

Towards understanding organisational culture contradictions between organisations and the Information Technology Infrastructure Library (ITIL) framework: A review of the literature

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Abstract

This study focused on the phenomenon of Information Technology Service Management (ITSM) framework adoption and the instance of the Information Technology Infrastructure Library (ITIL) framework as the central issue. The ITIL framework is the most adopted ITSM framework amidst challenging implementations. The major challenge cited in previous studies is culture shift during the implementation of the ITIL framework. Thus the objective of the paper was to review the literature to provide evidence to explain the failure of the implementation of ITIL framework by organizations due to cultural contradictions between organizations and the ITIL framework. The study used the competing values framework (CVF) as theoretical lens to investigate the organisational culture contradictions. The study offered an alternative perspective to explain some of the contradictions and tensions encountered during the implementation of the ITIL framework.

Key words: Information Technology Service Management ITSM, Information Technology Infrastructure Library ITIL, Organisational culture, competing values framework

1. Introduction

This study focused on the phenomenon of Information Technology Service Management (ITSM) framework adoption and the instance of the Information Technology Infrastructure Library (ITIL) framework as the central issue. (ITSM) focuses on “*delivering and supporting*” Information Technology (IT) services that are relevant “*to the business requirements of an organisation*” (OGC (2002). To achieve effective ITSM, the ITIL offers an all-inclusive, “*consistent and coherent set of best practices for IT Service Management processes, promoting a quality approach to achieving business effectiveness and efficiency in the use of information systems*” (Barafort & Rousseau, 2009:74). The complexity of IT-related risks is on the increase and the problem can be dealt with effectively, it is claimed, through implementing IT frameworks (Hardy, 2006). Among the available ITSM frameworks, the ITIL framework is the most adopted framework (Iden & Eikebrokk, 2013) with the highest-cited adoption rate of 66 percent (Dubie, 2008) among other statistical figures obtainable. OGC (2002) argue that “*by the mid-1990s, ITIL was recognised as the world de facto standard for Service Management*”. This concurs with the statement on the official ITIL website that “*ITIL is the most widely accepted approach to IT service management in the world*”. A survey conducted by itSMF International showed that the ITIL framework had the highest adoption index in 2008, 2010 and 2013. This trend shows that the ITIL framework has gained momentum and it is a popular approach to IT service delivery improvement. However, the adoption process is marred by a number of challenges. Some organisations are finding the ITIL framework risky, complex and expensive to implement (Pereira & da Silva, 2011; Pollard & Cater-Steel, 2009; Shang & Lin, 2010).

while some implementations have failed completely (Pereira & da Silva, 2011). Figure 1 shows a list of some of the challenges faced by organisations, with cultural shift topping the list (KPMG, 2007)

Major challenges	Percentage
Culture shift	17.2%
Integration with current process	15.5%
ITIL/ITSM related knowledge	13.8%
Appropriate management tool	10.3%
Clear measurement target	10.3%
Project within budget	8.6%
Insufficient internal professional staff	8.6%
Project on time	5.2%
Managing consultants	1.7%
Incapable and inexperienced consultants	1.7%

Figure 1: ITIL implementation challenges (KPMG, 2007)

Generally, any framework can support one dominant culture or multiple cultures. With the ITIL framework that is currently uncertain. The framework can satisfy one of these two possibilities. However, if it support one dominant culture, organisations which do not embrace the supported culture are likely to experience cultural differences or contradictions which in turn can result in difficulties in cultural shift during the implementation the framework. If it support multiple competing cultures, it also remains unclear how that is achievable. Certain organisations are struggling with the implementation of the ITIL framework and there is growing evidence of cultural differences between the ITIL framework and the organisations implementing it. This study reviewed the literature to provide evidence to explain the failure of the implementation of ITIL framework by organizations due to the cultural contradictions or differences between organizations and the ITIL framework. The study is premised on the conjecture that the complexity of implementing the ITIL framework arises from difficulties in cultural shift caused by contradictions in organisational culture assumptions between the ITIL framework and organisations.

This paper first considers the definition of organizational culture and then reviews the literature about the implications of working with Information and Communication Technologies (ICTs) across different cultures. The section that follows looks at the competing values framework (CVF). The CVF provided theoretical lens for investigating organisational culture contradictions between organisations and the ITIL framework. The section that follows presents results of the literature review with respect to organisational culture contradictions between the ITIL framework and organisations implementing it. Conclusions are finally drawn and the direction for future research is suggested.

2. Organizational culture

Culture is a central variable of this study and should be well understood. However, the challenge is that it has many definitions. Kroeber and Kluckhohn (1952) identified 164 definitions. This study adopted the definition which captured the fundamental concepts of culture that were relevant to this study. Several studies defined culture as ideologies, coherent sets of beliefs, basic assumptions, shared sets of core values, important understandings, and the collective will (Sackmann, 1992). Schein

(1985b) identified artefacts, values, and underlying assumptions as three levels of organisational culture. Artefacts are “*visible organizational structures and processes;*” values are “*strategies, goals and philosophies;*” and underlying assumptions are “*unconscious, taken for granted beliefs and habits of perception, thought and feeling*”.

3. The implications of working with ICTs across different cultures

Due to globalisation, the use of ICTs is mainly happening in an “*across-cultural context ... and as a result working with ICTs across different cultures should prove to be problematic, in that there will be different views of the relevance, applicability and value of particular modes of working and use of ICTs which may produce conflict*” (Walsham, 2001). Conflicts which arise during the adoption and use of various technologies include three types namely system, contribution and vision conflict (Leidner & Kayworth, 2006). System conflict emanates from the discrepancies in user group’s values and the values expected to be in a particular IT (Leidner & Kayworth, 2006). Contribution conflict occurs “*when the values of members of a group conflict with the values the group not IT is perceived as a legitimate source of capital in itself, or a legitimate means by which to obtain other important capital, is largely determined by the dominant actors in a field* (Leidner & Kayworth, 2006). Vision conflict arises from a situation when members of a group hold certain values about a particular technology which conflict with the values actually rooted within the particular technology. Figure 2 illustrates how shared IT values, values embedded in specific technologies and values of group members intersect at national, organisational and subunit level giving rise to system, contribution and vision conflicts.

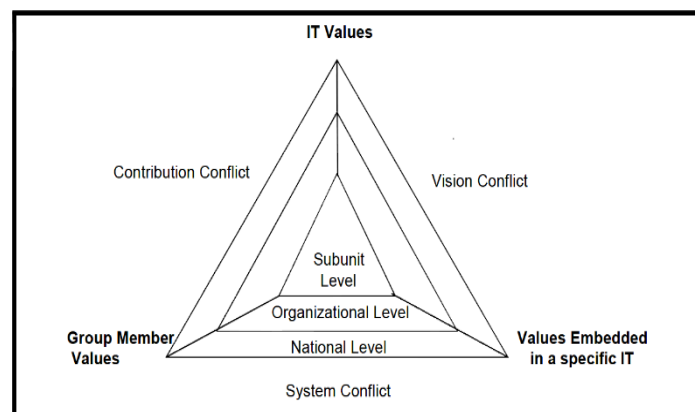


Figure 2: A Tripartite View of IT-Culture Conflict (Leidner & Kayworth, 2006)

Leidner and Kayworth (2006) argue “*that culture at the national, organizational, or subunit level exerts a subtle and yet powerful influence on people and organizations and that information flows and information technologies are often closely intertwined with culture*”. Some organisations struggle to effectively leverage IT precisely because some systems work technically correctly but lack in culture fit; hence their ‘organizational validity’ is questionable (Markus & Robey, 1983). Standard ERP systems have a higher failure rate because they impose standardised business processes to employees of diverse cultures (Markus, Tanis, & Van Fenema, 2000) and also cultural assumptions embedded in them differ from most organisations (Davenport, 1998). Kappos, Rivard, and Lapointe (2005) argued that “*when the interpretations of an IT are clear, are seen as consistent with the existing cultural manifestations and lead to a consensus within the culture, reactions to the IT are more likely to reflect acceptance, adoption, and use*”.

Many technologies are designed for the Western market, hence they harbour Western culture assumptions in them (Robert Davison & Martinsons, 2002). Therefore, it is critical to investigate underlying cultural assumptions that are embedded in specific technologies and evaluate if these assumptions are compatible with other possible adopters in other parts of the world (Robert Davison & Jordan, 1998). The ITIL framework originated from the United Kingdom (UK) Government. It was first developed in 1989 by a UK government agency called Central Computer and Telecommunications Agency (CCTA) (Sallé, 2004) and the trademark is currently owned by the UK Office of Government Commerce. This subject it to the critical evaluation process as it is a framework adopted world-wide due to globalisation. According to the contingency theory, there is no universal best technique for organising an organisational structure, including processes. Being effective in some situations often precludes being successful in others (Fiedler, 1964).

Relevant to this study, Leidner and Kayworth (2006) once posed the following question: “*Will the same IT be used in similar ways across cultures and result in similar benefits ...?*”. This question is valid to this study and is applicable to the adoption of the ITIL framework. Walsham (2001) argues that “*technology transfer from one society to another involves the importing of that technology into an ‘alien’ cultural context where its value may not be similarly perceived to that in its original host culture*”. Will the ITIL framework be used in similar ways across cultures and result in similar benefits? This study argues for a review of the literature to surface the implicit and often unelaborated cultural contradictions that confront many organisations that implement the framework. More importantly, the evaluation can provide corroborated evidence to suggest that the framework can or cannot be implemented successfully across cultures. Talla and Valverde (2013) argue that to successfully implement the ITIL framework, factors such as the environment (social, organisational, and physical) and processes and their interdependencies should be taken into account.

The investigation of contradictions and tensions brought about by various IT innovations in organisations has been on- going for the past two decades (Amory, 2010; Bonneau, 2013; Dholakia & Zwick, 2004; Kappos et al., 2005; Leidner & Kayworth, 2006; Murphy & Rodriguez-Manzanares, 2008; Ngwenyama & Nielsen, 2003, 2008; Orlikowski, 1991; Robey, 1995; Robey & Boudreau, 1999). These studies range from those that focused on contradictory consequences, reactions, interpretations to those that focused on contradictions embedded in the innovation. IT is dynamic and to date, such studies are still relevant. Recently there were calls for papers particularly on special issues on paradox, tensions and dualities of innovation and change (Erez, Jarvenpaa, Lewis, Smith, & Tracey, 2013, 2014). Innovation is the embracing of a problem-solving idea, practice or material artefact, for example a product which brings with it an organisational change (Martins & Terblanche, 2003). In this study, the implementation of an ITIL framework is considered as some form of innovation. Robey and Boudreau (1999) argue that “*each new generation of technology and each major technological advance has been accompanied by energetic claims that organizations as we know them will be radically and fundamentally altered*”. Similarly, the advent of the ITIL framework is not an exception. It received its fair amount of claims. However, the claims and arguments contained in the framework cannot be accepted or dismissed without any empirical evaluation. Thus such evaluation is pursued in this study.

Indeed, progress has been made in dealing with challenges faced by organisations which implement the ITIL framework (Ahmad & Shamsudin, 2013; Cater-Steel & Tan, 2005; Fry, 2005; Potgieter, Botha, & Lew, 2005; Sharifi, Ayat, Rahman, & Sahibudin, 2008; Zhen & Xin-yu, 2007). However,

little attention has been given to studies that deal with issues of culture during ITIL implementations. Organisational culture is a factor that organisations ought not to overlook when implementing Information Technologies (R Davison & Martinsons, 2003). It is a major determinant factor for the success or failure of various Information Technology (IT) innovations in many overt and covert ways (Judge, Fryxell, & Dooley, 2009; Kulkarni, 1998; Tesluk, Farr, & Klein, 1997).

4. The competing values framework (CVF): A theoretical framework for investigating organisational culture contradictions between organisations and the ITIL framework

The competing values framework (CVF) has four cultural variations, namely hierarchical, rational, consensual, and developmental (Quinn & McGrath, 1985). The framework present the four organisational culture dimensions and the distinct values they embrace. Table 2 details the attributes of each culture type. The hierarchy culture is focused on control and stability. The culture is internally focused and resembles a military environment. Leaders in this category focus on monitoring and the decision making style is top-down. The organisational structure is based on routine tasks and formal rules and policies. The power rests on knowledge of organisational rules and procedures. The rational culture is oriented towards productivity and efficiency. The concern is on maximisation of output and efficiency to achieve objectives and power rest on competence. Organisational structures are made up of complex tasks and responsibilities depend on expertise. The consensual culture is oriented towards cohesion, morale and collaborative work groups. Consensual organisations are focused on unity and with human commitment. In this grouping, change is embraced and decision making is participatory. Members are concerned with team building and are committed to processes. A developmental culture is oriented towards human development, empowerment and embrace changes. It is also risk oriented. Tasks are complex and the organisational structure is made up of complex tasks and collaborative work groups. This type of culture embraces change as part of growth.

Table 1: Competing values in organisational culture (Quinn and McGrath, 1985)

Aspect	Hierarchical	Rational	Consensual	Developmental
Organizational orientation	Stability and control	Productivity and efficiency	Cohesion and morale	Flexibility, adaptability and readiness
Organizational objectives	Execution of regulations	Pursuit of objectives	Group maintenance	Growth and development
Organizational structure	Routine tasks and technology; formal rules and policies	Complex tasks; Responsibilities based on expertise	Complex tasks; Collaborative work groups	Complex tasks; Collaborative work groups
Base of power	Knowledge of organizational rules & procedures	Competence	Ability to cultivate relationships	Values
Decision making	Top-down pronouncements	Goal-centered, systematic and analytical	Participatory, deliberative	Organic, intuitive
Leadership style	Dominance, conservative, cautious	Rational achiever, goal oriented	Team builder; concerned, supportive	Idealistic, risk oriented, empowering
Compliance	Monitoring and control	Contractual agreement	Commitment to process	Commitment to values
Evaluation of members	Adherence to rules	Level of productivity	Quality of relationships	Intensity of effort
Orientation to change	Resistant (orientated to maintaining the status quo)	Open to goal driven change	Open to change	Change is embraced as part of growth

The competing values framework (CVF) offers the theoretical basis for investigating organisational culture assumptions embedded in the ITIL framework and cultural contradictions between organisations and the ITIL framework. The approach is motivated by a study conducted by Ngwenyama and Nielsen (2003), which analysed the assumptions about organisational culture, embedded in the capability maturity model (CMM) and used the CVF to detect cultural contradictions. Thus the CVF can assist in understanding conflicting cultural values. This makes it a suitable framework for investigating organisational culture contradictions between organisations and the ITIL framework evident in literature. The CVF framework has four discrete dimensions that shed light on the fundamental tensions and conflicts which organisations face in trying to adapt to the environment. The cultural values in each dimension can be used to interrogate the literature to look for evidence of cultural assumptions embedded in the ITIL framework and the dominant or multiple organisational cultures supported by the framework. If the ITIL framework support one dominant culture type defined by the CVF, differences or contradictions between organisations that has other organisational cultures and the ITIL framework may arise. Ngwenyama and Nielsen (2003) argue that the competing values framework (CVF) can assist in addressing problems of organisational change.

5. Cultural contradictions between the ITIL framework and the organisations implementing it

This section reviews the literature to find evidence of cultural differences or contradictions between the ITIL framework and the organisations implementing it. To identify various types of contradictions, two phenomena come into consideration namely “*implied coreference and embedded text* and ... *whether two entities are coreferent may be probable rather than certain*” when there is no “*countervailing evidence*” (Rafferty & Manning, 2008). Thus some of the contradictions embedded in the ITIL framework to emerge in this literature review are implied rather than certain. Also, some of the contradictions are reflected in the framework’s values. Schein (1985a) argues that these values mirror underlying cultural assumptions. The researcher is cognisant that for texts to be considered contradictory, they must be referring to the same occurrence (Rafferty & Manning, 2008). In this case the focus is on the ITIL framework.

The framework can intimidate employees as it may act as a tool for watching and monitoring them (Fry, 2005). This implies that organisations which do not embrace monitoring and control are likely to experience contradiction. The framework is technically correct but in other instances where employees do not embrace being monitored, it lacks culture fit. Hence in other instances, its ‘organizational validity’ as argued by Markus and Robey (1983) is questionable. With the differentiation perspective,

The ITIL framework thrives on teamwork within an organisation and the implementation process includes every group and individual and it brings about cultural change (Ahmad & Shamsudin, 2013). Also, the ITIL framework is a process oriented framework. Processes span across functional departments and this requires collaborative teamwork and commitment to processes. Consensual and developmental culture supports this setup. However, the majority of IT departments are silo-based (Sharifi et al., 2008). Conflict may arise when managing processes which extend functional silos. Conflict may also occur when a process crosses departments in an organisation where department boundaries are distinct and ownership is of significance (Sharifi et al., 2008). Thus organisations with a hierarchical and rational culture and which lack collaborative teamwork are likely to experience contradictions when they implement the ITIL framework.

Knowledge sharing and communication are critical factors during the adoption of an ITIL framework (Pollard & Cater-Steel, 2009). Information sharing will allow collaboration of different teams to effectively manage IT infrastructure. Communication will also make the process of transforming cross-functional process easy (Pollard & Cater-Steel, 2009). This blends well with consensual and developmental cultures. These two types support collaborative teamwork. The framework assumes an environment where departments' core exists and with the same 'values' which is not always the case. This implies that organisations with rational and hierarchical culture types are likely to experience some contradictions when they implement the ITIL framework.

Staff in all the departments involved in the implementation processes of the ITIL framework should understand the ITIL framework. If some departments do not, misunderstandings may arise. Consultants and vendors require rigorous training (Ahmad et al. 2012). Competence is emphasised in a rational culture. Hence organisations with other cultures may experience a contradiction when they implement the framework. It is even argued that the implementation of the ITIL framework necessitate more knowledge and skills than mere ITIL familiarity only (Ahmad & Shamsudin, 2013).

The ITIL framework offers flexibility in processes to avoid imposing rigid processes (Fry, 2005). In offering that, the ITIL framework process structure is ambiguous (Schmidt, 2006; Sharifi et al., 2008). Processes need to be extended for them to be executable processes (Schmidt, 2006). Yet adopters are not aware of which process to start with and how much each process costs (Fry, 2005). Organisations then try to implement all or many of the processes in one go resulting in poor integration, confusion and staff unrest (Sharifi et al., 2008). In reality not all processes are of significant value to organisations (Cater-Steel & Tan, 2005). These problems have their roots in a lack of formal definition of IT processes' and appropriate techniques to design 'IT service processes' in the framework (Schmidt, 2006).

Engaging in change management processes during the adoption of an ITIL framework is key to achieving a successful implementation (Steinberg, 2005). The focus should be precisely on organisational cultural change. Many organisations take the implementation of the ITIL framework as an ordinary IT project without factoring in the change management process and as a result, they rarely succeed (Silva and Martins, 2008). The implementation of the ITIL framework brings with it new positions and skills set (Fry, 2005). This creates 'fear of change' in employees. Thus organisations with consensual and developmental culture which embraces change are likely to have successful implementations. Such cultures are supportive, empowering and risk oriented. Organisations with a hierarchical culture which is orientated towards maintaining the status quo will face challenges in bringing in change. Marquis (2006) argues that the framework has poor change management attributes, which result in many implementation failures. The implementation of the ITIL framework requires management involvement, which has a bearing on funding, top down communication and enforces compliance to the new framework (Mehravani, Hajiheydari, & Haghghinasab, 2011; Tan, Cater-Steel, & Toleman, 2009). This fits with the hierarchical culture which has attributes of top down communication approach and enforcement of organisational rules and procedures. Organisations with a culture which lacks these attributes are likely to experience implementation failures.

The ITIL framework has to be aligned with the culture of the organisation adopting the framework (Steinberg, 2005). In most cases organisations that succeed are those which have the ability to align organisational culture and management processes when an innovation is embraced (Kulkarni, 1998;

Syrett & Lammiman, 1997). Any differences between an organisational culture and the requirements of innovation may result in contradictions (Luu & Venkatesh, 2010). Thus organisations with a developmental culture which adores flexibility and adaptability will succeed.

It is argued that the process of implementing the ITIL framework is not explicitly documented and thus managers are unsure of the best method of implementing the framework (Marquis 2006; Talla and Valverde, 2013). Organisations which implement governance frameworks often face challenges, such as the assumption that the prescribed solutions would solve existing problems, being model based, while they ignore business needs (Heston & Phifer, 2011).

6. Conclusion

A review of the literature provided preliminary evidence that there are cultural assumptions embedded in the ITIL framework. The findings has also shown that the ITIL framework has attributes of the hierarchy, rational, consensual and developmental culture types. The question that arise from these findings is how the framework successfully supports all the four competing cultures. There is a high possibility that cultural contradictions between organisations and the ITIL framework are a result of this finding. These preliminary findings support the initial conjecture that the complexity of implementing the ITIL framework arises from difficulties in cultural shift caused by contradictions in organisational culture assumptions between the ITIL framework and organisations. These findings highlighted an area that could have been obstructing the successful implementation of the ITIL framework and has been previously overlooked.

Admittedly, contradictions rooted in organisational culture assumptions embedded in the ITIL framework could not be easily identified from the literature. It was also difficult to identify the dominant culture which the ITIL framework support. Such information is relevant to organisations implementing the ITIL framework as it assist them to deal with organisational culture shift challenges. Despite the stated limitations, the study has provided preliminary insights on cultural contradictions embedded in the ITIL framework. This study argues for the need for an empirical investigation of the organisational culture assumptions embedded in the ITIL framework and further establish contradictions and hidden meanings rooted in the organisational culture assumptions.

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