Editorial Preface

Cross Cultural Research:  EUC Perspective

Globalization is the key to survival in the 90’s. More and more companies are venturing overseas for new markets, manufacturing facilities or investments. Companies are globalizing through acquisitions, partnerships or joint ventures. Globalization, though lucrative, adds complexity in terms of organizational structure, management strategies and allocation of resources. Decision making becomes complex due to many unknown and uncontrollable factors. This is especially trying for information technology (IT) managers who must make technology transfer, architecture and management decisions within the constraints of international standards (which usually vary from country to country). IT managers face many complex tasks and end-user computing (EUC) support is one of them. We discuss cross-cultural research within the context of EUC.

There is an abundance of literature regarding EUC classification, computing requirements, task structure and individual differences related to a single country environment, name.l.y the US (or the western world). The common inference is that even within a single country environment, end-users at different managerial levels require different IT support. This is due to different task requirements and individual differences in terms of decision making styles, preferences and familiarity with technology. In a multinational environment end-user support requirements are further compounded by many known and unknown factors like culture, norms, traditions and individual expectations. For example, a company headquartered in the U.S. could assemble products in Korea from raw materials from Brazil, transport it through Japan Air for consumers in China. This involves at least five different countries: Korea, Brazil, Japan, China and the U.S.A. An attempt to provide end-user support may require knowledge of five different languages, cultures, laws, politics and level of computer sophistication in addition to factors for single country support.

Though social scientists, anthropologists and psychologists have studied human behavior in different settings in different countries, this is something new for business managers, especially IT managers. For researchers, also, international EUC creates numerous problems in terms of cost, distance, measurement and research methodologies. Single country measurement and methodologies need to be modified to account for differences in languages, samples, cultures and/or politics. Cross-cultural research requires commitment in terms of time, travel, cost and patience.

Steps in Cross-Cultural Research

Cross-cultural research can be divided into three distinct steps; problem definition, team building, and research design. These steps are similar to single country research but their interpretation is very different. We will briefly discuss these steps.

Problem Definition: As in a single country, problem definition is equally, if not more important in a multi-cultural environment. This will dictate research methodology and team architecture. It should include the scope as well as specifics of the problem to the extent possible, i.e., number of countries, types and levels of end-users, nature of technology etc. Problem definition may have to be modified many times due to measurement, sample or instrument related equivalency problems.

Team Building: International research requires a team approach. To conduct research in different cultures requires in-depth knowledge of cultures. Superficial cultural knowledge is dangerous. Researchers need teams to coordinate local and overall activities. A team could be equal partnership (like a ring network) in which each member has equal control or a partnership with one central control and many supporting controls (like a star network). In a ring network each member will be involved in all phases of the research including definition and experiment design. In a star network, the primary researcher will have control of definition and others will be mainly involved in the data collection process. Architecture of team chosen will depend on the countries involved. In industrialized English speaking countries either architectural approach will suffice but in Third World countries equal partnership will almost be a necessity to capture local data.

Research Design: Broadly speaking, this step involves identifying hypotheses, data collection techniques and interpretation methodologies. Research
hypothesis will depend on the problem definition but may have to be modified due to objectivity and equivalency measurement problems. If we are measuring attitudes of end-users in two different cultures, questions like “what are equivalent factors in attitude measurements?” or “What are equivalent samples?”[2] need to be addressed. It may not be possible to measure some factors, or factors may even have different meanings in different countries. For example, executive information systems, group support systems, electronic data interchange, and graphic user interface are useful information technologies in western countries but may have little value or may not be known in Third World countries. Questions relating to these technologies and end-user support may have different meanings to users in these countries. In this case hypotheses will have to be modified to reflect equivalency.

Once hypotheses are established, the next step is data collection. Data can be collected through primary and secondary sources. Accuracy and reliability of secondary data may be of concern in Third World countries. Primary data collection requires samples. What are the equivalent samples? Relevant respondent may be different in different countries. Measuring impact of IT on senior managers may mean different things in different countries. For example, the director of information services may be a senior manager in one culture but may have a different title in another and may not even exist in a third. How do we find comparable and equivalent samples? Local team members can be very helpful in this regard. The next question is to decide on data collection techniques. Survey requires equivalent constructs in local languages. Many techniques like back translation, joint development and iterative convergence[1,2] have been suggested by social scientist. In the case of personal interviews, the mode of address, interviewer bias, respondent perception of interviewer, types of questions and presence/absence of other personnel need to be considered. For example, in some Third World cultures senior personnel (managers) should be addressed as ‘sir’ or by titles whereas in western cultures first name or a simple Mr. is sufficient. In short, surveys or interviews in each country should be conducted by people who think locally but also have global perspective.

Cross-cultural comparisons are probably the hardest part. Factors related to a single nation are not difficult to interpret since responses are relative. For example, if we are studying the impact of emerging technologies on end-user computing, emerging technology and end-user within a country will have relatively homogenous meaning as opposed to among countries. What emerging technology is in one country may be unheard of in another country. Comparing across countries has no meaning in such cases. On the other hand if researchers develop equivalent measurements and samples, the differences in dependent factors could be attributed to independent factors. However, in generalizing results researchers should be aware of cultural biases[2]. Many researchers[1,2] have discussed techniques for comparing samples across cultures, however all have warned against causal interpretations.

Globalization is becoming necessary for organizations’ survival. This is leading into cross-cultural research which requires major commitment, collaboration and patience on the part of researchers. This exciting area of research is just beginning and there is much work to be done in areas of cultural differences and its implications for IT. The brief introduction provided here is hardly all inclusive but provides a good starting point.

References

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