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Implementation of an Information Technology Infrastructure Library Process – The Resistance to Change

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Abstract

This paper presents the preliminary results of an academic research about implementation of an Information Technology Infrastructure Library (ITIL) process conducted in 2012 in a Portuguese public organization named Culture, Tourism and Transport Regional Department of Madeira Autonomous Region. During the process we encountered resistance against ITIL and adversity to change. It is also true that other factors occurred in this project as the change of economic conditions or constrained resources. With this study we can conclude that ITIL is useful for increasing the overall quality of IT services, reduced costs, improved customer satisfaction, improved productivity and delivery, but we found that particularly in the public sector there is a natural resistance to change. This resistance is the most important issue for the deployment of ITIL practices in public sector because the formal and bureaucratic processes are settled in the culture of organizations.

Keywords: Resistance to change; Information Technology Infrastructure Library - ITIL; Information Technology Service Management (ITSM); Configuration Management; Madeira Autonomous Region.

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1. Introduction

The resistance against Information Technology Infrastructure Library (ITIL) implementation starts immediately when the organization plans to adopt this library. We encountered this effect in the begin of our research at Culture, Tourism and Transport Regional Department in Madeira Island, when we intended to perform a case study about the implementation of ITIL v3 Configuration Management process [1]. In fact, there are many frameworks (or models) to adapt best practices to organizational IT Services and the decision to opt for one of them is not easy. It may even be possible implement multiple frameworks simultaneously, using from each one the best we can adapt to our organization as demonstrate by Bahsani et al. [2].

Firstly we asked some public organizations of Madeira Autonomous Region (MAR) the possibility of conduct the implementation of an ITIL v3 process research in their organizations. Immediately we noted resistance to accept new procedures that would change the organizational policies and procedures. With this study we found that there are certain unfamiliarity with this framework and consequently the difficult to accept great changes or intervention in their IT infrastructure. However the IT Service (Núcleo de Tecnologias de Informação e Comunicação - NTIC) of the Culture, Tourism and Transport Regional Department made all the efforts to be possible to begin this research. As evidenced by the meetings we have made with their technicians and managers, the implementation of an Information Technology Service Management (ITSM) framework, albeit through an academic research, was well accepted.

Resistance to change is inevitable and every organization has to face with this issue in some degree. Leaders must be prepared to manage this aspect of change effectively in order to help the organization move quickly from resistance and denial to acceptance [3].

2. Research methodology

Our research [1] took place at the IT Service of Culture, Tourism and Transport Regional Department of MAR, where we conducted a case study for the implementation of ITIL Configuration Management process. The choice of this framework became from its growing spread worldwide and its great acceptance among IT professionals who work in large public and private organizations. The adoption of ITIL practice has grown greatly in recent years and several examples can be found in a large range of organizations as evidenced by the review of England [4]. But there are recognized difficulties when implementing ITIL processes that can compromise its success.

Because of international and portuguese examples we know that the adoption of ITIL best practice continues growing. In the first example we have the Universities and Colleges Information Systems Association - UCISA [5] which indicates thirteen universities in UK that already started implementing ITIL or The Walt Disney Company [6] where to begin implementing ITIL, provided to all staff ITIL Foundation training. But also portuguese cases can be listed as the academic work of Esteves [7] which conducted at the Institute of Information Technologies in Justice (*Instituto das Tecnologias de Informação na Justiça*) an interesting case study; or Figueiredo [8] that analyzed in an anonymous public organization the social costs about ITIL implementation and where she says "one of the major causes of these failures is the lack of recognition of the need for an effective communication strategy to deal with the barriers to organizational change."; or Ferreira [9] who investigated the implementation of ITIL processes in ISCTE – University Institute of Lisbon IT Service. However a significant proportion of these initiatives fails or takes too long until completion. Wilkinson [10] cites a Forrester report, revealed that 52% of ITSM improvement programs fail because of resistance. Surely these failures entail costs and risks for the organization. We believe that our case study fits into one of these implementations have failed. We can attribute various reasons for this end, but the resistance to change was certainly one of the most important aspects.

As IT becomes progressively more important to business operations, increasing number of IT organizations are turning to ITIL and other ITSM frameworks to bring IT under control and provide services that deliver business value. Unfortunately, many ITSM improvement programs fail, causing wasted costs and increased business risks because of 'Resistance to Change' which is brought about while adopting ITIL practices [11].

2.1. Resistance against ITIL

Resistance to change is one of the most problems often stated in ITIL implementation processes [8], [10], [11]. In this particular research, this problem was detected throughout the project, albeit tenuous or covert. However, we felt that was one of the most important factors that prevented a full implementation of Configuration Management process. We also detected some obstacles during the research: lack of continuous and assiduous feedback by the staff of the Culture, Tourism and Transport Regional Department and some indifference and a lack of cooperation in the ongoing process to a successful implementation.

Probably, to reduce this negative impact should be a good option start by another ITIL process, specific for these circumstances. ITIL includes a process capable to dealing efficiently using standardized methods and procedures organizational change in IT infrastructure – the Change Management [12]. This process seems to acquire greater importance when we faced with large percentage of resistance to change. In our opinion, this process could be a priority in the implementation of ITIL processes in public organizations. In fact, an organization that has already undergone changes in its IT infrastructure that affected the goals and organizational processes gained some experience to avoid mistakes in the future. The change models that are included with Change Management can lead to a decrease of failure in the implementation of ITIL processes. A change model defines specific predefined steps that will be followed by a change in that category. These models could be designed in a very simple way to follow up the change procedures.

2.2. Discussion phase

We want discuss the resistance to change that has contributed too many ITIL implementations failed. In addition to our study and others referenced in Portugal, we intend to demonstrate with further analysis into regional government services that resistance to change might become an obstacle to modernization and the consequent improvement in the services provided. Although other important factors could be able to prevent the successful implementation of processes [10], as demonstrate in the bullets below, resistance to change is in our opinion transversal to many of them. We can show the relationship with many mentioned reasons of ITIL implementation failures in several organizations referred by Wilkinson [10]:

- No management commitment – if the managers do not take a clear position of strength and support for ITIL implementation then encourage all staff to adopt resistance actions, although they are more or less camouflaged and concealed;
- Saying 'Yes', but meaning 'No' – if someone responds with this intention, then assumes that the process implementation does not care, nor can contribute to it success when it rises questioned;
- "Never mind about following the new procedures just do what we normally do." – continuing perform the same procedures, the same functions without having any craving for new versions or ways to conduct it demonstrates a clear resistance to change;
- "ITIL – it will never work here." – probably a sentence like this can be said early in the process. What suggests (if known the ITIL purpose) that there is not even an attempt to an implementation, which of course will change the organizational procedures;
- Throwing (ITIL) solutions over the wall and hoping that people will follow them – presenting on this way the ITIL processes purpose or its implementation, does not help the staff has an interest in the project and

demonstrate an availability to collaborate actively. On other way, let the ITIL objectives suspended by itself will lead to a detachment and will increment the resistance;

- No understanding of business impact and priority – when does not understand the impact in improving the delivery of IT services that successful implementation would have on the organization, probably will not align with a process change.

2.3. Research methodology

We adopted the study case as methodology for this research. The adoption of this research strategy was due to several factors, perhaps most important to us was the availability of the information provided by the stakeholders in the process. The research took place at the headquarters of the IT Service of Culture, Tourism and Transport Regional Department of the Regional Government of Madeira in 2012 during a master thesis. Our primary goal was create assessment instruments of the present status of configuration management process and analyze the results in the IT Service (NTIC). After this, publish relevant recommendations, based on ITIL best practices for Configuration Management process, to be made by the organization.

2.4. Collecting data

First of all we start meetings [1] with the administration and with the IT Service staff to find out the best ITSM framework to apply in the case study. Together we opted by the Configuration Management process. After this, we decided, based on the policies of the ITIL v3 Service Transition [12] and Klosterboer [13], build two different roadmaps to distribute in the initial phase of this research. These documents work as templates and guidelines for groups that don't know the ITIL practice. One model is for the administration, this document was prepared synthetically, using a common language, more accessible to non IT specialist groups. The second model is directed to the IT Service staff, was written in a technical terminology according to ITIL and computer science syntaxes.

We observed with different data collection instruments [1] in the IT Service of the of Culture, Tourism and Transport Regional Department and others IT Services in Madeira Region, the ITIL best practices and specifically the Configuration Management process increasing quality for the IT infrastructure. These instruments were essential to identify weaknesses and strengths. Regarding the interviews, the primary goal was to gather opinion about ITIL from leaders, administrators and professionals of IT departments from Regional Public Administration and private organizations operating in Madeira Autonomous Region. We requested twelve interviews from different organizations, but only seven were held, because we had no response, as shown in Table 1. All interviews contained the same eight questions. From the responses we gather more information from what was expected due to the approach of cross-cutting issues on the part of respondents to questions.

Table 1. Interviews requested to different organizations

Organization	Interviewed	Completed
Zon Madeira	Information Systems Department	Yes
PT (Madeira)	Business Operational Directorate of Madeira	Yes
Empresa de Electricidade da Madeira	Information Systems Department	Yes
Madeira Tecnopolo	Madeira Tecnopolo Vice-President	Yes
Madeira University	Support Office Rectory	Yes

Câmara Municipal do Funchal	Systems and IT Department	Yes
Portos da Madeira	IT Service	Yes
ANAM	-------------	No
Direção Regional de Informática	-------------	No
Electricidade dos Açores	-------------	No
Direção Regional de Turismo	-------------	No
SESARAM	-------------	No

After the interviews, two different questionnaires were distributed toward two different groups of Culture, Tourism and Transport Regional Department. One about the Configuration Management process, another, referring general aspects of the quality of IT service and improvements that may accrue to the organization if this process is successfully implemented.

The questionnaires and interviews provided during the study case, gave us valuable information about the current state of IT infrastructure and linking it to the official activities of Configuration Management. The data collection took too long, because the research participants did not respond within the deadlines. Other factors could origin that, but we believe that some carelessness or unconcern about a project that can improve the IT infrastructure means resistance to change the procedures installed. Some economic and financial reasons influenced also our research and contributed to increase the resistance to change. Last year, during the research phase, Madeira Region experienced a financial cut, for national reasons, reflected in the Public Administration budget. One of the direct effects was to keep mostly of the IT services with a reactive maintenance instead a proactive or preventive maintenance and applying or installing new external processes became difficult or cancelled.

3. Conclusion

During the research of Configuration Management implementation in the Culture, Tourism and Transport Regional Department was recorded some flexibility and receptivity towards new methods of Information Technologies that help improve the quality of IT services provided. But sometimes this acceptance seems to take too long to be transformed into practical processes and therefore take advantage of its benefits. We also noted the need to demonstrate a greater interest in the changes that would occur as well as find out the practical results of a successful implementation process. Undoubtedly, this work would be enriched if complemented with more tips and information from all staff of the organization. We related this disinterest with a resistance to change, that seems conserve work habits and the organizational culture already installed.

Resistance to change seems to characterize many of the public organizations. The fact of presenting new technologies and solutions to streamline processes to improve services provided by these organizations seems to crash with procedures and habits installed. Hence it seems acceptable when implementing ITIL in public organization, starts by Change Management in order to raise awareness among stakeholders of the changes that occur inside the group.There is also resistance to change from staff that are in a comfort zone and used to doing things in a certain way. Surely this resistance is encountered more often than given credit for says Ahmed [14].

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