

# **An Assessment of Key Performance Indicators Utilised in Measuring Multicultural Team Performance**

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## **Abstract**

As globalisation advances at an ever-increasing rate, there is a great need in the global construction industry for identifying a set of common indicators to be used by project leaders in measuring multicultural team performance at the project level. The focus of this research was to collect management perceptions of the key performance indicators currently utilised in the global construction industry in Kenya and UK. A literature search was employed to generate the initial set of perceived key performance indicators, which were administered to the construction industry via a survey using both quantitative and qualitative methodology. Correlations were performed for both the quantitative and qualitative indicators to determine which type of indicators is used most extensively. Further analysis displayed a substantial difference between project leaders in Kenya and the UK. In conclusion, it was found that the correlation between quantitative indicators and qualitative indicators proved to be inconclusive.

**Keywords:** Kenya, UK, global construction industry, key performance indicators, multicultural team.

## 1. Introduction

The construction industry has been widely castigated for its fragmented approach to project delivery and its failure to form effective integrated multicultural project teams. Ochieng (2008) established that in practice, there are three basic forms of multicultural construction project teams:

- i. A construction project team with individuals from different cultural backgrounds working in the same country. These are project teams which consist of expatriate individuals or team members from different communities that are culturally distinct.
- ii. Construction teams that are fundamentally or totally propagated in many countries but meet face-to-face.
- iii. Construction teams that repose of individuals in many countries, work together only through medias, and never meet each other. This “virtual construction project team” has no face-to-face or project review meetings.

Nonetheless, there is also lack of knowledge regarding team integration of multicultural project teams, thus the determinants, attributes, and variables are largely unknown. Recent attempts at team integration in the construction sector have been widely centered on improving project procurement and product delivery processes (Bernard *et al* 2003). It is essential to note that, in construction, integration is used to explicate the introduction of construction working practices, methods and behaviours that constitute a culture of efficacious and effective collaboration by project teams and contractors (SFC 2003 and Lennard *et al* 2002). The term “*integrated multicultural project teams*” has been used in this paper to designate a highly effectual collaborative project team capable of delivering a construction project. This paper investigates the extent to which senior managers in Kenya and the UK were able to integrate multicultural construction project teams. It examines the practices within multicultural construction project teams that lead to full team integration.

## 2. The impact of culture on multicultural project teams

Whilst there is a plethora of empirical work focusing on culture, the nature of national culture, team culture, project culture, corporate and organization culture (Ankrah and Langford 2005; Dainty *et al*, 2007; Hall, 1999; Hofstede, 2001; Trompenaars, 2001), the concept of multicultural team working remains largely unexplored. With the growth in globalisation, construction project managers increasingly need to work in culturally diverse project teams. The challenge, however, is that they bring different understandings and expectations regarding team dynamics and multicultural team working. In a construction project, the project team is new. It is brought together for the project and its participants are not chosen as project team players but by the lowest price tag. They are not the projects employees but leased from their home firm, which probably has other success criteria than the project in question. Since the project is new and the site is unbroken, nothing at all is as it was in the previous project. A second problem facing senior managers is that they need to act fast. In a

project environment there is no such thing as a second try. The culture of teamwork must be introduced from the very beginning and kept all the time. In addition, service and support must be introduced in order to gain confidence and the project's targets must be clearly communicated, particularly if the construction project is one where recurrent changes may be expected (Emitt and Gorse 2007). Essentially, construction projects and project participants are all different and the big challenge facing clients and senior managers, which a business manager is fortunate to be almost without, is the need for setting up a construction site team spirit almost immediately (Egan 2002).

Though there is plenty of knowledge on how to manage an international organisation, but this knowledge is not applicable to construction project teams. Global construction organisations have to deal with multicultural issues on a much wider and deeper level than any other sector. Because of the unique requirements of multicultural construction project teams, we need strategies suited to deal with the problems that practicing project leaders face in multicultural team integration, everyday situations. This study was designed to examine the practices within multicultural construction project teams that lead to full team integration, in UK and Kenya.

### **3. Aspiration of the construction industry**

As established in this research, construction operations are so complex and multidimensional that major heavy construction engineering projects in many developing countries are often performed as joint ventures with firms from developed nations. A good understanding of multi-cultural team working is therefore particularly beneficial to developing and developed countries. According to Clark and Ip (1999), trans-global economic developments offer an opportunity to introduce products utilising up-to-date knowledge in a cost-effective manner. In any construction project, it is essential for the senior managers to be cross-culturally competent. Multi-cultural team working calls for cultural understanding and sensitivity in terms of personnel management by the concerned clients. The specific cultural and behavioural issues include language, communication, and the understanding of cultural differences.

In the last ten years, there has been a growing research interest in soft issues like social and cultural factors, which affect people management on projects (Dainty *et al* 2007; Egan 1998). The interviews held in both Kenya and the UK revealed that cultural dynamics causes challenges in heavy construction engineering projects among other internal and external issues. In addition, cultures are very dynamic, which creates another challenge to clients and project managers within the construction industry. Addressing the poor performance of multi-cultural project teams remains an aspiration within the construction industry.

For effective management of multi-cultural project teams, there is a need to examine if cultural complexity can be effectively managed. Due to the demand of international construction projects involving multi-cultural project teams, there is a growing trend towards discussing cultural complexity more openly within the construction industry. This has been influenced by clients in both the developing and developed countries demanding for improved people management strategies. There is a need for increased research efforts in understanding influential factors that affect managing

cultural complexity in multi-cultural project teams. There is mounting evidence and opinion indicating that integrated team working is a primary key in efforts towards improving product delivery within the construction industry (Egan 2002). Given the uniqueness of culture to particular project teams, and its persistent influence in societies and organisations this study presents a balance between the experiences of project managers from a developed and developing country.

The construction industry has been under pressure to evolve into a sector that is constantly changing to fit the needs of the broader context in which the operations are executed. Attitudes towards working have changed dramatically in recent years and there is currently much more emphasis on multi-cultural team working. As construction organisations define more of their activities as projects, the demand for multi-cultural team working grows, and there is increasing interest in reforming the project delivery process. Based on this demand and the previously cited challenge of improving people management, this research has focussed on examining the factors influencing multi-cultural team working and has explored how team integration can be made effective for a multi-cultural project environment.

## **4. Methodology**

Eight well project-oriented organizations were selected in Kenya (4) and the UK (4) respectively. A semi-structured interview approach was employed to achieve the aims of the study. A total of twenty interviews were conducted in Kenya (10) and UK (10); each interview lasting approximately ninety minutes. The twenty participants were selected on the basis of their integration experience, with each having long-standing familiarity in managing multicultural construction project teams. All participants had a practical understanding of cross cultural issues in construction projects. All interviews were conducted by the first author and were tape rerecorded and transcribed verbatim accordingly. Data analysis was achieved through the use of qualitative analysis software package NUDIST NVivo™ and SPSS 13. During the analysis, broad themes and patterns were looked for, rather than narrow, precisely variables of qualitative research. Three hundred postal questionnaires were distributed to senior managers in Kenya and the UK and one hundred and thirty two were returned giving a response rate of forty-four percent. Careful consideration was given to how best to collect and analyse data covering possible differences in construction project management practice. A solution seemed to be to focus the research on ensuring diversity in the sample, in terms of construction engineering projects managed by subjects. Such diversity ensured that potential differences in practice could be identified and this facilitated the analysis of any influences on different projects that were researched.

## **5. Findings**

There was a consensus from both set of participants that in order for multicultural team integration to be successful, there should be:

- i. A clear identification of who does what and reporting lines with defined roles and responsibilities co-coordinating aspects of the design and the industrial construction process
- ii. Performance measurement and benchmarking of both the supply team member's performance in order to promote continuous improvement. The aim is to identify and resolve problems and to share best practice.
- iii. Arrangements for sharing efficiency gains so that all parties in the team benefit and incentives for everyone in the integrated team to work together to bring about innovation, and cost effective design solutions.
- iv. A shared risk register with risks allocated between managers and across the team, and
- v. Clear measurable targets, improving value for money in industrial quality, delivery times, and whole life costs that are agreed the client and organisations that make up the integrated team.

Several participants emphasized the importance of initiatives to sustain team spirit. It is notable that individuals working in a high-performing team usually have a good mix and balance of different personality types, which enable individuals to play to their natural strengths. Some of the participants highlighted that there have always ended up with a project that is on budget, on-time and good quality. Participants highlighted that some of the benefits of integration include: improved communication, greater awareness of opportunities, fewer disputes, improved performance, improved quality and greater certainty of outturn cost. For example, one of the participants in the UK noted that she had worked on a variety of projects whereby the teams had integrated and where some had not. This was mainly because of poor communication systems and lack of trust among project team members.

*“I had a situation whereby the main contractor didn't want to integrate with the sub-contractors mainly because of poor communication systems which were in place”*

In addition, individual attitudes towards each other and the project were found to play a key role on influencing the success of multicultural team integration. It was widely acknowledged that if you get a balance on risk, values, and teamwork then you have a good chance of implementing the strategy successfully. Other key factors that emerged include the need for the project leader must employ strategic management and co-ordination, devise and agree with the team shared goals and there has to be a strong incentive for members to help each other in achieving their goals. The need for client and senior managers to demonstrate a cultural balance of enthusiasm, experience, drive, organisation, and control must also be present. As stated by one of the participants in Kenya:

*“The underlying message which underpins them multi-cultural project team should be to try and enjoy the day to day activity on a project. This can be achieved through team building activities so as to create an environment, which is both focused and efficient in producing the project deliverables”.*

With regards to running efficient multicultural team integration, the participants identified a number of key factors which included: cross cultural communication, cross cultural trust, cross cultural collectivism and cross cultural empathy in project leadership. The results of the interviews indicated that the extent of integration is complex. Participant’s accounts of integration were related to their opinions about cultural complexity. Though opinions towards integration appeared to be similar between project leaders in Kenya and the UK, project leaders in UK appeared to cope much better with the ever-accelerating pace change in construction industry. Even though the dynamics and diversity of teams were found to be complex, participants in this study showed that there are many benefits to be derived from working with fully integrated teams. Participants in the UK showed that many clients now prefer to work alongside the contractor in the integrated teams. This enables them to share knowledge and resources easily and efficiently. Teams better integrated have the best balance of culture, skilled and semi skilled, experienced and inexperienced people. This means they share the same aim-a successful project! The discussion of results in this study shows that cultural differences on projects can do considerable damage to the organisation of heavy construction engineering projects. Irrespective of whether the project is international or not, participants demonstrated that cultural differences contribute to complexity on projects. To capitalise on efficiency in the multicultural project team, it is critical for the client and project manager to establish a clear, effective and robust process at an early stage of the project in order to identify and resolve obstacles clearly and swiftly before they develop into major problems.

## **5.1 Effective formation of multicultural team**

Participants’ views on effective formation of a multi-cultural team are given in Figure 1. In this question, participants were asked to indicate how multi-cultural teams could successfully be formed. The findings are presented in the following sequence: communication, project manager leadership, client leadership, people selection, and risk. The factor regarded as most important is “communication” with a percentage score of thirty-five.

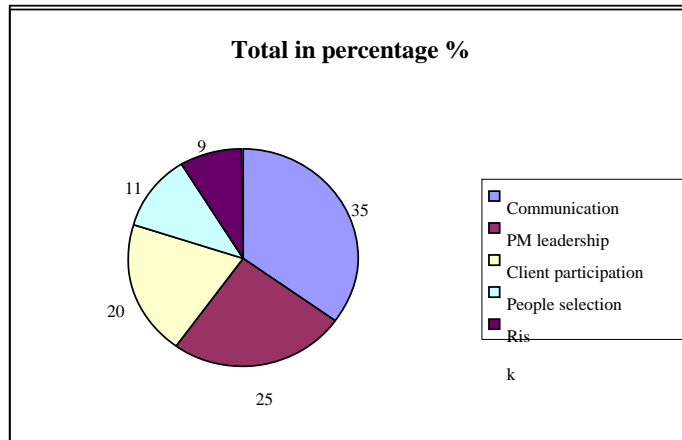


Figure 1: Proportion on effective formation of a multi-cultural team

From the survey results, it can be observed that the participants believe that interaction among multi-cultural team members can stimulate the effective formation of an integrated team. In this study, it has been shown that heavy construction project management is a collective endeavour. In this feature, project leaders have noted that if integrated project teams fail to communicate effectively, then they will be unable to achieve their collective objectives and talents; this does mean that as a team they will be less effective. It is essential that the project manager take ownership in making sure that both internal and inter-group communication is implemented. This can be achieved through effective leadership and maximising effective external communication procedures. Dainty *et al* (2006) stated that the interdisciplinary nature of construction project teams is such that they will always involve project teams from different organisations, backgrounds, skills, and knowledge coming together for short periods to work collectively. The process of team formation and reaching a stage where individuals communicate can be an issue in construction projects. The survey results suggest that communication and leadership does influence effective team formation on projects. As highlighted in the literature (Dainty *et al* 2006), the development of team synergy and a positive project chemistry is theoretically straightforward. The authors are aware of the dynamic nature and characteristics of heavy construction engineering projects and that it means that team formation may be more problematic than in environments that are more static. Here individuals will join teams for defined periods before moving to other projects. This temporal dimension makes it more complex as highlighted by participants in this study.

## 6. Conclusion

This research provides the construction industry with a sense of how widespread cultural issues affect multicultural project teams. From the findings, most participants agreed that multicultural team integration have an important effect on project success. For example, participants mentioned that good multicultural team integration enhances the quality of final product by harvesting expertise and creativity of all the team members. An interesting feature of project integration need that emerged

from this study was that it could vary significantly at different times in the project life cycle. This study, therefore, provides good groundwork for understanding the influential factors that affect multicultural project teams in developed and developing countries. There is a need for the construction industry to develop further its appreciation of the different cultural factors that influence multicultural teamwork in projects.

The growing trend in engineering design and construction is giving rise to a need for the development of effective multi-cultural teams. Now that construction companies are able to move resources to almost any location worldwide and have the capacity to work on a global scale; for many organisations future opportunities to work entails thinking more clearly about cross-cultural issues and more overtly and systematically an understanding of multi-cultural team working. As proposed in this study, this requires the integration of thinking and practice related to cross-cultural management. Although much can be achieved by working with multi-cultural teams, the truly successful construction firms are likely to be those, which embed the change through integrated changes to cross-cultural team selection, development process, communication, collectivism and trust.

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