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A COMPARATIVE STUDY OF CULTURAL DIFFERENCES OF SUCCESS FACTORS OF ERP IMPLEMENTATION IN DEVELOPED AND EMERGING ECONOMIES: CASE STUDY OF NORWAY AND ZAMBIA

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ABSTRACT

Enterprise Resource Planning (ERP) system is among business software solutions widely used in subsidiaries of multinational companies today. This paper focus on the analysis of national culture and perceived information systems success factors in developed and emerging economies. A better understanding of national culture effect on critical success factors when implementing these technologies in different countries enables stakeholders to optimize scarce resources in an effort to focus on significant factors likely to aid a successful implementation. A comparative study is presented by utilizing qualitative research methods through interviews of four multinational firms, two from Norway and two from Zambia. Hence the paper attempt to explore Cultural differences of success factors in ERP implementation in developed and emerging economies.

Keywords: ERP, Critical Success Factors, Developed and Emerging Economies, Multinational Organisations, Subsidiaries.

INTRODUCTION

The increasing need of information as a decision making tool has led to the increased use of information systems and software packages in the business world today. Most multinational organizations across the globe have considered building their IT infrastructure around these software applications in an effort to meet high customer demands, efficiency and integration of departments and subsidiaries. Enterprise Resource Planning systems (ERP) are among such software systems. ERP systems are information systems that manage integration of the entire business including accounting, customer service, production planning, purchasing, manufacturing, sales and distribution (Sheu et al., 2004). ERP has been proposed as a solution to integrated management approach (Shanmugam et al., 2000). ERP systems are increasingly important in modern business because of their ability to integrate the flow of material, finance, and information to support organizational

strategies (Yusuf, 2004; Yao and He, 2000). There has also been a greater appreciation for the challenges involved in implementing these complex technologies (Kim et al., 2005). Even though ERP systems can bring competitive advantage to organizations, the high failure rate in implementing such systems is a major concern (Chang et al., 2008; Yeh et al., 2007). These challenges in multinationals firms differ from one business culture to other. In addressing these challenges involved, researchers and most qualified literature have stressed on the importance of user training, change and project management competences as major critical success factors for ERP implementation (Buonanno et al., 2005; Mandal and Gunasekaran, 2003; Motwani et al., 2002). In different national cultures, adoption and implementation time varies from one country to the other, as well as the challenges involved. A developed economy is a self-governed state that is highly developed with advanced technological infrastructure in comparative to other emerging economies (Barry et al., 2006). Hence with respect to the two countries under study, Norway is more developed compared to Zambia. The criteria for evaluating economic development is based on Gross Domestic Product (GDP), level of industrialization, amount of wide spread infrastructure and the general standard of living. Norway emerges as one of the world's most prosperous, richest, with its GDP estimated at USD 38 765 in 2004 (Barry et al., 2006). Zambia appeared to have a strong economy at independence in 1964, with the highest per capita income in Southern Africa, primarily based on mining (Carmody, 2009; CSO, 2006a). Foreign investment and recapitalization in mining in particular gave rise to investment up to 27.1% of GDP in 2003 (RoZ, 2004); close to the levels of other emerging economies in East Asia. However, in 1998, poverty was estimated at 83% for rural areas and 56% in urban areas (The Zambian, 2006), Mining heavily influences outcomes in other sectors, despite the fact that it now accounts directly for only 6–9% of Zambian GDP and around 10% of formal employment (Carmody, 2009; World Bank, 2004).

This comparative study involved four subsidiaries of multinational companies who have adopted and implemented ERP systems from Norway and Zambia. The paper main focus is on the effect of culture on critical success factors. Two subsidiaries of multinational companies using ERP systems from each of two countries are used comparatively in this study.

NATIONAL CULTURE IN ERP PROJECTS

Culture has been defined as the shared ways in which groups of people understand and interpret the world (Wong et al., 2008; Trompenaars 1994, p.3). Hofsted's (1984) also proposed that culture is something that is learned and therefore is embedded in society or nation. Broadly, national culture can be identified as the value system of a country (Rajapakse, 2012). Hence, national culture has an influence on human activity which is deemed pervasive and acknowledged as a factor for permeating manager's values (Williams et al., 1998; Wong et al., 2008). However, the constructs of culture is multi-dimensional which is hard to measure (Ghinea and Bygstad, 2011).

The relevant aspects of culture in ERP systems include strong social components or moral values of national culture which have predominant effects in project implementation (Livermore and Rippa, 2011). In the adoption and implementation of ERP systems; both national culture and organisational culture have great influence including work-group levels (Gallivan, 2005). However, impacts of national culture differences are predominantly important in global implementations and tend to over-ride technical considerations (Avison and Malaurent, 2007). Consequently, scanty understanding of national culture differences, organisations are far from applying ERP successfully in integrating international supply chain (sheu et al., 2004).

In addressing these issues concerning effects of national culture on ERP systems, several studies have been conducted. Xiang Fang et al., (2011) explored multi-national implementation of ERP systems in two different national cultures and found significant variables which had direct impact on projects. Png et al., (2001) also explored the impact of national culture on adoption

behavior and found some compelling effects. These studies concentrated on two countries (US and Japan) using two Hofstede's culture dimensions. Convincingly, national culture has shown to play a key role in influencing response to new consumer products as well as to new information technologies (Png et al., 2001; Xiang Fang et al. 2011). This is in the aspects of uncertainty avoidance, a dimension of national culture that affects the perceived ease of use of ERP systems (Hwang, 2005; Guo et al., 2008).

Further comparative studies like van Everdingen et al., (2003, 2005) investigated Small Medium Enterprises from countries across Europe on the effects of five Hofstede's (2001) culture dimensions on country adoption rates of ERP systems. Nevertheless, their findings supported the preposition that national culture differences within EU are large and likely to impinge on adoption of innovations for companies operating in different countries. In addition, other comparative cultural studies on ERP systems in advanced and developing countries by Huang and Palvia (2001), also highlights factors that have impact on IT adoption and ERP penetration. Erumban and Jong (2006) also used Hosftede's (2001) framework and observed that ICT adoption decision across countries were considerably associated with cultural factors. The results indicated that variables of national culture [see Table 1 below] had a significant influence on the country`s adoption rates. This study builds on these previous theories discussed. Though neither these studies addressed the role of national culture on how critical success factors are prioritized in implementation of ERP systems in this context.

Thus, in this study, Hosftede's (2001) Classification framework is used to explain the impacts of national culture. Though in the past years there has been critique on Hosftede`s cultural dimensions in IS research. This is precisely on the assumption that culture equates with the country or 'nation-state` in which one was born or raised (Ford et al., 2003; Gallivan, 2005; Mayers and Tan, 2002; Walsham, 2002). Williamson (2002) also raised further critique of Hofstede`s national culture model; the first concerning reliability and whether they tapped equivalent meaning in each culture. Despite such criticisms, Hofstede`s impact on management research has been substantial and his cultural dimensions form the conceptual backbone of much cross-cultural management and IS research (Ford et al., 2003; Gallivan, 2005; Sondergaard, 1994).

Table 1: Hofsted's National Culture dimension effects on Technology Characteristics of companies influenced with Low/High scores on Hofstede (2001) five national culture dimensions on expected influence on innovation adoption (van Everdingen et al., 2003, 2005)

	Low scores on dimensions	High scores on dimensions
PDI Power Distance Index	Decentralized decision structures; Flat organization; Use of personal experience; Subordinates expect to be consulted; Innovations need good champions; Managers involved in purchasing decisions	Centralized decision structures Negative; Use of formal rules; Subordinates expect to be told; Innovations need good support from hierarchy; Managers not involved in relevant purchasing decisions
UAI Uncertainty Avoidance Index	Skepticism toward technological solutions; Innovators feel unconstrained by rules; Tolerance for ambiguity in structure and Procedures management; Innovations welcomed but not necessarily taken seriously	Strong appeal for technological solutions Innovators constrained by rules highly formalized conception of; Innovations resisted, but if accepted, applied consistently
IDV Individualism Index	Belief in collective decisions; Innovation champions want to involve others; Innovations within existing networks; Fewer invention patents granted; Less social mobility across occupations	Belief in individual decisions; Innovation champions want to venture out of their own; Innovations outside existing networks; More invention patents granted; Greater social mobility across Occupations
MAS Masculinity Index	Relations and working conditions; Stress on equality, solidarity and quality of work life; Managers expected to use intuition, deal with feelings and seek consensus; Lower job stress	Security, pay and interesting work; Stress on equity, mutual competition, and performance; Managers expected to be decisive, assertive, aggressive, competitive; Higher job stress
LTO Long-Term Orientation	Focus on short-term results: the bottom line; Short-term virtues taught	Focus on building relationships and market position; Long-term virtues taught

CRITICAL SUCCESS FACTORS IN ERP IMPLEMENTATION

Many studies have been conducted in Critical Success Factors (CSFs) for implementing of ERP systems such as Esteves and Pastor, (1999); Oliver and Romm, (2000); Stefanou, (2000); Verville and Halingten, (2003), and have identified notable success factors in various projects. However, most of the success factors identified in the aforementioned studies are related to human factors. In the same vein, Sun et al., (2005) equally argues that ERP implementation is more about people than about technology. Verifiable, the works of Somers and Nelson (2001; 2004) are notable studies which provide validity of success factors as they are based on large scale meta-studies. In total, twenty one CSFs were identified which had subsequent effect when implementing ERP systems such as top management support, project team competence, clear goals and obectives, etc. Project management involves planning project stages, allocating responsibilities to various players, defining milestones and critical paths, training and planning human resource and determining criteria for measuring success (Finney and Corbett, 2007; Nah et al., 2001). As a consequence, for efficient execution of a particular project there is need for effective communication and co-operation from all departments involved in the project (Maheshwari and Kumar, 2003; Nah et al., 2001). Additionally, the project competence support team and user training should be comprehensive throughout the different stages of implementation (Soja, 2004). Conversely, it is important that the system matches with the business process (Chen, 2001). As a result, careful package selection requires much adequate attention (Somers and Nelson, 2001, 2004; Yusuf et al., 2004).

Critical Success Factors are prioritised to their level of importance, and to some extent depends on the project setting. Nevertheless, top management support is an essential factor for monitoring implementation progress and paving a clear path for the project (Bhatti, 2005). Hence, it is important that even the project champion comes from top management as this is a factor which should not be overlooked (Somers and Nelson, 2004). Other sensitive success factors worth mentioning include Change Management and Business Process Re-engineering (BPR) which affects the way an organization conducts business resulting to changing management positions which might be the source of opposition to the new system (Pellerin et al., 2009).

However, there is need for further research as the advancement of technological innovation is at great pace. This rapid pace at which new technologies are being adopted will apparently influence the state of criticality for research into Critical Success factors (Yeoh and Koronois, 2009; Little, 1998). This study adopted the Somers and Nelson (2001) general framework of critical success factors [Table 2]. This assisted in explaining the proposed conceptual framework and how they applied in the two different national cultures of Norway and Zambia.

Table 2: Somers and Nelson (2001) results, proving the mean ranking of Critical Success Factors by degree of importance in ERP implementations

Critical success factor	*Mean*	Critical success factor	*Mean*
Top Management Support	4.29	Steering Committee	3.81
Project Team Competence	4.20	User Training	3.97
Interdepartmental Co-operation	4.19	Education on New Business processes	3.76
Clear Goals and Objectives	4.15	BPR	3.68
Project Management	4.13	Minimal Customization	3.68
Inter-departmental Communication	4.09	Architecture Choices	3.44
Project Champion	4.04	Change Management	3.43
Vendor Support	4.03	Vendor Partnership	3.39
Careful Package selection	4.03	Vendor Tools	3.15
Data Analysis and Conversion	3.89	Use of Consultants	2.90
Dedicated Resources	3.83		

Comparative national culture analysis of Norway and Zambia

Hoftsed's (2012) comparative analysis below [Figure 1] aids the explanation of national culture dimensions of Norway and Zambia. The national culture analysis shows scores on culture dimension index of the two countries. This also helps in explaining the underlying factors that affect CSFs in implementation of ERP systems.

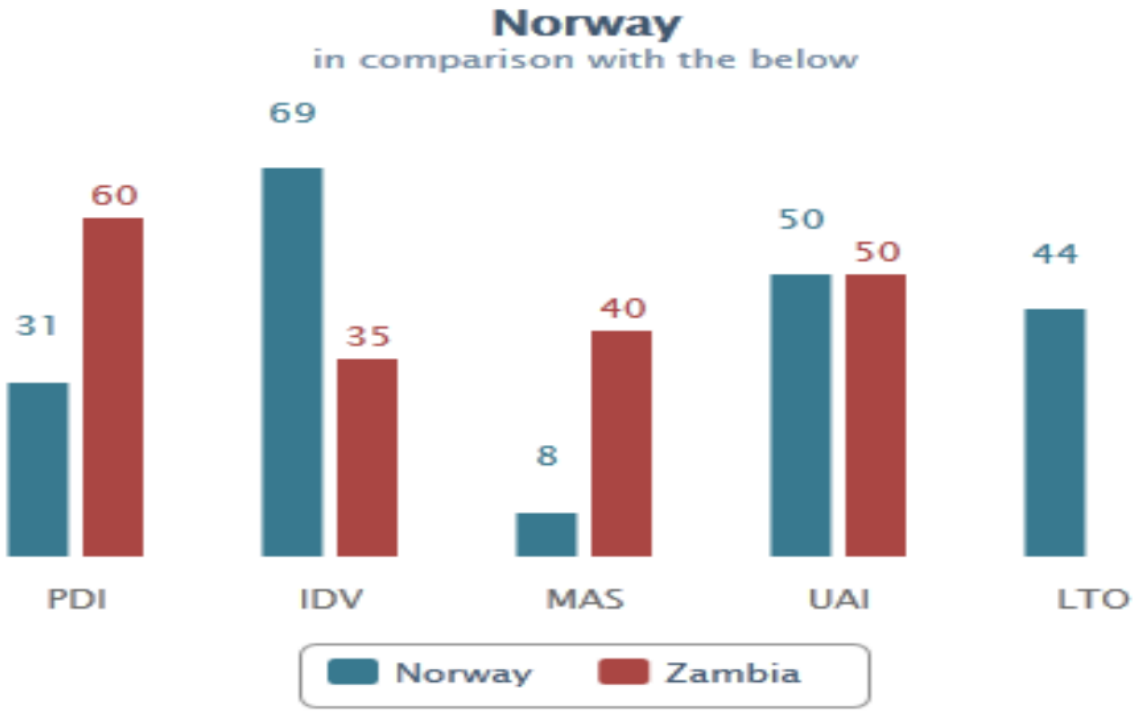

Figure 1: Hofstede's comparative national culture analysis

http://geert-hofstede.com/norway.html (Accessed 05.06.2012)

EFFECTS OF CULTURE DIMENSIONS ON CSF' IN NORWAY AND ZAMBIA

Power Distance Index (PDI) -Hofstede's (2012) comparative analysis of above shows that Norway has low Power Distance index (PDI) of 31 compared to Zambia which has a high index of 60. Most organizations in countries with high PDI are often characterized by centralized decision structures, authority, the use of formal rules, and sharing of information is constrained by hierarchy (Hoftede, 2001; van Everdingen et al., 2003; 2005). In most developed countries, power distance between the managers and employees is low; unlike in most developing countries this gap defines the power. When power distance between organizational roles is high, it indicates that team work is not effective. In situations like this, decision makers are managers only and lower level employees are not allowed to actively participate in decision making. Hence, there may be problems at lower levels that management maybe not be aware. Therefore, it is important to adhere to reform styles of top management support accordingly before implementing ERP. One way of reforming styles of top management support is to delegate decision-making authority to the lower levels. This can decrease the negative effects of high Power Distance cultural dimension.

Individualism Index (IDV)-Norway is considered to be an individualistic society with a score of 69. This means that the "Self" is important and individual, personal opinions are valued and expressed (Hsftede, 2012). While Zambia is considered be medium with a score of 35. Hofstede (2001) found that employees from organizations with high individualistic countries tend to have more freedom to develop and try new products than employees of organizations in collectivistic countries. Consequently, individualism or collectivist society has directly impact on "Interdepartmental cooperation", "Company-wide support", "Interdepartmental communication" and "Project team competence"(Cyrus and Nejad, 2011). Hence, in collectivist cultures, there is need to adhere to transformations in organizations which improve weaknesses related to this cultural dimension. Therefore, to increase the prospects of success of CSFs that are affected with this cultural dimension there need to increase incentives for the implementation team members. There lies a positive relation between individualism and national innovativeness (van Everdingen and Waarts, 2005; Shine, 1993; Lynn and Gelb, 1996). Therefore employees in developed economies like Norway employees are expected to have high job mobility, and one thinks in terms of individual careers (Hofested, 2012).

Masculinity Index (MAS)-A high masculine society is likely to be driven by competition, achievement and success, which are defined by the winner / best in field which is a value system that starts in school and continues throughout organizational behavior (Hofstede, 2001). A low score (feminine) on the dimension means that the dominant values in society are caring for others and quality of life. Mostly, in masculine cultures emphasis is on rewards, recognition of performance, covering training and improvement of the individual characteristics common in innovative organizations (Hofstede, 2001). Norway scores (8) low on masculinity, thus considered the second most feminine society. A feminine society is one where quality of life is the sign of success and standing out from the crowd is not admirable (Hofstede, 2001).

Uncertainty Avoidance Index (UAI)-According to Hofstede(2001) and van Everdingen and Waarts, (2003) organization in countries with a high uncertainty avoidance index generally show characteristics such as the resistance to innovations, high formalized management and the constraining of innovations by rules. The dimension Uncertainty Avoidance has to do with the way that a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? This ambiguity brings with it anxiety and different cultures have learnt to deal with this anxiety in different ways (Hoftede, 2012). High score UAI cultures tend to have a risk-averse attitudes implying that companies will not take unnecessary risks and only adopts innovations if its value has already been proven in the market (van Everdingen and Waarts, 2003; 2005). Norway and Zambia scores 50 and thus becomes a fairly pragmatic culture in terms of uncertainty avoidance. In a way, to lessen or reduce uncertainty, there is need for strict laws, rules and regulations that can be enforced in the entire organization. Communicating the objectives and benefits of ERP implementation in organization, encouraging employees to be creative, and rapid and transparent notification can reduce employees' uncertainty avoidance morale and thus increase the probability of success in implementation.

Long-Term Orientation Index (LTO)-This dimension is characterized by values like persistence, adaptations of traditions to new circumstances, personal adaptability and the idea that most important events in life will occur in future (van Everdingen and Waarts, 2003). Hence, it is expected that companies in cultures with a long-term orientation focus on future results and are more receptive to changes than companies operating in short-term orientation. Subsequently, in short-term orientation society like Zambia, more attention should be directed to these CSFs affected, otherwise this might be the source of failure in projects. One way of combating this, is by drawing implementation goals and objectives for all of the staffs, which is a sign for long-term orientation in organizations that try

to draw future of the organization for their staff. Norway scores 44 which relates to more of a medium term orientation culture. This is obvious that leisure time is important, absolute truths needed and there is a concern for stability.

EXPECTED PATTERN

The above discussion provides a basis for identifying expected patterns from the literature reviewed. According to the CSF framework adopted in this study [Table 2], the most prioritized or most influential are those that had a high mean in the Meta study of Somers and Nelson (2001). Those which had a higher mean meant that they were the most prioritized CSF, though this does not imply that the other CSF are of less importance in project implementation. The CSF that are most affected by the dimensions of culture according to literature are summarized in Table 3. These are the most expected pattern of CSF to be influenced by national culture. Though the pattern on how these CSF are prioritized in projects is referred to Table 2. Hence, for the purpose of this study, both Table 2 and 3 aids the explanations in patterns identified from the literature.

Table 3: Most affected CSFs by the culture dimensions

Culture Dimension	Most affected CSF	Norway	Zambia
Power Distance index	Top management support	Top management support	Top management support, Project Championship
Uncertainty Avoidance Index	Clear goals and objectives, Careful Package Selection	Careful Package selection	Clear goals and objectives
Individualism Index	Interdepartmental communication, project team competence	Interdepartmental communication	Project Team competence
Masculinity Index	User training, Project team competence, interdepartmental communication	Project Team competence	User training
Long Term Orientation Index	Clear goals and objectives, change management	Change management	Clear goals and objectives, Change management

Therefore, much more precisely the expected pattern of selected CSFs in most projects in Norway and Zambia are those most influenced by the culture dimensions. Notably from Table 3 above, with respect to the two countries under study, the expected pattern of five most recognised CSFs according to the cultural settings are identified. Illustratively, listed in Table 4 below is the expected pattern.

Table 4: Expected pattern of top five CSFs (Norway and Zambia)

Norway	Zambia
1. Top management support	1. Top management support
2. Project team competence	2. Project team competence
3. Interdepartmental Communication	3. Clear goals and objectives
4. Careful package selection	4. Project Championship
5. Change management	5. User training

Research Design

The research design provides a framework for collection and analysis of data (Bryman, 2008). In order address the aims and objectives of this study; a comparative research design is applied. The Comparative design entails that the study is of two contrasting cases using more or less identical methods which may be realised in the context of qualitative or quantitative research (Bryman, 2008). This design is ideal for this aspect of IS research in a comparative study context of two different national cultures of Norway and Zambia. "One form of comparative research designs is cross-cultural or cross-national research" (Bryman, 2008.p58).

Sampling Methods

In order for the researcher to sample on the basis of wanting to interview people who are relevant to answering the research question, purposive sampling was conducted. Purposive sampling is a useful method for selecting information cases for the study in-depth. Mainly, it is done to increase the utility of information obtained from small samples (McMillan and Schumacher, 1997).

Sample composition and limitations

Primary data were collected from four subsidiaries of multinational firms that have implemented SAP R/3. The SAP R/3 was chosen because it is one of the most widely used ERP packages in multinational firms and the leading market shares in most industries. This study is not aimed at examining technical configuration of the package; hence findings can be generalized to the large-scale of ERP implementation packages other than SAP. However, since this study explores national culture effects on CSF in ERP implementation, findings may not be applicable to other firms which are located in different national cultural settings.

Table 5: Comparison sample

	Type of ERP System used	No. of years since implementation	No. of respondents	Type of business
Company A Subsidiary of a multinational Norway	SAP Technology	9	4	Tyres
Company B Subsidiary of a multinational Norway	SAP Technology	8	4	Cement and Construction
Company C Subsidiary of a multinational Zambia	SAP Technology	4	4	Breweries
Company D Subsidiary of a multinational Zambia	SAP Technology	5	4	Motor Vehicles

Data collection Method (Secondary and Primary Data)

The data collection determined to attain the objectives of this study involved two types of data: secondary data and primary data was used. Secondary data is the data used for a research project that were originally collected for some other studies. In achieving research objectives, attaining extra validity and reliability, secondary data complements the collected data. While primary data is data collected for the first-hand experience for the purpose of research being undertaken through interviews, questionnaire or observation (Bryman and Bell, 2007). For the purpose of this study and in achieving the research objectives, semi-structured interviews were used to collect the data. Sixteen interviews were conducted; four respondents were drawn from each of the four companies.

Pattern from primary data

The pattern from the respondents is identified from the informer's matrix which is further summarized in Table 6 as the pattern from primary data. The response pattern involved sixteen (16) participants, eight (8) from each of the countries involved. The respondents as part of the questions were asked to identify five most influential CSFs which were prioritized according to the project settings based on the experiences. Evidently, the table below reflects how respondents identified the CSF to be among five most important. The symbols (~) and (#) denotes the response pattern, where (~) represents CSF most identified as priority by informants and (#) for the CSF less or not identified as priority by the informants.

Table 6: Pattern from primary data

Norway according to the interviews	Zambia according to the interviews
(~ - CSF most identified as priority by informants) (# - CSF less or not identified as priority by informants)	(~ - CSF most identified as priority by informants) (# - CSF less or not identified as priority by informants)
~ -Top management support ~ -Project team competence ~ -Interdepartmental communication ~ -Careful package selection # - Change management	~ -Top management support ~ -Project team competence # -Clear goals and objectives ~ -Project Championship ~ -User training

The expected patterns from secondary data and the patterns from primary data afforded the basis for explaining findings of the study. Table 7 below illustrates how patterns matched.

Table 7: Expected and Empirical Patterns

	Expected pattern	Empirical Pattern (~ - CSF most identified as priority by informants) (# - CSF less or not identified as priority by informants)
Norway	Top management support Project team competence Interdepartmental Communication Careful package selection Change management	~ -Top management support ~ -Project team competence ~ -Interdepartmental communication ~ -Careful package selection # - Change management
Zambia	Top management support Project team competence Clear goals and objectives Project Championship User training	~ -Top management support ~ -Project team competence # -Clear goals and objectives ~ -*Project Championship* ~ -User training

The discussion which follows, objectively addresses these findings in accordance to the aims of the study.

Pattern matching discussion

The patterns identified led to the discussion into CSFs which were recognized as most prioritized from both patterns mentioned in the study.

Top management support - In most developing countries the masculinity index is high, Zambia is no exception. The employees or respondents from these subsidiaries of multinational firms in Zambia reviewed compelling facts that they were not part of decision making. The employees barely understood the benefits of implementing ERP system. Unlike the respondents from Norway who expressed good knowledge of why the system had to be implemented and its benefits. The reasons could be attributed to the different management support styles in implementation projects. Subsequently, this could be owed to masculinity which has a considerable effect on the communication styles between management lower ranked employees.

Project Team Competence - The respondents from both cultural settings identified this factor as a priority factor in implementation of ERP systems. The primary data reviewed that most multinational firms have competence training centers where the system support team is based, which covers user training and other arising technical support when required. The project team is the back born of the project and their competence must be of high standard to ensure implementation success. Subsequently, respondents in both settings mentioned this factor among five most important factors. One manager in Norway when asked if they have had any SAP certification training which makes them competent to cop, in response he mentioned that;

"No, in both companies I have been working, we have the competent centers at the main office in Germany where we have the people doing the job specifically for the system. When we have faced challenges that we are unable to solve ourselves, we describe the problem to them and they are able to solve".

As mentioned in the literature reviewed, the ERP system is a complex system and when successfully implemented, operates smoothly in aiding the business process. It is out of this complexity that users cannot always know everything. However, a perfect situation would be where everyone knew everything but that is not possible. This was consistent with the finding in another setting in Zambia where the IT manager also stated that; *"It is important to have knowledge within the system to create the CCT customer competent Centre where you can educate employees from time to time."*

Careful Package Selection - Though most of respondents in Norway mentioned careful package selection as one of the most important CSFs, for most subsidiaries of multinational firms this factor is beyond their jurisdiction. This is because for most subsidiaries, the responsibility of package selection is not left for them to manage; the main head office is usually responsible for package selection to cover the entire organization. The head office or the central decision point is the source for the need of integration to have a shared platform for transparency and efficient management; hence they are responsible to come up with the project plan though they consult managers or employees involved. Significantly, from the informer's matrix, respondents in Zambia barely made mention of careful package selection as success factor in implementation project. This is attributed to masculinity, decisions are mostly left for managers, and other lower ranked employees are not allowed to actively participate in decision making. In comparison to Norway, respondents identified careful selection as one of their five most important success factors. This is because Norway is feminist society and the employees actively participate in decision making, hence they were able to identify this factor. Consequently, when implementing systems in cultures with low Masculine Index such as Norway, it is important to make employees involved to be part of the decision making. This might help in accepting the system and reducing user resistance.

User Training - The respondents who identified user training as one of the most important CSF in ERP implementation were from developing economies of Zambia. Many respondents identified this factor in Zambia compared to Norway where only few respondents mentioned user training as priority factor in the implementation project. This might be attributed to other factors such as level of education which could have an effect, but the most compelling reason could be the different levels of exposure to technology. One manager in Zambia stated that: "*implementation success depends on the way you learn and understand the system and be able to utilize it*". Observably, in emerging economies most of the employees are not very much exposed to technologies in comparison to developed economies such as Norway. Hence, when implementing ERP systems in developing economies such as Zambia, this factor must be adhered to as priority. Regardless of national culture settings and exposure to technologies, this factor must be observed as an important factor in all project settings.

Interdepartmental communication - Generally, communication is an important aspect in ERP projects. One of the main reasons for implementing this type of system is the integration of departments. Hence interdepartmental communication is the focal point before, during and after implementation of the system. This success factor was identified or mention by most respondents in Norway, as predicted in the expected pattern. Norway is considered to be feminist society, notably the Masculinity index is low. Evidently, the respondents mentioned that there were enough co-operations between departments and regular meetings were held.

Project Championship - In the project settings under study, Project Championship as a CSF was identified by respondents in Zambia. Noticeably in these projects, this was among the five most prioritized CSF in implementation success. In both cases, the project leader came from the headquarters where the competence center was also located. Notably, this leader spearheaded the project and was the motivator. Evidently, this project leader was of senior position and the decision making was constrained by rules and hierarchy. This might be owed to the high Power Distance Index in Zambia which is also moderate in Norway.

Clear goals and objectives - In any project, the direction and objectives must be precise and clear enough to pave way for targeting achievements and project millstones. Though this CSF was not identified by many respondents in Zambia as expected, it is an important factor in the success of the project. Significantly, only few respondents mention this CSF among their five most influential factors. Subsequently, this could be the result of the low score on Long Term Orientation Index in Zambia which has detrimental effect on projects success. The Uncertainty Avoidance Index score is equally the same for Norway and Zambia. Consequently, there were also clear indications of risk-averse in decisions making structures from both settings.

Change management - Though not identified by any of the respondent as predicted in the expected pattern, change management is an important CSF which must be adhered to with caution. Relevantly as reviewed in the literature, the implementation of ERP system brings change to the entire organization. Consequently, this change must be properly managed otherwise it may be the source of failure in project implementation. Considerably, Norway could be more flexible in adoption of change compared to Zambia. According to the interviews, some respondents in Zambia were not happy with the changes in their work brought by the implementation of ERP system. This could be the effects of Long Term Orientation Index which is high in Norway and very low Zambia. Hence, this change management should be administered with the foresight of cultural issues which might impinge on success.

CONCLUSION AND FUTURE WORK

The objectives set for the comparative study have been achieved. The implementation of an ERP system is a complex project which require thorough understanding of precidented and unprecidented consequenses which need to be observed for the project to be a sucess. In subsidiaries of multinational firms, the implementation projects in different countries faces different challenges which also leads to proritizing CSFs differently to suite the project setting. The study reviewed compelling factors which are important to observe in multinational ERP implementations. In line with the objectives of the study, relevant literature was reviewed on national culture and critical success factors. Most importantly, the study explored the CSFs that are affected from effects of national culture with respect to Norway and Zambia comparatively. In addition, the interviews reviewed which CSFs are prioritized in the projects settings according to user's experiences in the context of developed and emerging economies.

In a broader context, this study contributes to explanations into the effects of national culture on CSFs in implementation of ERP systems. This is relevant information to managers and consultants implementing these technologies to pay more attention to those CSFs that affect weak or strong undesirable cultural dimension. The internal validity of the study was examined by linking the dependent variables (expected pattern) and the independent variables through interviews based on experiences of managers and employees using the system.

The practical implications for this study suggest that before multinational implementation of ERP systems, thorough national culture analysis is conducted prior to project commencement. The index scores on national culture dimensions should help in understanding which approach and style of management to enforce. Consequently, more emphasis should be placed on identifying cultural dimensions which have considerable influence on CSFs of the project. This should help project managers to be aware of the effects of national culture dimensions which can aid or impinge on the success of the project. One notable practical implication with respect to the countries involved in this study, is owed to masculinity which affects the management styles of the project. The project championship as CSF must display supportive management style according to the culture setting. Thus, in Zambia the project managers should apply more authoritative in management style. While in Norway the project managers should apply a more inclusive decision making style approach where employees don't feel left out in the decision making process.

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