

MANAGING CROSS CULTURAL DIFFERENCES IN PROJECTS ESTIMATIONS

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Abstract

The likelihood of project success and enhanced organization's competitive position can be as a results of effective use of cross-cultural project teams that provide a source of experience and innovative thinking. However, cultural differences and related conflicts can interfere with the successful completion of projects in today's multicultural global business community. To achieve project goals and avoid cultural misunderstandings, project managers should be culturally sensitive and promote creativity and motivation through flexible leadership. This paper describes the most well-known and accepted theories of cultural differences and illustrates them with examples from project estimations. These theories consider relations between people, motivational orientation, definition of self and others, attitudes toward time, risk, control, context, and the environment. We evaluate motivation and training of multicultural project teams and relevant implications for project management estimations. We provide specific examples of success and failure in multicultural projects and relate project performance to cultural differences. The paper concludes that multicultural project management can succeed through culturally-aware leadership, effective cross-cultural communication, mutual respect, and reconciliation. Without them, it is destined to fail.

1. Introduction

A project is a short-term venture undertaken to create a unique product, service, or result (Project Management Institute, 2008). A significant percentage of the World's Gross National Product is spent on projects, ranging from design and construction of infrastructure, production and telecommunications facilities, software development, pharmaceutical research and development, defense systems among others. According to (World Development Report, 2007), 21% of the world's \$45 trillion gross domestic product is gross capital formation, which is almost entirely project-based. In China it is 43% and in India it is 33%. Project Management makes a significant contribution to value creation globally (Anbari, Khilkhanova, Romanova, Ruggia, & Tsay, 2009a). The recent past has witnessed an upsurge interest in project management and related success factors. Projects are often conducted in a multi-disciplinary, cross-functional, cross-cultural environment. This becomes even more evident in managing international projects, global organizations, outsourcing agreements, and other multi-cultural teams.

Project estimation is a key step in project management. Good project estimation can ease things in the project execution cycle for big and small projects a like, an indication of a project's success or failure (Fleckenstein, 1983). Accordingly, projects can be estimated in response to the RFP (request for proposal) or during the initiation phase of the software development project. Project estimation is the process of assessing project in terms of effort/time and cost prior to starting any software development project. So software project estimation is the process of evaluating the project in terms of effort, time and cost. Software estimation process

is a complex endeavour in that, whenever any software development project is started, it starts with an objective which has some defined requirements and functionalities underlying it. Accordingly, (Anbari et al., 2009a) observe that project managers in the current multicultural global business community encounter cultural differences, which can influence successful completion of projects. Studies on cross-cultural management by (Trompenaars & Hampden-Turner, 2014) propose a set of cultural dimensions along which value systems can be studied. Value systems that affect human thinking, feeling, acting, and the behavior of organizations and institutions in relatively predictable ways, vary across cultures.

Cross cultural dimensions reflect basic problems that every society has to cope with but for which solutions differ. These dimensions can be grouped into a number of categories: The first category is the relations between People. This distinguishes between individualism and collectivism. According to (Trompenaars & Hampden-Turner, 2014), this can be further fall into two dimensions: universalism versus particularism and individualism versus communitarianism. Motivational Orientation is another category. Societies choose ways to cope with the inherent uncertainty of living. In this category there are three dimensions: masculinity versus femininity, amount of uncertainty avoidance, and power distance, and achievement and ascription. Another category is Attitudes toward Time. This can be distinguished between long-term and short-term orientations; sequential and synchronic orientations and monochronic and polychronic attitudes (Anbari et al., 2009a). Control that comprises of internal and external control is another category. This is where the culture believes that it controls its environment or that it works with it. Another category is that of Convergents and Divergers. Convergents are action oriented, enjoy and are good at getting things done, and prefer to work on manageable, well-defined problems for which there is a single ‘best’ answer whereas Divergers prefer reflection and observation, view situations from different perspectives, appreciate different points of view, and prefer to work on vague and ill-defined problems for which there are many alternative approaches (Anbari et al., 2009a).

2. Cultural Differences in Project Teams

In this subsection we describe the most relevant dimensions to managing cultural differences in projects estimation. They are intended to clarify cultural differences and facilitate their understanding to enhance project team performance. Discussing stereotypes at the extremes of cultures can be helpful in understanding these cultures. Individual behaviors within a given culture can vary greatly.

2.1. Power Distance

This describes the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally. The basic problem involved is the degree of human inequality that underlies the functioning of each particular society. In Hofstede's research, power distance is measured in a Power Distance Index (PDI). The values and attitudes found at the national level contrast “low-PDI countries” with “high-PDI countries”, with some countries placed in between (Anbari, Khilkhanova, Romanova, Ruggia, & Tsay, 2009b).

2.2. Uncertainty Avoidance

This refers to the extent to which a culture programs its members to feel either uncomfortable or comfortable in unstructured, novel, unknown, surprising, and situations different from the usual, typical project estimation settings, and the degree to which a society tries to control the uncontrollable.

2.3. Relating Collectivism and Individualism

This is the degree to which individuals are supposed to look after themselves or remain integrated into groups, usually around the family. "Individualism stands for a society in which the ties between individuals are loose: Everyone is expected to look after him/herself and her/his immediate family only. Collectivism stands for a society in which people from birth onward are integrated into strong, cohesive in-groups, which throughout people's lifetimes continue to protect them in exchange for unquestioning loyalty" (Hofstede, 2000, p. 225). National differences in Individualism are calculated in an Individualism Index (IDV). The highest IDV scores were found in the USA, Australia, and the UK. The lowest IDV scores were found in Guatemala, Ecuador, and Panama (Anbari et al., 2009a).

2.4. Control

According to (Trompenaars & Hampden-Turner, 2014), *internal versus external control* where the culture believes that it controls its environment or works with it is key determinant when evaluating cultures. They describe this distinction as follows: First, Relations with Nature Every culture has developed an attitude towards the natural environment. Survival has meant acting with or against nature. The way we relate to our environment is linked to the way we seek to have control over our own lives and over our destiny or fate. Internalistic people have a mechanistic view of nature. They see nature as a complex machine and machines can be controlled if you have the right expertise. Internalistic people do not believe in luck or predestination. They are 'inner-directed' - one's personal resolution is the starting point for every action. You can live the life you want to live if you take advantage of the opportunities. Man can dominate nature - if he makes the effort.

Externalistic people have a more organic view of nature. Mankind is one of nature's forces, so should operate in harmony with the environment. Man should subjugate to nature and go along with its forces. Externalistic people do not believe that they can shape their own destiny. 'Nature moves in mysterious ways', and therefore you never know what will happen to you. The actions of externalistic people are 'outer-directed' - adapted to external circumstances (Trompenaars & Hampden-Turner, 2014). The "environment" can also be the state or government. Hence, externalistic people often feel they have no control of the government. Also, external control can mean that the government controls the lives of individuals, as in an authoritarian state. Internalistic people are more likely to feel they can influence the government, and they look to themselves rather than to society for rules to govern their behavior. As an example, people in the formerly communist countries are going through a transition from external control of their lives to development of their own personal rules of internal control.

2.5. Comparison between Masculinity and Femininity

In the distribution of roles between the genders, masculinity stands for a society in which gender roles are clearly distinct (Anbari et al., 2009b). Men are supposed to be assertive, tough, and focused on material success. Women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which gender roles overlap. Both men and women are supposed to be modest, tender, and concerned with the quality of life.

2.6. Comparing Long-Term and Short-Term Orientation

This refers to the extent to which a culture programs its members to accept delayed gratification of their material, social, and emotional needs. Managers in long-term oriented cultures are used to working toward building strong positions in their markets, do not expect immediate results, and are allowed time and resources to make their own contributions. In short-term oriented

cultures the “bottom line” is a major concern; control systems are focused on it and managers are constantly judged by it.

According to (Balan & Vreja, 2013), cultures can be identified as Sequential or Synchronic and every of these cultures have developed own response to time. The time orientation has two aspects: the relative importance cultures give to the past, present, and future, and their approach to structuring time. Time can be structured in two ways. In one approach time moves forward, second by second, minute by minute, hour by hour in a straight line. This is called sequentialism. In another approach time moves round in cycles: of minutes, hours, days, years; which is called synchronism. People structuring time sequentially tend to do one thing at a time. They view time as a narrow line of distinct, consecutive segments. Sequential people view time as tangible and divisible. They strongly prefer planning and keeping to plans once they have been made. Time commitments are taken seriously. Staying on schedule is a must. People structuring time synchronically usually do several things at a time. To them, time is a wide ribbon, allowing many things to take place simultaneously. Time is flexible and intangible. Time commitments are desirable rather than absolute. Plans are easily changed. Synchronic people especially value the satisfactory completion of interactions with others. Promptness depends on the type of relationship.

Past-oriented cultures are those predominantly oriented towards the past, the future is seen as a repetition of past experiences. Respect for ancestors and collective historical experiences are characteristic of a past-oriented culture. Present-oriented cultures are those that will not attach much value to common past experiences nor to future prospects. Day-by-day experiences tend to direct people's lives. In a future-oriented culture most human activities are directed toward future prospects. Generally, the past is not considered to be vitally significant to a future state of affairs. Planning constitutes a major activity in future-oriented cultures (Trompenaars & Hampden-Turner, 2014).

3. Training of Multi-Cultural Project Teams

Cultural differences among project team members may create additional misunderstanding and difficulties for training. According to (Miliszewska & Horwood, 2006), describes the differences between Western and non-Western cultures that can be used to clarify the impact of diverse values on motivation and training.

4. Project Estimations Implications

Project teams share the cultures of their society and organization. Project management techniques and training, developed primarily in individualist countries, and are based on cultural assumptions that may not hold in collectivist cultures. Project management skills include communications and managing performance. However, in managing teams with members from collectivist societies, one should note that discussing a person's performance or abilities openly with him or her may be felt by the team member as an unacceptable loss of face. Such societies have more subtle, indirect ways of communicating feedback, such as through the withdrawal of a normal favor or verbally via a mutually trusted intermediary.

Organizations and project teams can become more mature in managing cultural differences. Trompenaars and Hampden-Turner describe such maturity as moving from recognizing to respecting to reconciling cultural differences. They define reconciliation as “*an approach where the two opposing views can come to fuse or blend -where the strength of one extreme is extended by considering and accommodating the other*”(Trompenaars & Hampden-Turner, 2014).

5. Successful and Failed Projects

The Y2K is one of the success projects of its time. Its design respected national and organizational cultural differences, trusted self-interest to provide motivation, and relied on each group to fix its systems. Since the schedule was imposed externally, Y2K projects avoided most cultural issues by granting autonomy to nations and organizations and just sharing information. Also, Y2K projects were very unusual, an unchangeable schedule, strong self-interest to provide motivation, ample funding by executives fearful of liability, and no secrecy or competition in sharing solutions, due to fear of cascading failures. The result was that autonomy and trust were maximized. With Y2K it was only necessary to share information, first about the threats and then about solutions and contingency plans. Managing specific projects and achieving their scope, cost, time, and quality objectives were handled by the performing organizations.

On the other hand, the Iridium project was run by a hard-nosed executive who appeared to be extremely focused on the stated project targets with limited consideration for cultural differences, leading to a great failure. Also, Iridium, by trying to incorporate many people into one organization with tasks and schedules and reporting relationships imposed by the organization, encountered numerous difficulties. The difference between Y2K and Iridium could be considered similar to the difference between a market economy and central planning. A market economy maximizes the autonomy of the producing units. Profit and fear of bankruptcy, provide the motivation. Speed and scheduling are provided by the need to beat the competition, or to fulfill the contract. Organizations with very different national or corporate cultures can cooperate smoothly because what matters are the product or service and the price. How organizations function internally is much less important, as long as they are operating within the laws of each country. Information is shared by various methods including business and engineering schools, conferences, and journals. Managers adopt the latest technologies and methods to be competitive. They need not be told to be innovative. Customers choose the best value for their money, and decide who wins and who loses, which companies grow and which go out of business. Centrally planned economies involve rules and rigid hierarchies. Although they can be effective in enforcing common patterns of behavior over large areas, they are rarely innovative.

6. Software Project Estimation Challenges

Several challenges exist in project estimation realm. Some of the key challenges include: The uncertain gray area. Many times even the client is not clear about the whole complete requirement. If there is no complete clear requirement then it becomes hard to estimate it in term of effort and time. Failure to split bigger tasks. If somehow things are clear then many times the estimation is taken keeping in mind the bigger tasks instead of splitting it into smaller tasks for proper estimation. Such estimation will definitely will lead to the overhead tasks at a later stage. Idealistic and optimistic estimation. Most of the time, the estimation is done keeping in mind the ideal and optimistic conditions but things like version maintenance, unavailability of some resource and change requests during the project etc. are not considered in project estimation. Estimation person. Estimation must be done by the developer or in assistance with the developer. Sometimes the estimation is not done by the developer which may lead to huge mismatch in the estimation. Buffer and dependencies. It is always uncertain that how much buffer a PM should take. Usually 15-20% buffer is taken keeping in mind project elaboration as project progresses. But this decision should also consider the things like skillsets, experience of the team and complexity of the project. Dependency of project's internal as well as external factors are not considered most of the time.

7. Conclusions

Globalization is leading to an increasing number of international projects accentuated by growing diversity in many countries. Cultural differences can either be a source of creativity and enlarged perspectives, or they can be a source of difficulties and miscommunication. The literature on cultural differences is steadily increasing and now provides very helpful conceptual frameworks for understanding the different points of view encountered when managing cross cultural differences in projects estimation. Managers of multi-cultural project teams can increase their effectiveness and their firm's competitiveness by making use of this literature. To achieve project goals and avoid potential risks, project managers should be culturally sensitive and promote creativity and motivation through flexible leadership. Project management can succeed in a cross-cultural environment through effective leadership, cross-cultural communication, mutual respect, and reconciliation. Without them, it is destined to fail.

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