan construction projects, and which proved to be highly valuable in this empirical inquiry.

The first phase (Phase 1) involved administering a postal questionnaire survey with predominantly quantitative questions to address the impact of human and cultural influences on project management and CCC evaluation processes, experienced by expatriates and local managers (Appendix). The questionnaire questions, which concern the skills that are required to manage everyday situations in a new cultural context, were loosely based on Furnham and Bochner (1982). Respondents were asked to rate responses on five-point scales (ordinal level of measurement) developed for various sojourner groups, which have consistently proved to be reliable and valid (Ward and Kennedy, 1996).

After piloting, questionnaires comprising both standardized measures of checklists of predetermined items and critical incident questions were mailed to 90 selected project managers in Samoa for completion in mid-March 2001. The selection and identification of participants was important. These concentrated on personnel from international donor agencies such as the World Bank, European Economic Union and from governments such as New Zealand, Australia and Japan. Selection of appropriate respondents was conducted with the assistance of AusAID, the New

Zealand High Commission in Samoa, Japan International Co-operation Agency (JICA) representatives and Samoan government personnel. Random sampling was adopted and aimed at encompassing a wide range of experience and project size. To ensure consistent and authentic data collection the research sample was limited to those with experience in working in Samoa. This ensured that the sample population experienced working in the same environment in relation to social, political and economic impact. The researcher established cooperation with a number of organizations and agencies such as AusAID, JICA, government departments and organizations and private enterprises to ensure an adequate number of satisfactory responses. The purpose of the research was explained in a letter requesting voluntary participation, which accompanied the questionnaire. Telephone calls, e-mails and personal contacts were used to follow up the survey form.

From the selected sample of 90, 41 (46%) responses were received of which 38 (40%) were deemed usable. This response rate of 40% is quite high compared to other unsolicited mail surveys reported in the literature where a 30% rate is considered reasonable (Sekaran, 2000, p.250). The analysis of data in this phase involved the use of both descriptive and inferential statistics, and employs both the Kruskal–Wallis and the Mann–Whitney statistical tests. The SPSS 11.5 (Statistical Package for Social Science) software program was used to facilitate data analysis.

In the second phase (Phase 2), qualitative interviews were conducted to probe significant themes and results in Phase 1 by explaining and exploring aspects of the CCC process focusing on construction project managers and supervisors working in Samoa. The selection of the sample of interviewees was integral to the rigorous process that is essential for qualitative data collection that supports the rationale behind the topic being addressed (Strauss and Corbin, 1990). This was done purposefully, with the selection of key construction industry participants who are considered 'information rich' who could provide the most useful insights into cross-cultural communication practices (Patten, 1987). Construction industry respondents in Phase 1 were targeted as the core group, but as with the nature of international projects, not all were available for interviews as some, particularly overseas personnel, have moved on after project completion. Four pilot interviews were carried out targeting Samoan, Australian, Japanese and American managers, all with years of experience in the construction industry in Samoa, with the aim of verifying the content, structure and language used in the main questions and the related prompts, hence gaining a measure of its

reliability. A total of 32 construction industry practitioners and key stakeholders (project managers, consultants, contractors, construction supervisors, technical advisers, planners and local counterparts) with a diverse range of experience were interviewed. Most of the interviewees were engineers (70%). The sample group comprised of Samoan (34%), Australian (22%), New Zealander (22%), Japanese (13%) and other expatriates including American, Zimbabwean and British (9%).

An interview schedule was used which provided a structure for the interviewer, while allowing the respondent to raise, and talk at length, about issues and experiences they perceived to be of importance. This approach also allowed the interviewer to ask other related questions to follow up some of the answers given by the interviewees. Permission was asked and was granted for each participant to be recorded. The average length of interviews was over one hour. The interviews were transcribed with the salient and relevant points extracted from the data (data reduction) resulting in a reasonably condensed text to be organized and analysed. In this phase of the study, five culturally different groups were identified: Australians, Samoans, New Zealanders and Japanese, with Other Expatriates consisting of practitioners from other nations making up the fifth group.

Since the central aim was to investigate the impact of CCC on construction project management, a correlational study (non-causal) that delineates the key factors that are associated with this phenomenon is preferred over a causal (cause–effect relationship) study. The analysis of qualitative data in this phase was facilitated by the use of the NUD\*IST 6 (Non-numerical Unstructured Data Indexing Searching and Theorizing) program which manages and codes text by means of a document system and a node system. Content analysis was used to establish the pattern of participation among the practitioners involved, and the extent or emphasis placed by each participant and group (nationality) on each concept or factor (as reflected in the amount of information provided and the frequency of occurrences within the documents). Content analysis is a quantitatively oriented technique by which standardized measurements are applied to metrically defined units and these are used to characterize and compare documents (Denzin and Lincoln, 2000). The question of reliability and validity played a policing role throughout the whole process in order to ensure that all the elements of the design amount to what is being investigated; and that the most appropriate methods, instruments, techniques and procedures have been selected and implemented.

## Data analysis and results

### Phase 1—questionnaire survey

In general, the questionnaire opinion survey of inter-cultural communication in Samoa found beliefs to be in agreement with the literature. Virtually all those taking part in the survey agree that communication is vital; their experiences are positive for all the questions asked. Some marked differences were found between the different groups involved, which supports the central issue that cultural differences affect communication and impact on international project management systems. As far as beliefs are concerned, the Samoans seem to be more favourable to meetings and planning for improved communication, with Australians using a more responsive approach and the Other Expatriates being less flexible. In terms of their experiences, the Samoans claimed to have suffered from a rigid adherence to cultural practice, with less flexible, clear and ongoing communication but more planning for communication. The Other Expatriates, on the other hand, recorded awareness of national culture and clear, flexible, communications among their highest achievements (Australians had clear and flexible communications high on their list too). The Samoans also scored many of the barriers to communication higher than the other groups.

The results on personal beliefs ranged from 4.95 and 3.47 on a five-point scale indicating a general agreement, offering supporting evidence for the importance of communication in international projects. The top five ranked statements on personal beliefs are A1 Communication is vital; A11 Project managers must have excellent communication skills; A4 Culturally sensitive and appropriate communication is necessary; A5 Two-way communication must be encouraged; and A14 Understanding and appreciating the different cultures involved in a project is vital. These provided further evidence on the importance of appropriate communication in dealing with cultural differences. The questionnaire results highlighted the gap between personal beliefs and what is actually practised which is in congruence with the literature and supports the key issue that cultural differences affect the communication process in international projects in Samoa. The realization of barriers to communication and the application of appropriate strategies to deal with them have been noted from the results as crucial to communication management in international projects.

The critical incidences raised a number of issues extending the quantitative data which include the values and attitudes of project managers and various stakeholders, the extent of involvement of locals, prevailing standards and codes, hard and soft skills of

practitioners, selection and recruitment of personnel, political influence, cultural beliefs, modes of communication and communication barriers and strategies. These issues and factors influence the communication process and impact on international project management. These factors helped shape the interview phase next.

### Phase 2—interviews

The findings from the qualitative analysis process are categorized under one core category and an accompanying core result, along with five key categories and five key results. A number of sub-categories emanated from the dataset that provided further evidence to support the adopted analysis framework. Furthermore, the results from the content analysis highlight the frequency and total information under each category and sub-category, offering collaborating evidence on its validity. These are integrated, interpreted and discussed in detail together with the results of Phase 1.

The findings for the core category revealed that most of the impacts of CCC on management systems were negative. The impact of CCC on the management of risks recorded the highest frequency (23) followed by planning (22), quality (16), controlling (13) and reporting (6). The findings in Phase 2 provided evidence to support 13 factors influencing the context of CCC with practitioners' values, attitudes, beliefs, expectations and aspirations recording the highest frequency (64) followed by political (47), local industry and business practices, standards and regulations (33), cultural (27), practitioners hard and soft skills (22), nature and type of project (21), operational and strategic focus of donor, home, host, management organizations (14), physical environment characteristics (9), economical (8), technology (8), social (7), client requirements (5) and legal (4). These findings support the central issue that cultural differences affect the context of communication in international project management.

The barriers to effective cross-cultural communication have direct implications for the achievement of successful project outcomes. Identifying factors that impinge on effective communication are integral to the management process necessary for success in an international project environment. Table 1 tabulates the ranked summary of the content analysis for the barriers to effective CCC. The results show poor work ethics, culture and practices to be ranked number one with a frequency of 57 and a total of 3628, followed by political and personal agendas with a frequency of 27 and a total of 1676. Other top ranked barriers include concept of time (26), and poor standards, quality, health and safety (23). The lowest ranked barrier is

**Table 1** Barriers to effective communication—summary of content analysis

Rank	Barriers	Frequency	Total	Cumulative total
1	Poor work ethics, culture and practices	57	3628	3628
2	Political and personal agendas	27	1676	5304
3	Cultural beliefs and practices	27	1411	6715
4	Concept of time	26	1383	8098
5	Poor standards, quality, and health and safety	23	1207	9305
6	Top-down bureaucracy and bureaucratic red tape	20	1187	10492
7	Lack of technical competence	24	1054	11546
8	Lack of resources	19	1034	12580
9	Lack of flexibility and sustainability	18	967	13547
10	Lack of trust and confidence	15	858	14405
11	Ethnocentrism	14	839	15244
12	Land acquisition issues	12	663	15907
13	Lack of appropriate skills and training	13	570	16477
14	Language	15	552	17029
15	Lack of support and commitment	7	355	17384
16	Inappropriately channelled assistance	5	285	17669
17	Project ownership issues	4	276	17945
18	Lack of proper records, systems and policies	6	254	18199
19	Lack of planning, coordination and integration	6	222	18421
20	Change in work practices and culture	3	176	18597
21	Public holidays	5	145	18742
22	Lack of incentives and low pay	2	131	18873
23	Lack of competition	3	126	18999
24	Staff turnover	2	123	19122
25	Colonial mindset	2	108	19230
26	Differences in personalities	3	100	19330

differences in personalities, with a frequency of 3 and a total of 100.

In addition, choosing the most appropriate strategy is integral to successful communication. This has direct implications for the delivery of successful project outcomes and for establishing and harnessing relationships necessary for international operations. Table 2 summarizes the results of the content analysis for strategies for CCC, ranking them in order of highest frequency and total amount of information provided. This shows local liaison to have the highest ranking, with a frequency of 30 and total information of 1214. Other top strategies elicited by the interviewees include meetings and discussion forums (24), situational approach involving different modes of communication (18), thorough selection, recruiting and training (14) and evaluative and informative approach (12). The strategy with the least frequency and total information is incremental changes, recording a frequency of 1 and total information 14.

Practical proactive measures are products of experience, and this has direct implications for the management processes necessary for successful international project implementation which are facilitated by effective communication, in anticipation of future assignments. Table 3 summarizes the results of the content

analysis for the proactive measures to improve communication. This shows skills upgrading and capacity building to have the highest ranking, with a frequency of 22 and total information of 860. Culturally sensitive and localized approach is ranked second, recording a frequency of 19 and a total of 836, and followed by promote ownership of projects (15), inter-industry collaboration and integration (11), and educational and awareness programmes (11). Ranked 26 recording the least frequency (1) and total (36) is set reasonable targets.

In general, the barriers identified support the notion that cultural differences affect communication. The strategies and proactive measures identified offer support for a culturally appropriate communication management process that incorporates the cultural strategy, the business strategy and the human resources strategy. The findings for the changes in perspectives as a result of experience show how practitioners' personal reflections can facilitate and enhance the communication process. The most significant findings for strategies include the use of local liaison; meetings and discussion forums; situational approach involving different modes; thorough selection, recruiting and training; evaluative and informative approach; reinforce procedures and follow-up; respect and equality; and constant supervision. The

**Table 2** Strategies for cross-cultural communication—summary of content analysis

Rank	Strategies	Frequency	Total
1	Local liaison	30	1214
2	Meetings and discussion forums	24	895
3	Situational approach involving different modes of communication	18	844
4	Thorough selection, recruiting and training	14	751
5	Evaluative and informative approach	12	626
6	Reinforce procedures and follow-up	14	548
7	Respect and equality	12	547
8	Constant supervision	12	540
9	Feedback, open two-way communication	17	510
10	Adaptability, flexibility and continuous improvement	13	507
11	Networking and build relationship	15	499
12	Consultative approach	11	494
13	Comprehensive communication plan	14	471
14	Commitment, support and trust	11	414
15	Timely reports	5	332
16	Be proactive and improvise	7	260
17	Mentoring and coached approach	6	246
18	Initiation programme	4	159
19	Humour and diplomatic approach	4	60
20	Balanced and manageable teams	2	55
21	Incremental changes	1	14
	TOTAL	246	9986

**Table 3** Proactive measures to improve cross-cultural communication—summary of content analysis

Rank	Proactive measures	Frequency	Total	Cumulative total
1	Skills upgrading and capacity building	22	860	860
2	Culturally sensitive and localized approach	19	836	1696
3	Promote ownership of projects	15	769	2465
4	Inter-industry collaboration, integration ...	11	524	2989
5	Educational and awareness programme	11	520	3509
6	Cultural training and initiation	11	467	3976
7	Be tolerant and understanding	11	382	4358
8	Change in work culture, ethics and practices	7	345	4703
9	Industry support training and work experience	7	326	5029
10	Networking and build relationships	10	319	5348
11	Effective transfer of technology	7	284	5632
12	Practitioners with common vision	5	245	5877
13	Encourage and motivate	5	232	6109
14	Equity	4	184	6293
15	Exposure to technology, systems, methods ...	4	142	6435
16	Effective planning and keep good records	4	141	6576
17	Make informed decisions	3	122	6698
18	Sustainable measures	2	105	6803
19	Streamline and prioritize	3	104	6907
20	Do not expect to delegate	3	87	6994
21	Construction-specific research	2	83	7077
22	Use locals in positional authority	1	65	7142
23	Well-balanced management and work teams	2	55	7197
24	Increase resource pool	1	52	7249
25	Incremental changes	1	52	7301
26	Set reasonable targets	1	36	7337

findings indicate that risks have the highest impact, followed by planning, quality, controlling and reporting. Also established is a link between the influence of experience on perspectives of practitioners and the impact of CCC on project management systems.

## Discussion

### Barriers to CCC

The findings of the investigation of the factors influencing the context of CCC are consistent with Hofstede (1980) and Trompenaars (1993) in the identification of the dimensions that characterize national, business and management cultures. Samoa can be seen as an example of a high power-distance country with status differentials, deference to leaders and decision making highly centralized, tendency to view the organization as a family, loyalty, obedience expected and personalistic relations encouraged. In contrast, many of the expatriate managers and supervisors interviewed were from predominantly individualistic cultures that are objective, criteria-driven, have impersonal relations, individual performance and expertise is emphasized, and assertive behaviour and confrontation is expected. This result supports the claims of other researchers such as Schwartz (1994), Triandis (1994), Hampden-Turner and Trompenaars (1993), Hooper (2000) and Meleisea (2000). The frameworks presented by Kluckhohn and Strodtbeck (1961) and Harris and Moran (2000) suggest that local Samoan personnel would have a high degree of collectivism based on a traditional kinship system with a structured social base and this turned out to be the case.

The questionnaire and interview data first revealed that different and competing values, beliefs and expectations affect the flexibility and application of appropriate management strategies (Laroche, 2003; Schneider and Barsoux, 2003). For example, the attitudes and perspectives of 'time' by expatriates and Samoan practitioners are in agreement with the literature (Hall and Hall, 1990) in terms of 'monochronic' and 'polychronic' cultures. Cultures such as that of Samoa can be viewed as 'polychronic' where the technological qualities of business are superseded by relationships and time is very 'elastic' (Trompenaars, 1993). However, Japanese managers although classified by Hall and Hall as 'polychronic' are very clock conscious (Grove and Hallowell, 1999). The questionnaire and interview findings show that, as expected (and irrespective of factors influencing the context of communication and whether dominating or insignificant), success depends on how well practitioners

control the extent of influence and how they manage competing needs and associated risks (Schein, 1992; Fellows *et al.*, 2002; Haimes, 2003).

The findings also show that barriers to communication do impact greatly on project management systems, with the extent of this impact depending on the skills of practitioners involved, environmental factors and the management strategies employed—again is expected from the literature (Reich, 1991; MacDuffie, 1995; Adler, 1997; Redmond, 2000). Lack of communication according to Pardu (1996) has been cited as one of the biggest reasons for the failure of change projects to meet their expectations. The literature states that there is a contrast in approaches on management issues between collectivistic individuals (Samoans, Japanese) and some individualistic individuals (Australians, New Zealanders and other expatriates). The findings of the fieldwork in Samoa reinforce the literature on individualistic cultures which place high value on individuals speaking their minds and value accuracy over face-saving (Gudykunst, 1991; Waterman, 1984). Most of the expatriate managers and supervisors in Samoa reiterate the 'I' identity over the 'We' identity which has precedence in collectivistic cultures (Hofstede and Bond, 1984). In contrast, the Samoan and Japanese managers emphasize the needs of the group, the value of cooperation and the influence of the main in-groups such as family, church (Samoa) and work group (Japan). Status and role are greatly emphasized in collectivistic societies (Gudykunst, 1991) and this is reflected in Samoa's *matai* and kinship systems. The quantitative results and qualitative findings reflect the experiences of managers from individualistic or low context cultures (for example, Australia and New Zealand) with local personnel from a high-context cultural society like Samoa. The situations presented are potentially stressful which is consistent with the literature, and may impact on the success of international projects.

The relationship between adaptation, adjustment, effective management and communication in Samoa underpins successful implementation and sustainability of a project. The findings highlight how ethnocentric attitudes become a barrier to knowledge transfer and learning (Welch *et al.*, 1994). Culture shock, lack of effective communication skills and intercultural competency are aspects that managers have highlighted as factors which are detrimental to effective CCC. Stereotypical attitudes are prevalent in projects conducted in Samoa. Expatriate managers are viewed as authoritarian figures who are unquestionable by locals and who are viewed as holding all the 'answers' and 'solutions'. Samoan practitioners view this as a communication barrier and have called it 'colonial mindset'. Some expatriate managers display ethnocentric



attitudes towards local counterparts and the findings indicate that this may cause conflict and strained relationships between expatriate and Samoan managers. Stereotypes harm communications by isolating behavioural traits and limiting communication (see also Loosemore, 1997).

In regard to the strategies for effective CCC, the questionnaire and interview data revealed that in Samoa, there is an emphasis on face-to-face contact, which is consistent with the literature on traits associated with relationship-oriented cultures. The questionnaire and interview data converge with the literature which asserts the importance of kinesics, proxemics and para-language in communication in cross-cultural situations (Grove and Hallowell, 1994; Hoecklin, 1994; Harvey and Allard, 1995; Loosemore, 1997). In congruence with the literature (Redmond, 2000), the questionnaire and interview data highlighted the importance placed by practitioners on the value of 'competency' on intercultural communication. Project practitioners identified the need for specific competency skills to ensure effective communication within the project host culture. These competencies include clear and effective problem-solving strategies, awareness and sensitivity, understanding new language and local customs and collaboration. New competencies emerging from the findings include knowledge transfer from locals to expatriates in contrast to traditionally held perspectives of knowledge transfer only flowing from expatriate practitioners to locals.

### **Strategies and proactive measures for improving the CCC**

Conflict resolution in Samoa uses a variety of strategies which include a consultative approach, consensual process and mediation through village council, use of *matai* or person in positional authority, and established networks or contacts. The emphasis in Samoa on resolving conflicts is based on maintaining relationships and harmony as indicated by the questionnaire and interview data which confirms the literature findings on relationship-oriented cultures with collectivistic values. Expatriate managers in Samoa from deal-oriented cultures tend to value direct and frank language in business contexts while relationship-oriented Samoans favour a more indirect, subtle, roundabout style that avoids insulting others through body language or direct response. This accords with the literature (Thambain and Wilemon, 1974; Triandis, 1995; Gesterland, 1999). The findings are in congruence with literature in identifying methods for conflict resolution which include withdrawal, suppression, force, compromise and confrontation (Blake and Moulton, 1964; Thambain and Wilemon, 1974). The results revealed

that most expatriate managers (Australian, New Zealander and Other Expatriate) in Samoa advocate the direct, forceful approach while many Samoan managers view withdrawal and compromise as the most appropriate strategy within this 'high-context', relationship-focused culture. Hofstede (1991) found that avoidance of direct confrontation was a characteristic of a collectivistic culture, which is consistent with the findings.

Expatriate practitioners in Samoa in general viewed integration as the best form of interaction. Tung (1993) suggests that under integration the better elements of the host and home cultures are preserved, combined and expanded. The findings indicate how the degree of acculturation by expatriate practitioners greatly impacts on project management systems in Samoa, in the way they deal with issues and their selection of strategies to cope with barriers to effective communication. Questionnaire and interview data support the literature on key skills for effective leaders as espoused by Harris and Moran (2000) which include cultural sensitivity, effective intercultural performance, cultural synergy, intercultural communication, work culture and world culture. Expatriate managers working in Samoa have drawn on previous experience in the South Pacific to assist in adjusting and communicating effectively. Other supporting literature outlines competency skills required for effective communication and these include intercultural competence, social empathy, knowledge of the host culture, language competence, adaptation and social integration (Rogers and Kincaid, 1980; Leavitt and Bahrami, 1988; Redmond, 2000). The findings indicate that expatriate managers who attempted to increase competencies and skills such as those outlined, found that they were able to develop strong and effective communication channels with locals through the use of feedback, simplification of language, eliminating emotions and watching one's non-verbal cues which accords with the literature. Furthermore, the findings highlight how ethical dilemmas impact on project management systems and how they impact on relations between expatriate organizations and their host cultures which supports the literature (Grossman and Schoenfeldt, 2001). The interview findings highlight the ethical issues in relation to human resources, communication and its impact on management systems. The predominance of collectivistic values in Samoa is perceived by some expatriate practitioners as a hindrance which is in congruence with the literature.

The major implication for CCC is that it impacts on all management systems and therefore requires the application of appropriate management strategies that take into account the values, beliefs and attitudes of people involved, their skill level, the physical environment and resources, the industry and business

practices, and the political, social, cultural and economical influences. The questionnaire and interview data also support the literature on other aspects to take into account, including the type and nature of projects, the legal considerations, technology, and the strategic and operational focus of the donor, home, host and management organizations. The findings are consistent with the research literature (Steers, 1991; Yeung and Ready, 1995; Ghoshal and Bartlett, 1997) which highlights how cultural differences impact greatly on project planning and success. 'What's right' is closely aligned with cultural differences and how they are perceived. According to Brock and Thomas (1998), research into cultural influences has been largely overlooked. Using appropriate resources at the right time in the right place according to Brock and Thomas will result in organizational success. This perspective is consistent with the questionnaire and interview data which indicate that leadership styles and communication approaches have to take into account not only the project environment but also the acceptance of the wider local community.

The results highlight the need for project managers to think proactively and to apply culturally sensitive and appropriate strategies that involve locals to gain a sense of project 'ownership'. The questionnaire and interview data stress equally the need to upgrade skills and to ensure that projects include capacity building components so that knowledge and technology transfer is not just realized but also sustainable. This is supported by the literature that asserts projects are like 'building blocks' for organizational development, which ultimately translates to the national level (Cleland, 1999). Understanding the differences and working towards an agreed consensus allows effective communication to take place which is supported by the questionnaire and interview data. A 'learning to learn' approach (Senge, 1992) allows both parties to use diversity as a positive component in working relations.

The quantitative results and qualitative findings of this investigation into the impact of CCC on construction project management systems in Samoa found beliefs to be generally in agreement with the literature. Moreover, the findings highlight the link between the cultural strategy, the business strategy and the communication strategy and its impact on international project management. The findings identify a need for cultural sensitivity when designing an inter-organizational communication strategy for the management of international projects. The findings also indicate that an organization must have a global perspective and be willing to modify communication strategies that are appropriate within the context of host cultures—'Think globally, Act locally'.

The 13 factors identified as influencing the context of CCC supports the earlier literature on the need for broad considerations with a localized focus in the communication management process in international project management. Likewise, the identification of barriers to effective CCC, their predominantly negative impact, and the application of appropriate strategies to deal with cultural difference were evident in the questionnaire and interview findings which support the literature. The questionnaire and interview results revealed how proactive measures to improve CCC in Samoa, if implemented appropriately can facilitate the communication management process, which confirms findings in earlier research literature. Earlier research literature asserts how positive value shifts through personal reflections gained through experience affect communication and impact on international project management which is supported by the questionnaire and interview findings.

The questionnaire and interview data also highlight the need for the communication management process to be dynamic enough to accommodate environmental factors, stakeholders' needs, organizational objectives and personal expectations and aspirations, which is in congruence with the literature. The fieldwork in Samoa revealed how the impacts of CCC on project management systems were mostly negative. However, these negative impacts were combated through effective strategies and proactive measures. What is strongly evident in both the questionnaire and interview data and reinforced in the literature is the necessity for managers in cross-cultural situations to be open minded and adaptable to new cultural experiences.

The factors influencing the context of CCC were isolated from the literature. The findings provided evidence to validate all these factors as influencing the context of CCC. The research findings confirmed the literature on barriers, strategies, proactive measures and also extended these and provided some unique aspects that are specific to projects in Samoa. The findings also established a strong link between changes in perspectives as a result of experience and the impact of CCC on project management systems. This can be considered a major contribution to the communication management process and its impact on management systems.

## Conclusions

A number of key principles and issues of human and cultural influences on international construction project management and CCC management processes are addressed, which include:

- The impact of CCC on construction project management systems in Samoa.
- The importance of handling the CCC process appropriately to ensure positive project outcomes that take into account the needs of all stakeholders. This also stems from the factors influencing the context of communication which involves the identification of barriers to CCC, effective strategies to CCC, the impact of CCC on project management systems, proactive measures to improve CCC and influences of experience on perspectives.
- In terms of the practical implications, the findings highlight the importance for international managers to provide explanations for their actions to ensure that their decisions are not misconstrued (Greenberg, 1990).

Further studies would be conducted by means of a number of approaches:

- Use a larger, representative sample, across the industries, various organization sizes, similar number of nationality groups, involving project managers, supervisors and other stakeholders.
- The use of complementary analyses, such as the analysis of hypothesized relationships between a number of variables regarding barriers to effective communication, strategies for CCC, and proactive measures to improve cross-cultural communication; techniques such as factor analysis, and regression for determining the relationships between the factors; other methods for calculating the importance of the factors, such as AHP; and other reliability and validity tests for example CFA—for validity, discriminant and convergent validity; Cronbach's alpha—for reliability, etc.
- Similar representative studies can be also conducted in other small island nations, developing countries and rural communities in larger countries such as Australia.
- There is a need to focus on the training and education of future project managers so that they can be well prepared to manage in an increasingly global market; however, there has been very little research conducted on the effectiveness of this training.
- Further research would increase the generalizability of these findings and also help in synthesizing factors influencing the context of CCC and their impact on project management systems.

These proposed further studies would help the research and management community in international

construction management, cross-cultural management, international business management, international human resource management, strategic resource management, and international project management to develop a 'fuller picture' and a 'holistic account' of the impact of CCC on management systems. Equally important is the practical synthesizing of factors influencing the context of CCC as a result of these international studies.

In conclusion, it is very clear that international project management requires an effective process to ensure effective CCC between all stakeholders. The literature suggests that CCC impacts on project management systems in uncertain ways that require the application of appropriate strategies and skills to affect the communication process to ensure effective and positive outcomes. The sequential explanatory mixed methods used supports the literature and consolidates the foundation for further research into cross-cultural project environments. Findings and conclusions arising out of the fieldwork in Samoa pose a number of key areas for further research both nationally and regionally on the impact of cultural and human factors on international project management.

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## Appendix

### Questionnaire

#### Part A: What are your personal beliefs?

This section asks you to think about your feelings toward cross-cultural management and communication in particular. Please indicate your response by ticking the value that best describes what you think.

Item No.	In a cross-cultural project environment Your personal beliefs	Rate of agreement				
		1	2	3	4	5
1	Communication is vital					
2	A communication plan is necessary					
3	High levels of interpersonal and intrapersonal skills are needed					
4	Culturally sensitive and appropriate communication is necessary					
5	Two-way communication must be encouraged					
6	Meetings help overcome communication barriers and increase performance level					
7	Organizational culture and objectives dictate communication process					
8	National culture determines acceptable means of communication					
9	Communication helps achieve organizational and national objectives					
10	Project type and duration has a bearing on communication strategy and structure					
11	Project managers must have excellent communication skills					
12	Project funding influences tools and techniques of communication					
13	Project proponents and stakeholders need to communicate throughout the project					
14	Understanding and appreciating the different cultures involved in a project is vital					
15	Communication plans and strategies must be determined/established at the outset					
16	Communication plans must be reviewed regularly, and adjusted if need be					
17	Appropriate communication media for specific purposes/audiences are necessary					
18	Timing is vital for effective communication					
19	Clear communication is needed to help clarify the roles of project stakeholders					
20	Effective communication strategies are needed to demand openness and tolerance of cultural differences					
21	Effective communication strategies are needed to minimize potential disputes and misunderstandings					
22	Situations determine form and style of communication employed by project managers					
23	Communication is necessary for endorsement by the stakeholders					
24	Open communication is required to provide management with some control					
25	Communication gives project stakeholders the opportunity to comment or cast a vote					
26	Understanding the language(s) and practices of local culture enhances communication					
27	Effective communication strategies are needed to ensure successful technology transfer					

Rate of agreement: Strongly disagree (1), Disagree (2), Neither agree nor disagree (3), Agree (4), Strongly agree (5).

**Part B: What happened in the projects you were involved in?**

This section asks you to think about the extent the following items were evident or practised in the projects you were involved in. Please indicate your response by ticking which point on the scale best describes what happened.

Item No.	What happened in the projects you worked on?	To what extent rating				
		1	2	3	4	5
1	Effective communication					
2	A communication plan					
3	High levels personal/intrapersonal skilled management					
4	Culturally sensitive and appropriate communication					
5	Two-way communication					
6	Ongoing meetings between management/staff/stakeholders					
7	Well-established organizational culture and objectives					
8	Awareness of national culture					
9	Clear communication of organizational and national objectives					
10	Project managers with excellent communication skills					
11	Project funding influencing tools and techniques of communication					
12	Project type and duration influences communication strategy and structure					
13	Ongoing communication between project proponents and stakeholders					
14	Understanding and appreciation of cultural difference involved					
15	Determination/establishment of communication plans and strategies at the outset					
16	Regular review and adjustments of communication plans					
17	Selective use of communication media for specific purposes/audiences					
18	Effective timeliness					
19	Clear communication clarifying roles of stakeholders					
20	Effective communication reflecting openness and tolerance of cultural differences					
21	Communication strategies to help minimize potential disputes and misunderstandings					
22	Flexibility of form and style of communication					
23	Essential communication to stakeholders for endorsement					
24	Some control by management through open communication					
25	Clear communication giving stakeholders opportunity to comment/cast a vote					
26	Understanding of language(s) and cultural practices of local community					
27	Effective communication strategies ensuring successful technology transfer					

**To what extent rating: Never (1), Seldom (2), Sometimes (3), Mostly (4), Always (5).**

**Part C: Impact of communication barriers and Part D: Extent communication barriers were overcome**

This section asks you to think about the impact of communication barriers on your project and the extent they were overcome. Please indicate your response by ticking which points on the scale best describe what you experienced on your project.

1. Rate the impact					Communication barriers	2. Extent they were overcome		
1	2	3	4	5		1	2	3
					1. Political/community interference			
					2. Lack of/inappropriate technology			
					3. Varying perception/interpretation			
					4. Conflicting cultural values			
					5. Lack of support and commitment			
					6. Varying capacity and capability			
					7. Unclear channels of communication			
					8. Ineffective reporting system			
					9. Language difficulties			
					10. Interpersonal conflict			
					11. Age difference			
					12. Conflicting interest			
					13. Resisting change			
					14. Gender issues			
					15. Lack necessary skills			
					16. Varying concept of time			
					17. Organizational mishaps			
					18. Limited resources			
					19. Poor planning			
					20. Limited time			
					21. Lack of motivation			
					22. Information filtering			
					23. Religious issues			
					24. Poor listeners			
					25. Family commitments			
					26. Lack of confidence			
					27. Poor leadership			
					28. Concept of space			
					29. Personal preferences			
					30. Poor negotiation skills			
					31. Conflicting business/industry ethics			



1. Rate the impact					Communication barriers	2. Extent they were overcome		
1	2	3	4	5		1	2	3
					32. Stereotyping			
					33. Unclear objectives			
					34. Lack of concern			
					35. Lack of trust			
					Other(s):			
<b>Impact rating: 1=Insignificant, 2=Minor, 3=Moderate, 4=Major, 5=Catastrophic</b>						<b>Extent overcome rating: 1=Not at all, 2=Partially, 3=Totally</b>		

**Part E: Communication strategies**

This section asks you to think about communication strategies and the extent they were employed on your project. Please indicate by ticking which point on the scale most describes in your view the extent each strategy was employed in your project.

Item No.	Communication strategies	Extent they were employed rating				
		1	2	3	4	5
1	Comprehensive communication plan					
2	Clear communication channels					
3	Delegating responsibilities					
4	Adjusting and adapting					
5	Team meetings					
6	Cultural initiation					
7	Regular reviewing and reality checks					
8	Training					
9	Consultative approach					
10	Suggestion box					
11	Continuous improvement process					
12	Incremental changes					
13	Resource levelling					
14	Feedback processes					
15	Timely reports					
16	Dispute resolution					
17	Problem solving					
<b>Other(s):</b>		<b>Extent they were employed rating: 1=Never, 2=Seldom, 3=Sometimes, 4=Regularly, 5=Mandatory</b>				

**Section F**

This section asks you to think about any other cross-cultural communication issues that are worth mentioning. Please write a brief description of each of the issues in the space provided.

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**Section G**

The following asks you to think about the appropriateness and usefulness of this survey and research project. Please answer each of the questions by ticking the response which best describes how you feel about this survey.

Questions	Yes	No	Not sure	Some unclear
1. Do you think this is a useful exercise?				
2. Are the right questions being asked?				
3. Are the questions clear, well defined and easily understood?				
4. Is there anything important missing?				

If you answered 'Yes' to question 4 above, please explain

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**Section H**

*Demographic information*

1. What is your nationality? \_\_\_\_\_ (e.g. Australian, New Zealander, etc.)
2. What is your age? \_\_\_\_\_
3. What is your marital status? (please circle) Single/Living with partner/Married
4. What is your profession? \_\_\_\_\_ (e.g. Architect, Engineer, etc.)
5. What is your role for the project? \_\_\_\_\_ (e.g. Project Manager, Construction Engineer, etc.)

6. What type of project are you working on and its duration? \_\_\_\_\_
7. How long have you been employed in your organization? \_\_\_\_\_
8. How long have you been in your current position? \_\_\_\_\_
9. How many years have you worked in Samoa? \_\_\_\_\_
10. How many years have you worked on projects outside your home country other than Samoa?

Please state number of years and country \_\_\_\_\_

Would you like a copy of the research findings? Yes/No  
If 'Yes', please provide e-mail or postal address:

\_\_\_\_\_

***Thank you very much for your participation—your responses are very much appreciated***

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