

## **A Review on Constructional Culture, Structure and Commitment in Tamil Nadu Construction Projects**

**A. M. Naveen\* and P. Vidhya Priya**

*Department of Management Studies, Kongu Engineering College, Erode*

Received : 10 August 2017

---

### **Abstract**

The Tamil Nadu construction project has been characterized by poor performance. This review aims at analyzing the potential impact of the Tamil Nadu Construction culture, structure and commitment on the poor performance. If the culture is a major cause in the construction industry subpar performance, can the cultural influence be overridden to minimize construction project delays and cost overruns. The authors propose to identify the unique cultural issues, on the construction industry, and identify a potential solution to the problem. This paper reports the findings of data collected from construction projects in Tamil Nadu using structured interview method. A mismatch is found in both the construction structure, construction culture and construction commitment developed in the Tamil Nadu construction projects. The level of cultural influence was also found to be low in four dimensions - gender, age, educational qualification and position of the respondents in the project. The findings of the survey are discussed and explored with reference to Hofstede's culture concepts.

**Key words:** Tamil Nadu Construction Project, Culture, Performance

---

### **Introduction**

For many years, Tamil Nadu government backed reports have continued to deplore the poor performance of the construction industry with many projects failing to exceed or live up to the expectations of clients. The culture of the Tamil Nadu construction industry at the project level is associated with many attributes which has impact on project outcomes to a large extent. These attributes in turn lead to poor health and poor safety performance, and inferior quality.

The aim of this study therefore was to find how construction structure, construction culture and construction commitment has influence on construction projects in Tamil Nadu. The current

study was necessitated by the fact that despite such great advancement in project management theory and practice, construction projects in Tamil Nadu still fail to achieve their performance criterion in more than 50% of the cases. Consequently, new ways of trying to improve project performance have emerged, including an evaluation of cultural influence. Research has been conducted on culture by many authors (Ochieng and Price 2010; Ankrah 2007). However, these studies have tended to focus on single aspects of culture such as organizational culture or factors to improve team performance, and therefore do not give a full context of the role that culture plays during the project lifecycle. The current study explores therefore the other facet

---

\*Email : [researchscholarfromkongu@gmail.com](mailto:researchscholarfromkongu@gmail.com)

of culture and considers factors such as age, gender, race, ethnicity, educational background and organizational cultural background in Tamil Nadu which were identified as culture indicators (Kivrak, Ross and Arslan,2009; Cooper and Burns, 2010; Lee-keelley, Crossman and Cannings,2004). The current study therefore builds on studies which have been conducted before, and as highlighted by Ankrah (2007), culture has a wider scope. In addition, there is little by way of a systematic research to characterize the prevailing culture in Tamil Na- du's construction industry, and its influence on the perfor- mance in Tamil Nadu. Therefore, as observed by Ankrah (2007:75) "this provides a fascinating field of study of the industry within the context of culture".

### **1.1 Construction Culture – Job Vs. Character**

Job culture is found to be more preferable by the respondents in Tamil Nadu. According to Handy (1985), Job culture is best suited to groups, project teams or job forces which are formed for a specific purpose, which very much describes the job nature in Tamil Nadu. Individuals in the construction belong to own project team for each project and are highly likely to work with same team of people in each new project in Tamil Nadu.

In this case this fits well with the construction as the participants (respondents) generally work as a team, i.e. a project team. The respondents form a team to motivate team members of the project. Also, success is judged by results, in this instance the success of the project. Work place involvement within the team is also discussed. However, when the results were analyzed further it was found that the culture that was perceived to exist within the construction in Tamil Nadu was in fact a character culture.

Character culture is often found where flexibility or where technical expertise and

depth of specialization are more important than product innovation or product cost. In this study it is apparent that character culture is heavily reliant on procedures and formal authority, and has a long product life i.e. the department still exists when projects have finished. Respondents in the construction in Tamil Nadu would not expect to be abandoned after the completion of each project and see their future as being tied into the continued existence of the parent Construction Company rather than individual projects in Tamil Nadu. This paradox is not new but is one that many construction companies find difficult to cope with in terms of their organization and employee satisfaction in construction industry and needs to be recognized as an important issue that must be addressed, even if it cannot be optimally resolved.

The mismatch identified here can be seen to have an effect on issues such as Respondents age, gender, qualification, experience, position in the project. Such mismatches are not uncommon in Tamil Nadu which have the conflicting objectives of long term employment, service and systems, but which also need to be involved in relatively short term projects.

### **1.2. Construction Commitment – Cohesion, Lifetime and Calculative**

The same groups of respondents were questioned at the same time on the concept of commitment, using Meyer and Allen's (1997) cohesion, lifetime and calculative commitment scales. Both cohesion commitment (emotional attachment to the organization) and lifetime commitment (acceptance of the organization's set of values) were found to be a little stronger than calculative commitment (costs of leaving the organization outweigh the opportunity costs of staying) were measured and the responses obtained were arrayed on a psychometric response scale.

Percentage	Descriptio	Scale
80-100	Strongly	5
50-80	Agree	4
50	Neutral	3
20-50	Disagree	2
0-20	Strongly	1

**Table 1.** Likert Scale used for drafting the Questions

### 1.3. Construction Structure – Advancement Vs. Standardize

The type of the structuring prevalent in Tamil Nadu was explored using Van de Ven and Ferry’s (1980) organizational assessment. This is to relate to the nature of the job being undertaken by Construction Company in Tamil Nadu, with a view to identifying mismatches. Again, the same group of respondents were

questioned, together with further questioning, by means of sub-questions, sent out to another group of respondents (here-in-after called Other Units), who had work place involvement with the respondents in the past six months. The aim of this was to explore the quality of relationships and depth of communication within the project team. According to the author the construction units undertake work at high levels of difficulty and variability adopted. It is termed as advancement group mode. Table 2 presents the hypothesized patterns with three design modes. An advancement group mode is aimed at creating a programme for handling jobs, problems or issues that have not been encountered before which require additional investigation for dealing with issues in the project.

Variance of Jobs, Problems, Issues encountered by subsystem in Tamil Nadu	Standardized Neutral Mode	Optional Personal Mode	Advancement Group Mode
According to Author, Salient dimensions of sub system are 1. Talent, ability and skill of the respondents at organization levels and positions	Low	Medium	High
Adjustment among team members	High	Medium	Low
Co-ordination among team members	High	Medium	Low
2. Dependence among Team members	High	Medium	High
3. Difference of opinion among Team Members	Low	Medium	High

**Table 2 :** Hypothesized patterns of Construction Company in Tamil Nadu

The characteristics mentioned in Table.2 seem to fit in with the organization’s mission very well. One of the major roles of the organization is to be part of the project team in a construction project, including being able to react to unforeseeable events

which occur during the project. Based on the facts and characteristics described above, advancement group mode is seen as being the most appropriate design mode for the construction companies in Tamil Nadu.

#### **1.4. Construction Cultural Value in Tamil Nadu**

A number of questions were asked by author to respondents related to the cultural values of all team members in the project. Respondents in the construction project rated personal time, challenges at work and freedom to adopt their own approach in the work-place as very important for their ideal job. As per the respondents, working in a successful company and the size of the organization is considered to be not so important or desirable. Respondents agreed that it is very important to have a good relationship with their direct superior. They should be consulted by their superiors in decision making, though it is found less important than the immediate work place relationships. According to author all respondents work together; each individual is engaged in various project teams. The author suggests having a good working relationship with the project team leads to better performance and result outcome of the project. The author found respondents do not often feel stress at work. Also, the majority of respondents disagree that a large corporation is a more desirable place to work than a small company and theory X is strongly rejected – these all match nicely with Hofstede, who suggested that these issues are to be found in an organization with a low masculinity index. The data collected by the author show that work place relationship with co-workers are rated with high priority as suggested by Hofstede. The majority of respondents agreed that formal procedures should be retained in order to ensure both personal and company objectives are met.

From the data collected by the author via the structured interview, the majority of respondents agree that personal relationships

are an important aspect in managing projects. One common statement obtained from the respondents is that they all find having a good personal relationship with their project team members helps to minimize the chance of conflicts during work. However, as noted earlier in this study, the degree of personal experience and knowledge of respondents in construction is found to be low. Also, the majority of respondents agree that personal relationships need to be sacrificed to ensure a successful project completion and to meet the organization's objectives. From the above the author suggests, work is work, and with reference to result, job culture is preferred by all in Tamil Nadu.

#### **Literature Review**

Any construction project is undertaken by individuals who have different cultures and background (Loosemore and Lee, 2002). The difference in backgrounds such as age, gender, experience, position in the project has some kind of impact on the project outcomes. The team members in the construction projects therefore need to be investigated to ensure that though teams are made up of people with different views, they can still work together to achieve one common goal, which is to deliver a successful project. According to Kivrah et.al, (2009) cultural differences have been found to have an impact on construction projects, either a positive or negative manner at both the state level, national level and international level. What is critical is project leaders in construction companies need to be aware of the role that different backgrounds could have on project performance and outcomes.

According to Shahl et al. (2010:442) culture is defined as “values, beliefs and systems of meaning that are shared among a group of people and provide a guide for their interpretation of various aspects of life and the world around them”. In the construction industry, interpretation of situations and

certain scenarios play a critical role because not everything is black and white; people use their experiences or competencies to make an interpretation of a situation in order to provide suitable solutions for that particular problem. A question arises then that if according to the definition given above the interpretation of various aspects of life is affected by a cultural value or belief; to what extent does this protrude into the work environment, in this case, construction projects during decision-making? According to Stare (2011) decision-making, thinking, feeling, response to opportunities and threats is affected by culture. Even the choice made about a person who will be executing a particular task is also affected, and this ultimately affects performance and decision making.

Culture also emerges as a result of a society's need of answer to problems that are common to all groups (Hofstede, 1991) and determines who talks to whom about what and how the message is encoded from one party to the next (Loosemore and Lee, 2002). In the construction industry this encoding of messages could be detrimental to the project if vital information is not communicated to the relevant people.

According to Barthorpe, Duncan and Miller (2000) culture is shared, learned, symbolic and tradition; it shapes behavior and can change over time. It is also argued that culture is hard to change (Lee-Keelley and Sankey, 2008). In Table 3, each culture's characteristics are described to illustrate its nature.

### Objective of the study

The objectives of the review will therefore to establish:

1. The existing body of knowledge on Tamil Nadu organization culture and the construction industry in Tamil Nadu.

Character-istics	Descriptions
Learned	Culture is not inherited or biological; it is acquired by learning and experience
Shared	People as member of a group, organization, or society share culture; it is not specific to single individuals
Trans-generational	Culture is cumulative, passed down from one generation to the next
Symbolic	Culture is based on the human capacity to symbolize or use one thing to represent another
Patterned	Culture has structure and is integrated; a change in one part will bring change in another
Adaptive	Culture is based on the human capacity to change or adapt, as opposed to the more genetically driven adaptive process of animals.

**Table 3:** Common Characteristics of Culture (Tone, 2005 citing Hodgetts and Luthans 2000)

2. The extent to which constructional culture, structure and commitment has influence on project in Tamil Nadu.
3. The relationship between cultural difference and construction performance in Tamil Nadu.
4. How organization can achieve project success by recognizing the role of cultural background on construction projects.

**Data and Methodology adopted**

The current study adopted structured interview method to collect data. The concept was to ensure questions were absolute to yield desired outcome. The interview with respondents was conducted in two phases. In first phase general information of respondents are collected. The main interview was conducted in the second phase of data collection. Respondents were requested to answer (reply) on a five-point Likert scale. Respondents were requested to rate to which they agree or disagree based on their ongoing project performance. Each of the scaling gives a percentage to show the weightage of each answer.

The main objective of this study is to determine how the constructional culture, structure and commitment have impact on construction project performance in Tamil Nadu. To achieve this objective, a structured interview was conducted with respondents by interviewing face-to-face. The indicators used as variables for interviewing the respondents are shown in Table.5. (Dimension of Team Performance)

Sl. No	Name of the Company	Address	Place
1	Priyadarshini Construction	No 3G/1, Kanagar Street, Tiruvottiyur, Chennai - 600019, Opposite Agathiyar Madam	Chennai
2	Dream House Construction	No 90/1, Bank Colony, Coonoor Road, Nondimedu	Nilgiris (Ooty)

**Table 4.** Companies visited

Dimension	Description
<b>Team Dynamics</b>	
Communication	The exchange of information (ideas, perception, feelings) in a verbal or non verbal way
Trust	The ability of everyone in a team to have confidence, firm belief, in the ability of someone
Integration	The combination of people of various cultures put together to become one team with one goal/ vision which in this case to deliver project successfully
Knowledge sharing	The exchange/sharing of information/ skill related to particular subject in this case construction engineering.

**Table 5.** Dimension of Team Performance

**Analysis and Interpretation**

**1 Demographic Information**

The impact of cultural factors identified by many researchers has been done in construction, project in Tamil Nadu by using Structured Interview Method. From the demographic information below it is understood that, factors like Respondents age, Respondents gender, Respondents qualification, Respondent experience, Respondent role (position) in the project (Foreman, Construction Manager, Engineer, Project Engineer, Project Manager,

Engineering Manager etc) are the critical cultural factors in project performance and outcomes.

The respondent’s age distribution is shown in Table 6. The findings show that almost 5% of the respondents were between the age of 18 and 24 years. This group also had the lowest responses. The low responses from the mentioned group could be that questions were asked mainly to engineers. Most 18 to 24 year olds would normally not be in that category of professionals who were requested to participate in the study. The majority of respondents constituting 50.0% of all respondents were between the age of 25 and 34 years. This finding was not surprising as most of the respondents were recruited from Tamil Nadu that had been found by the author. In addition, it could be because the respondents found the topic to be interesting and therefore were keen to respond to the questions. In terms of the gender profile, findings show that there were males (70%) and no females (30%) (Table 6.) Who took part in the study, which is in a way as a result of only few women being involved in construction projects in Tamil Nadu, and hence lack of interaction.

The Respondents were also required to tell their highest level of education, and these qualification distributions are shown in Table below. The Table shows that about 15.0% of the respondents had a Primary Education certificate or less than, and 10% of the respondents had Matric certificate with the majority, over 75.0% of junior and senior management in the construction industry having a qualification higher than Matric. Most of the respondents had Diploma qualification accounting for 30.0%, while only 15.0% of the respondents had an undergraduate qualification. The findings show that only 5% of the respondents had post graduate degree.

This group also had the lowest responses. The current study benefited from the unique feature of having respondents with such varying backgrounds and hence assuring the reliability of the study. ‘

In Table 6.below, the respondents’ experience in construction. 50 % of respondents are having Less than 5 years of experience. Between 6 and 10 years of experience accounted for 30. % followed by those having between 11 to 20 years of experience. This category accounted for 10.0%. Finally, respondents having more than 20 years of experience accounted for 10.00%.

In this study it is important to establish the position (role) of respondents in construction. The majority of the respondents were engineers accounting for 60.0% (Table 6), only 5.0% were project managers and construction managers respectively. The engineering managers in this category accounted least with 10.0% and 10% were foreman.

Dimension	Total No of Respondents	No of Responses according to dimension	Percentage of Responses
<b>1. Age Distribution of Respondents</b>			
a. 18 to 24		5	5%
b. 25 to 34		50	50%
c. 35 to 44		30	30%
d. 45 to 54		15	15%
Total	100	100	100%
<b>2. Respondents Gender</b>			
a. Male		70	70%
b. Female		30	30%
Total	100	100	100%
<b>3. Respondents Highest Qualification</b>			
a. Primary or Less		15	15%

Table 6 : continued

b. Matric		10	10%
c. Junior College ( Higher Secondary)		25	25%
d. Diploma		30	30%
e. Under Graduate		15	15%
f. Post Graduate		5	5%
Total	100	100	100
4. Respondents Experience in years			
a. Less than 5 years		50	50%
b. 6 to 10 years		30	30%
c. 11 to 20 years		10	10%
d. More than 20 years		10	10%
Total	100	100	100
5. Respondents Position (Role) in the project			
a. Foreman		10	10%
b. Engineer		60	60%
c. Construction Manager		5	5%
d. Project Manager		5	5%
e. Project Engineer		10	10%
f. Engineering Manager		10	10%
Total	100	100	100

**Table 6.** Demographic Information Collected from 100 Respondents

## 2 Team Performance

One of the elements evaluated as forming part of team performance was communication. The respondents were asked to rate their level of communication between all team members within the projects. Result presented in Table 3 show that 7% ‘agreed’ to easily communicating with all team members, 2% neither agreed nor

disagreed, and 1% ‘disagreed’ with the statement. When asked if all team members easily communicate with other team members regardless of cultural differences, only 4% of respondents ‘agreed’, 2% neither agreed nor disagreed, while 4% ‘disagreed’. For the statement “despite the difference in age among team members, communication is not hindered between us”, 7% of the respondents agreed that age is not a communication barrier within the project teams, and 2% are neutral, while 1% ‘disagreed’ with the statement. The respondent were also asked if they easily reach consensus on many issues on the project despite backgrounds, 6% ‘agreed’, 1% neither agreed nor disagreed, while 3% ‘disagreed’.

The weighted average ratings for this element in team dynamics showed that the respondents ‘neither agree nor disagree’ to all team members easily communicating with other team members regardless of cultural differences. Easily reaching a consensus was found to fall between the ‘neutral’ and ‘agree’ ratings. The weighted average rating for the respondents was more towards agreement that they easily communicate with all team members on the project and that age is not a communication barrier amongst the team members. The average rating of 2.518 for all the weighted average ratings shows that the average sentiment amongst the respondents was that communication was not an issue amongst the project team.

With regards to the ranking, the respondents ‘agree’ to easily communicating with all team members on the project, followed by age not being a factor in communication amongst the project team. Ranking of 2.73 in number 1 was respondents’ perception of, despite the difference in age among team members, communication as not hindered between them’. The number 2 ranking of 2.67 went to the

respondents' perception that he easily communicated with all team members on the project. The number 3 ranking of 2.47 went to the respondents' perception that they easily reach consensus on many issues on the project despite their different backgrounds. The number 4 ranking of 2.2 went to the respondents' perception that all project team members easily communicate with other team members on the project regardless of race, gender, age, or ethnicity meaning that this was the least preferred statement by the respondents.

### 2.1 Trust

Another element evaluated relative to team performance was trust. For the statement "due to our cultural differences, trust has been affected within the project team", the results in Table 3 show that 4% of the respondents agreed that cultural differences does affect trust amongst the project, 1% were neutral and 5% 'disagreed' with the statement. The respondents were also asked if organizational culture background differences affect trust within the project team, 3% of respondents agreed that organizational culture backgrounds affect trust within the team, 2% neither agreed nor disagreed, while 5% 'disagreed'.

The weighted average ratings show that the respondents are between 'disagree' and 'neutral' regarding cultural differences affecting trust within the project team. This was the same sentiment towards organizational culture's effect on trust. When looking at the overall average rating for all the weighted averages, this shows that the respondents lean more towards 'neutral' when it comes to the impact of cultural differences on trust amongst the project team.

The ranking on the other hand shows that the respondents feel strongly about culture differences not affecting trust amongst the

project team as this was their preferred statement of choice.

### 2.2 Knowledge sharing

Respondents were asked to rate the extent to which they share information with all project team without hindrance from gender differences. The results presented in Table 3 show that 8% of the respondents 'agree', 1% were neutral, while 2% 'disagreed' with the statement that they share information with all project members regardless of gender differences. The respondents were also asked to rate the extent to which they share information with all project team members without hindrance from age differences. Result presented in Table 3 shows that 7% of the respondents agreed that age does not hinder information sharing with other team members, 2% neither agreed nor disagreed, while 1% 'disagreed'. On the same point, respondents were asked to rate the extent to which they share information with all project team members without hindrance from differences in ethnicity. Table 3 results show that 6% of respondents agreed that differences in ethnicity does not hinder information sharing with other team members, and 2% were neutral, while 2% 'disagreed' with the statement. For the statement "all team members share their knowledge with other project members regardless of educational backgrounds and qualification", 5% of the respondents 'agreed', 2% neither agreed nor disagreed, while 3% 'disagreed' with the statement.

According to the weighted average ratings, respondents 'agree' to them sharing information with all project members despite gender, age and ethnic differences. With regards to 'all' team members sharing information with other team members regardless of gender, the respondents leaned more towards 'agree'.

The respondents were between ‘neutral’ and ‘agree’ with regards to knowledge sharing amongst team members regardless of qualification. The average sentiment regarding knowledge sharing amongst team members was that the respondents perceived this to not be affected by cultural differences.

The ranking showed the statement of choice by the respondents to be their sharing of information regardless of gender, followed by age and ethnicity at number 1, 2 and 3 respectively. The least statement of choice were with regards to ‘all’ team members sharing information regardless of gender and qualification, ranking at number 4 and 5 respectively.

### 2.3 Integration

Integration is also an element evaluated relative to team performance. The respondents were

asked if a good project team was formed in projects despite differences in backgrounds, and the results in Table 3 show that 6% of the respondents agreed to having a good project team despite the cultural differences, 3% were neutral, while 1% ‘disagreed’. When asked to rate the influence of cultural backgrounds differences on team integration, 3% of respondents agrees that cultural backgrounds difference affect the integration of the team, 2% neither agrees nor disagreed, while 5% respondents ‘disagreed’ with the statement.

At a weighted average rating 2.6, the respondents ‘agree’ to have formed a good project regardless of cultural differences. The ranking also shows this to be the preferred statement of choice as compared to cultural differences affecting team integration.

Dimension	Statement: According to my experience on Construction project , I state that	Total Sum of Responses	Mean Average	Ranking
Communication	I could easily communicate with all team members on the project	10	2.67	2
	All project team members easily communicate with other team members on the project regardless of race, gender, age	10	2.2	4
	Despite the difference in age among team members, communication is not hindered between us.	10	2.73	1
	We easily reach consensus on many issues on the project despite our different backgrounds	10	2.47	3
		<b>Avg</b>	<b>2.518</b>	
Trust	Due to our cultural differences, Trust has been affected within the project team.	10	2.13	1
	Due to our differences in organizational cultural background, Trust has been affected within the project team.	10	1.87	2
		Avg.	2	

Table 7 : continued

Knowledge Sharing	I could share information with all project members without hindrance from gender differences	10	2.87	1
	I could share information with all project members without hindrance from age differences	10	2.53	2
	I could share information with all project members without hindrance from differences ethnicity	10	2.47	3
	I could share my knowledge with other project members regardless of my gender.	10	2.27	4
	I could share my knowledge with other project members regardless of my qualification.	10	2.13	5
		<b>Avg</b>	<b>2.45</b>	
Integration	I could form a good project team despite difference in background	10	2.6	1
	Our cultural background difference have affected integration as a team	10	2.13	2
		<b>Avg</b>	<b>2.45</b>	

**Table 7.** Rating of Team Performance on Tamil Nadu Construction Projects

### Conclusion

The data collected by the structured interview carried out in Tamil Nadu reveals that statistically there is 'strong correlation between the construction culture, construction structure and construction commitment in Tamil Nadu'. It is clear that respondents focus more on the outcomes than on the process of the project. However, the findings will show that the affordability of developing an appropriate project culture is a major

concern of the respondents in construction projects. A wider review has to be carried out from researchers, which will be helpful to further validate the findings in Tamil Nadu. In addition, it would be beneficial to have more in- depth interviews in Tamil Nadu construction companies to further establish the nature of culture at the project level and its impacts on the project outcomes in Tamil Nadu.

## Reference

1. Asia Society (2013). Indian Society and Ways of Living. Retrieved on December 2, 2013 from URL: <http://asiasociety.org/countries/traditions/indian-society-and-ways-living>.
2. Belliappa, C. P. (2012), Lack of creativity in a land of great brains. *Deccan Herald*. Retrieved on October 4, 2013 from URL: <http://www.deccanherald.com/content/284938/lack-creativity-land-brains.html>
3. Gould, W. (2013), The India site, a brief history of corruption in India. Retrieved on February 20, 2013 from URL: <http://www.theindiasite.com/a-brief-history-of-corruption-in-india/>
4. Kashiwagi, D., Kashiwagi, J., Kashiwagi, A., Sullivan, K. (2012). Best Value Solution Designed in a Developing Country. *Journal for the Advancement of Performance Information & Value*, 4 (2), 223-239.
5. Kashiwagi, J. (2013). Entergy, New Orleans, Louisiana Case Study. *Best Value Standard*, Performance Based Studies Research Group, Tempe, AZ, KSM Inc., 2013.
6. Lines, B., Perrenoud, A., Sullivan, K.T. (2013). Optimizing Cost and Schedule Performance through Best Value Project Delivery: Application within a Design-Build Project. *Journal for Advancement of Performance Information and Value*, 5(1), 27-40.
7. Muatjetjeju, M; Mselle, P; Sullivan K; Kashiwagi, D. (2009). Is the Culture or an Unstable Procurement Model that Causes Nonperformance in Botswana Project Management? *Fifth International Conference on Construction in the 21<sup>st</sup> Century (CITC-V) "Collaboration & Integration in Engineering, Management, and Technology"*. May 20-22, 2009. Istanbul: Turkey.
8. Mukherjee, A (2005), Indian societal hierarchy, Indiapointweb network. Retrieved on March 13, 2013 from URL: <http://indiapoint.net/social-science/2005/02/19/indian-society-and-hierarchy/>
9. Parikh. T. (2013). The Roots of Growing Incidences of Rape in India. Retrieved on December 2, 2013 from URL: <http://the-generation.net/the-roots-of-the-growing-incidences-of-rape-in-india/>
10. Performance based studies research group (2013), Arizona state university, Retrieved on March 3, 2013 from URL: <http://pbsrg.com/project-case-studies/>
11. Sharma, J.K. (2010). *fundamentals of business statistics*, Dorling Kindersley (India) Pvt.ltd., Retrieved on March 6, 2013 from URL: <http://www.assocam.org/publications/genpub.php>.

**Appendix**

**(Questions)**

**DEMOGRAPHY**

**The structured interview questions on construction culture, construction structure and construction commitment in Tamil Nadu construction projects.**

The interview was conducted in two stages namely Phase 1 and Phase 2. Phase 1 is related to personal information about respondent and Phase 2 is collection of details about the performance of currently ongoing project performance.

Phase 1 *General Information of respondent*

**Phase 2. Questions on the currently ongoing project performance**

The following options are provided on the scale

Strongly Disagree (0to 30%)	1
Disagree	2
Neutral (50%)	3
Agree (50to80%)	4
Strongly agree (80to 100%)	5

Dimension	Statement: According to my experience on Construction project, I think	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		5	4	3	2	1
Gender	Colleagues with a different gender from me view project quality differently					
	Colleagues with a different gender from me view and treat cost implications differently					
	Colleagues with a different gender from me view time differently					
	Colleagues with a different gender from me view safety differently					
Age	Project members with different age group than me view quality differently					
	Project members with a different gender from me view and treat cost implications differently					
	Project members with a different gender from me view time differently					

**1. Cultural Backgrounds Influence on project**

<b>Dimension</b>	<b>Statement: According to my experience on Construction project, I state that</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Age	Project members with a different gender from me view safety differently					
Educational background	Project members who have a different educational background and qualification from me view project performance differently.					