SOCIAL BPM
THE ROLE OF SOCIAL NETWORKS IN BUSINESS PROCESS MANAGEMENT

Ana Raquel Vaz Vieira Tavares Cruz

Dissertation submitted as partial requirement for the degree of Master of Statistics and Information Management
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by

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DEDICATORY

I dedicate this work to the three women and the three men in my life:

- My Mother Teresa who has always supported and helped me not only in this, but in all endeavours of my life.

- My sister Isabel for the inspiration and encouragement that our "ideas trade" gave me.

- To the posthumous memory of my grandparents Henriqueza and João who taught me the values that rule my life.

- Last but not the least, to the two biggest loves of my life - my sons Tiago and Rodrigo – for the understanding, support and patience that (sometimes) have with me.
ACKNOWLEDGEMENT

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I would also like to thank my Friends:

- My three P’s - Patricia, Paula (& Adelino) and Patricia for having understood my absences and never “abandoned me”.
- Nuno, Luis and Pedro with whom I learned while I had fun. Without them I would never have arrived here.
- Emilia (& Elisio), Paulo and Natércia who have endured me and always encouraged me never to give up.
- Gisela for the nice “outside” moments, friendship and encouragement, and for always believing in me.

Also a special thank to Helena Santos that patient and professionally reviewed the English of this work, making it even better.

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Finally, I would like to thank all those who in my personal, academic and / or professional life doubted my abilities, and tried to make my life difficult, leaving stones on the way. It was with them that I have built this "wonderful castle."

______________________________

1 “Stones in my way? I keep them all, one day I will build a Castle” (Fernando Pessoa)
ABSTRACT

In recent years, social networks have assumed an important role in the life of millions of people and more recently in the life of organizations, that are discovering their potential.

We are living in a context of generalized crisis in Europe and in the world but we are also living in globalized Europe and world, where achieving competitive advantage depends much of means either than productive ones.

Some of these factors have evolve and are now almost inseparable of organizations, allowing them to built holistic visions of their systems, people, information and equipments.

Knowledge management, information management and business process management are recognized as a source of competitive advantage as well, but just like social networks not all organizations already understand their potential.

For the development of the thesis we did a qualitative research based on a literature review and a case study on a Portuguese airline whose key findings are centred on the fact that social networks, by bring voices that are dispersed, enable to organizations to have more and better knowledge which can be used in process redesign and thus achieving competitive advantage.

This study contributes to understand how SN can help organizations improve their Business Processes and how Business Process Management (BPM), Knowledge, Social Computing and Social BPM, interact and influence each other and help organizations optimize their processes.

KEYWORDS

Business Process Management (BPM); Knowledge; Social Computing; Social BPM; Social Networks, Facebook; Airline Company
RESUMO

Nos últimos anos as redes sociais assumiram um papel preponderante nas vidas de milhões de pessoas, e mais recentemente também nas vidas das organizações, que estão a descobrir o seu potencial.

Vivemos num contexto de crise generalizada na Europa e no mundo mas também numa Europa e num mundo globalizado, onde alcançar vantagem competitiva depende cada vez mais de fatores que não só os produtivos.

Alguns desses fatores evoluíram nos últimos anos e são agora quase indissociáveis de organização, permitindo às mesmas obter visões holísticas dos sistemas, pessoas, informação e equipamentos que a compõem.

Gestão do Conhecimento, Gestão de Informação e Gestão de Processos de Negócio, são reconhecidos como fonte de vantagem competitiva mas tal como as redes sociais, nem todas as organizações descobriram ainda o seu potencial.

Para o desenvolvimento da tese foi feita uma pesquisa qualitativa com base numa revisão de literatura e um estudo de caso numa companhia aérea Portuguesa centrando-se as principais descobertas no facto de que as redes sociais, ao trazerem para dentro das organizações vozes que estão dispersas, permitem encontrar mais e melhor conhecimento que pode ser usado na reformulação dos processos e, assim, alcançar vantagem competitiva.

Este estudo contribui para entender como as Redes Sociais podem ajudar as organizações a melhorar os seus Processos de Negócios e como a Gestão dos Processos de Negócio (BPM), Conhecimento, Computação Social e BPM Social, interagem e se influenciam uns aos outros no sentido de ajudar as organizações a otimizar os seus processos.

PALAVRAS-CHAVE

Gestão de Processos de Negócio (BPM); Conhecimento; Computação Social; BPM Social; Redes Sociais; Facebook; Companhia Aérea
TABLE OF CONTENTS

DEDICATORY ........................................................................................................................................................................ iii
ACKNOWLEDGEMENT .................................................................................................................................................................... iv
ABSTRACT .................................................................................................................................................................................. v
RESUMO .................................................................................................................................................................................. vi
FIGURES .................................................................................................................................................................................. ix
TABLES ................................................................................................................................................................................... ix
ABBREVIATIONS ...................................................................................................................................................................... x

CHAPTER 1 - INTRODUCTION ...................................................................................................................................................... 1
  1. OVERVIEW ......................................................................................................................................................................... 2
  2. MAIN GOALS .................................................................................................................................................................... 5
  3. THESIS STRUCTURE ........................................................................................................................................................ 6

CHAPTER 2 – LITERATURE REVIEW ........................................................................................................................................... 8
  1. BUSINESS PROCESS MANAGEMENT (BPM) .................................................................................................................. 9
     1.1. Process-Centric Organizations .................................................................................................................................. 9
     1.2. Process and Business Process .................................................................................................................................... 11
     1.3. Business Process Management (BPM) ................................................................................................................... 12
  2. KNOWLEDGE .................................................................................................................................................................... 16
     2.1. Knowledge ................................................................................................................................................................. 16
     2.2. Knowledge Management ........................................................................................................................................ 17
     2.3. Knowledge Creation .................................................................................................................................................. 19
     2.4. Knowledge Sharing .................................................................................................................................................. 20
  3. SOCIAL COMPUTING ........................................................................................................................................................ 23
     3.1. Open Innovation ......................................................................................................................................................... 23
     3.2. Crowdsourcing ........................................................................................................................................................... 24
     3.3. Social Computing ....................................................................................................................................................... 26
  4. SOCIAL BPM ........................................................................................................................................................................ 29
     4.1. Social Networking ...................................................................................................................................................... 29
        4.1.1. LinkedIn .......................................................................................................................................................... 30
        4.1.2. Twitter .......................................................................................................................................................... 30
## ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACD</td>
<td>Automatic Call Distributor</td>
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<tr>
<td>BP</td>
<td>Business Process</td>
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<td>BPM</td>
<td>Business Process Management</td>
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<td>BPR</td>
<td>Business Process Reengineering</td>
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<td>CC</td>
<td>Contact Center</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>DOA</td>
<td>Design Organization Approval</td>
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<tr>
<td>EASA</td>
<td>European Aviation Safety Agency</td>
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<tr>
<td>EEA</td>
<td>Association of European Airlines</td>
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<tr>
<td>e.g.</td>
<td><em>exempli gratia</em> (for example)</td>
</tr>
<tr>
<td>EP</td>
<td>Empresa Pública (Portuguese for Public Company)</td>
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<tr>
<td>FB</td>
<td>Facebook</td>
</tr>
<tr>
<td>i.e.</td>
<td><em>id est</em> (this is)</td>
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<tr>
<td>ISEGI</td>
<td>Instituto Superior de Estatística e Gestão de Informação</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<td>IS</td>
<td>Information Systems</td>
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<td>KA</td>
<td>Knowledge Assets</td>
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<td>KM</td>
<td>Knowledge Management</td>
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<td>KS</td>
<td>Knowledge Sharing</td>
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<tr>
<td>OI</td>
<td>Open Innovation</td>
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<td>Op Cit.</td>
<td><em>opere citato</em> (in the work cited)</td>
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<tr>
<td>OSN</td>
<td>Online Social Network</td>
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<tr>
<td>QTC</td>
<td>Quick Transfer Center</td>
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<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
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<tr>
<td>SCA</td>
<td>Social Computing Applications</td>
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<td>SM</td>
<td>Social Media</td>
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<td>SN</td>
<td>Social Networks</td>
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<td>SNs</td>
<td>Social Networking Sites</td>
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<td>TAP</td>
<td>TAP Portugal</td>
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<tr>
<td>TQM</td>
<td>Total Quality Management</td>
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<tr>
<td>UNL</td>
<td>Universidade Nova de Lisboa</td>
</tr>
<tr>
<td>US</td>
<td>United States of America</td>
</tr>
<tr>
<td>VP</td>
<td>Vice President</td>
</tr>
<tr>
<td>WTA</td>
<td>World Travel Awards</td>
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<td>WWW</td>
<td>World Wide Web</td>
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CHAPTER 1 - INTRODUCTION
1. OVERVIEW

This work is about Business Process Management (BPM), more precisely the human side of BPM. This is because we think that although many years have passed and BPM is still an important subject for organizations in all its aspects, we recognize that the next step is closely linked to people. There is a new trend emerging. This is Social BPM (Niehaves, 2011, p. 387; Stuart, 2012, p.3).

To understand what Social BPM is we must previous apprehend and define process and for that we need to go back some years, more precisely to 1776 when Adam Smith described a small pin factory and how productivity increases as result of “a proper division and combination of their different operations.” (Smith, 1776, p.15) This was the beginning of a change in organizational theory and the basis to a revolution from a functional to a process perspective;

And therefore during the XIX and XX centuries much was written about processes and their Reengineering, Design, Modelling, Automation and Redesign. This multiplicity of concepts led to the necessity of managing processes, and a new subject emerged. This is called Business Process Management (BPM) which can be defined as:

- All efforts that an organization undertakes in order to analyze and continually improve their processes (Trkman, 2010, p. 125).
- It promotes business quality, effectiveness and efficiency while striving for innovation and integration with technology. (Harmon, 2010, p.56).

Hammer and Champy (1993, cited in Niehaves, 2011, p. 385) emphasizes that BPM projects can only be effective if BPM teams are made up of people from both inside and outside of the organization. This mixture of expertise add value to BPM by joining implicit knowledge (know-how and skills) with tacit knowledge that lies within an organization and is based on experiences, thoughts and feelings in a given context, and is composed of cognitive components (individual mental models, maps, beliefs, paradigms, and points of view), which can hardly be captured and traded, and as far as BPM is concerned, can be equally or more important than implicit knowledge.

It is, by now widely understood that knowledge creation and sharing, help achieve competitive advantage (Cruz, 2009, p. 486), but it is also true that one of the
world most famous quotes is “knowledge is power”; So getting people to share their knowledge is not always easy and that’s why Bontis (2002, p. 226) highlights the general feelings of the employees, particularly trust, commitment, motivation (human drivers) as having a positive impact on the sharing and knowledge creation process, retention of key people, and ultimately business performance. Moreover, Organizational culture and leadership (organizational drivers) are also valued and may play an important role not only in knowledge creation, but also in BPM success which depend much in this two variables (Rosemann, 2010, p. 109).

Knowledge as basic economic resource takes on a new economic paradigm as unlike previous inputs - capital, land and labour - is not scarce and in some cases is free. But although not being scarce, knowledge doesn’t grow in trees and that’s why the process of knowledge creation has been, in recent years, extensively studied and it is by now understood that organizations cannot create knowledge without individuals (Nonaka, 1995, p. 59). And so, Krogh (2002, p. 88) advocates that organizations should build opportunities for people to realize their individual interests through learning.

Therefore, organizational learning which can be described as a social process where the knowledge held by an individual (learning) or a group (learning) is accessible to all people in the organization who work together and thus learn based on collective experience, is assuming great emphasis and importance (Abel, 2008, p.16).

Thus collaboration is assuming more and more ascendancy both in organizational knowledge (creation, sharing and learning) as in processes. For instance, Bruno (2011, p.3) advocates that to achieve organizational integration it is necessary to foster collaboration among stakeholders, while Hammon (2012, p. 3) emphasizes that knowledge transfer and collaboration is of high importance for new ideas to successfully pass through the innovation process; For Niehaves (2011, p. 385) collaboration plays an important role in BPM and Brocke (2010, p. 568) defends that collaboration change the way BPM is used in organizations mainly in two key areas: collaborative process modelling and collaboration during the execution of the process.

In recent years, due to information systems but mainly to Social Computing we watch the world become social which for Inauen (2012, p. 226) can facilitate knowledge transfer, and consecutively the way organizations learn has changed as well. This is also defended by Liu (2008, p.28) to whom social computing is concerned with the study of social behaviour and social context based on computational systems. For this author social computing allows experimenting, scenario planning, and understanding of behaviour, patterns and potential outcomes (op.cit).
Yet another view\(^2\) on Social Computing refers to systems that support the gathering, representation, processing, use, and dissemination of information that is distributed across social collectivities such as teams, communities, organizations, and markets and the author highlights that the information is not "anonymous" but is significant precisely because it is linked to people, who are in turn linked to other people.

An additional trend emerging related with “social” and collaboration is Social software that according to Schmidt (2009, p. 625) is a new paradigm that is spreading quickly in society, organizations and economics. Crowdsourcing or Enterprise Wikis are forms of social networking that are increasingly taking on greater prominence as organizational learning drivers. Budzise-Weaver (2012, p. 228) defends that crowdsourcing occurs when an entity seeks input from an undefined group of users. For Hammon (2012, p. 163) the crowdsourcer can be the organizations itself, or other user (either internal or external).

In this context, the growing interest towards social interactions within the enterprise is basis for the emerging of a new discipline called Social BPM, which merge BPM with social software (Brambilla, 2012, p.1) and as Schmidt (2009, p. 625) highlights helps overcoming deficiencies of classic BPM approaches.

Unlike BPM, there isn’t a consensual definition of social BPM and although some information exists on internet, there isn’t much scientific literature on the subject. For instance, for Gartner\(^3\) Social BPM is a concept that describes collaboratively designed and iterated processes and for Richardson\(^4\) is a methodology for bringing more and diverse voices into process improvement activities; Gottanka (2012, p. 94) highlights that Social BPM real value comes from using it to influence existing processes, rather than limiting it to the social aspects of design.

According to Bradley\(^5\) learning through combination is the starting point to Social BPM and organizations should understand the impact of social in business process.

In this context, organizations realized that social networking can provide an huge competitive advantage and decided to go social, in its aspects of social computing,

\(^2\) [http://tinyurl.com/bafdy2](http://tinyurl.com/bafdy2) (Due to its massive use, we weren’t able to identify another font either than this one. However we recognize its importance and feel that deserves to be highlighted.)

\(^3\) [http://tinyurl.com/cu9uwz](http://tinyurl.com/cu9uwz)

\(^4\) [http://tinyurl.com/d9zejyn](http://tinyurl.com/d9zejyn)

\(^5\) [http://tinyurl.com/c5kg6dp](http://tinyurl.com/c5kg6dp)
social BPM and social networking in which, the by far, widely most important (Social Network), is Facebook; Nowadays Corporate Facebook is spreading and it’s already considered a valuable tool and each day more and more organizations join Facebook.

So these tools - Crowdsourcing (Enterprise Wikis) and Social Networks (Facebook and Twitter) and these stakeholders (Employees, Customers and Business Experts) can be used by organizations to change and redesign its processes. The question is whether they have already realized that.

2. MAIN GOALS

The main research question to which we intend to get an answer at the end of this research is:

- Can Social BPM in general and use of Social Networking Services (like Facebook) in particularly contribute to BPR success? How?

In addition to the central question of this dissertation, four aspects BUSINESS PROCESS MANAGEMENT (BPM), KNOWLEDGE, SOCIAL COMPUTING and SOCIAL BPM whose importance and intrinsic value matter and as such understanding how these four major themes interact and influence each other, and if they can help organizations optimize their processes is important as well.

We want also to understand the importance of knowledge management, information technologies, social computing and social networks in Business process change.

So, the answer to this question comprised three efforts:

1. A theoretical literature review of the four major themes.
2. Characterization of TAP organization and describe TAP FB implementation and TAP communication process change.
3. Make Business Process models of three forms of TAP customer service (Post Mail, Contact center and Facebook) and analyze them in order to see differences.

The first effort involved a theoretical review of the literature on the subject with the objectives of:

1. Understanding what are BP and a process-centric organization define and conceptualize Business Process Management (BPM) its lifecycle and the value it can add to organizations.

6 As of May 2012, Facebook has over 900 million active users, more than half of them using Facebook on a mobile device (http://en.wikipedia.org/wiki/Facebook)
2. Defining Knowledge and its associated concepts such as Knowledge Management, Knowledge Sharing and Knowledge creation and how they can help organizations change their processes.

3. Characterizing Social Computing enumerating tools of social computing and explaining how they can help innovation process. Also Open Innovation and Crowdsourcing will be defined.

4. Describing Social BPM process and how it can help bring diverse voices to the process change by the use of social networks, and help achieve a competitive advantage. We will also approach change management.

In this context there was a documentary research around the central theme - social BPM - and associated themes: business process management, knowledge management, social computing and social networks, which were used to define queries to the online databases (B-on, ScienceDirect, Web of Knowledge, Emerald, among others) and web search engines like Google, Google books and Google scholar.

Alongside was made a research on TAP, using mostly their various websites, including the TAP Journal and the company's historical archives.

Finally three models of TAP communication process were made (Post Mail, Contact Center and Facebook).

3. **THESIS STRUCTURE**

This thesis is organized into five chapters, as described:

- The first, it is introductory and focuses on all aspects of the theme and relevance of their study, research questions and objectives.
- Second chapter includes a literature review, which will help defining and understanding the four major themes Business Process Management, Knowledge (covering the process of Creating and Sharing), Social Computing and finally Social BPM, which includes also social networking.
- In the third chapter we will present the methodology used in this study, referring research strategy and methods used for data collection and analysis.
- Fourth chapter will be used to describe organization object of this study and to discuss some study findings.
- Finally in fifth chapter, we will expose the study conclusion, limitations and recommendations for future work.
In order to facilitate reading and understanding, the chapters are divided into sub-chapters, as detailed in this dissertation index.

This chapter was used to expose the central question of this research as well as its objectives and identify the structure and organization of this dissertation.
1. BUSINESS PROCESS MANAGEMENT (BPM)

1.1. PROCESS-CENTRIC ORGANIZATIONS

Like everything else, organizations have also been changing over times. The embryonic form of organizations (from XV to XVIII centuries) was mostly composed of artisanal manufactures and employees (artisans) who managed their time and own work which most of the times was made at their own houses (Farr, 2000, p. 46).

With Industrial Revolution (1750-1850) “organizations became organizations”, first with the introduction of coal and the joining of small groups of employees which start small manufacturing; by that time production depended much of worker skills and wasn’t standardized. After 1850 with the appearance of electric power, factories emerge and with them the ability to predict and organize the work. These were the times of mass production and the rise of two important roles: Boss who held the control and created the standard and Employees who were ruled by them.

During the XIX and XX centuries, the increasing number of factories and trade development led to the need for very effective mechanisms for management and control, which were incompatible with low efficiency organizations. It was in this scenario that classical theories of organizations emerged.

The first (and perhaps the most important one) was suggested by Taylor (1856-1915) who in his book - The scientific Management (1911) – postulated that organizations should divide responsibilities and tasks between workers and management in order to achieve highest Productivity\(^7\), Efficiency\(^8\) and Effectiveness\(^9\).

Fayol (1841-1925) suggested in his book - General and Industrial Management (1916) – that the best model for managing an organization depended on rules, laws and principles that should support the management function. The principles advocated by Fayol reinforced the importance of unity of command and execution linked to a strong hierarchical chain which is governed by a high level of planning, organization, coordination and control.

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\(^7\) Productivity is the relationship between the output generated by a production or service system and the input provided to create this output (Prokopenko, 1987 p.3).

\(^8\) Efficiency is a ratio that reflects a comparison of outputs accomplished to the costs incurred for accomplish these goals (Lusthaus, 2002 p. 114).

\(^9\) Effectiveness is the extent to which an organization is able to fulfill its goals (Lusthaus, 2002 p. 109).
Max Weber (1864-1920) in his posthumous book - Economy and Society (1922) - introduced an organizational management model based on Rational-Legal Authority and founded on rules that legitimize the power authority. According to Weber the setting of rules and bureaucratic procedures are the basis for a proper functioning of organizations.

This model, proposed by Taylor, developed by Fayol and later by Max Weber, corresponds to the design of Mechanistic Organizations which according to Gitman (2009, p. 190) are characterized

"by a relatively high degree of job specialization, rigid departmentalization, many layers of management (particularly middle management), narrow spans of control, centralizes decision making, and a long chain of command."

McMillan (2004, p.49) defends that this type of organization is suitable for stable environments but according to Hellriegel, (2007, p. 436) it offers some problems, since employees who only perform very routine and simple jobs that require few skills, in the end become bored and frustrated, which results in high turnover and high absenteeism and consequently in low quality and productivity.

Current competitive challenges induced by globalization and advances in information technology have forced companies to focus on managing customer relationships, and in particular customer satisfaction (Stefanou, 2003, p. 617). Thus, by the end of XX century, a new form of organization started rising; this type of organization, designated organic organizations, is more suitable for highly changeable environment requiring staff that could make decisions quickly to adapt to this change (O'Connor, 2009, p. 107); and it is based on the principle that organizations are living organisms that grow with the needs of their stakeholders (Mole, 2003, p. 24).

This led to major changes in organizations and, although functional and organic organizations continue to be the most common model, in last decades organizations have started to change the way they manage and switch from a functional perspective to a “process-centric” perspective (Munstermann, 2010, p. 29) which for Wolf (2004 quoted in Flores, 2011, p. 106) is a company that is organized, structured, measured, and managed in terms of business processes and according to Harmon (2003, p. 1) is

"an organization whose managers conceptualize it as a set of business processes and place their primary emphasis on maximizing the efficiency of processes, and not on maximizing the efficiency of departmental or functional units. In effect, departments or functions contribute employees, knowledge and management skills to processes."
And so in this XXI century processes are achieving a high importance; to understand it we need to know what a process and a business process are.

### 1.2. Process and Business Process

The most basic definition states that a process is a set of inputs that are used to produce an output; However, as it is clear from the definition itself, this is a production process and Shewhart (1931 quoted in Palmberg, 2010, p. 95) was one of the first to argue for process control in favour of product control; For Harrington (1991, p. x), “during the 80s, most companies focused their major efforts on correcting and improving their production processes (...) and as a result business processes became the major cost factor in our companies.”

So more important than defining process, we need to understand what a business process is and how business processes can be managed.

**Business process (BP)** is a concept that has evolved over time:

- A BP takes an input and generates an output, which is of value to the customer. For this author, a business process only works if it generates added value, not internal activity (Hammer, 1993, p. 2).
- A BP is a logical, related, sequential (connected) set of activities that takes an input from a supplier, adds value to it, and produces an output for a customer (Harrington, 1997, p. 1).
- BP are the activities that an organization performs in order to carry out its business and to achieve competitiveness which results in the efficiency achieved by its BP (Henderson, 2000, p. 2).
- BP describes the reason why the organization exists. They describe how the organization takes inputs and resources and creates products and services that create value for customers. Any given business process can be implemented by employees, by software systems, or by some combination of people and systems (Harmon, 2003, p. 4).
- A modern BP is an inherently distributed system: its activities are performed by various employees, on different locations, using a heterogeneous set of IT system. Furthermore, a business process typically crosses the borders of organizational departments and even companies (Smirnov, 2012, p.64).
So in this knowledge economy\textsuperscript{10} we are living in, words like knowledge, customers, value, efficiency, competitiveness, software, IT Systems, employees (or people) and boundaries were successively introduced in BP definition. Organizations understood that they can retrieve knowledge from diverse sources and use it to improve business, which for (Drucker, 2002, p. 5) can be defined as a process that converts an outside resource, namely knowledge, into outside results, namely economic value. Additionally Skrinjar (2008, p. 738) defends that BP represents a core of the functioning of an organization because the company primarily consists of processes, not products or services.

Thus, organizations have been trying to develop a holistic view of processes, systems, structures, and skills that will allow them to respond more quickly and effectively to the demands imposed by the elements of the external environment (Moreno, 2012, p. 205), since BP may involve customers and different departments across the organization which will consume time and resources (Shi, 2008, p. 633).

And with this the rationale for effectiveness or improvement related initiatives began with the need for operational efficiency and has evolved to the need of managing BP; that assumption led to the emergence of a new area of management that is known as Business Process Management (BPM).

1.3. BUSINESS PROCESS MANAGEMENT (BPM)

The roots of BPM can be found in two older and more mature concepts: Business Process Reengineering (BPR) and Total Quality Management (TQM) (Niehaves, 2011, p. 386).

Hammer (1993, p. 2) defines Reengineering “as the fundamental rethink and radical redesign of BP to generate dramatic improvements in critical performance measures - such as cost, quality, service and speed”, while Pike (1998, p. 24) advocates that Total Quality Management (TQM) is a corporate business management philosophy which recognizes that customer needs and business goals are inseparable and that only by aligning business processes with systems can efficiency and effectiveness be maximized, which will promote excellence, prevent errors and ensure that every aspect of the business is aligned to customer needs and the advancement of business goals without duplication or unnecessary effort (Torkildsen, 2006, p. 415).

\textsuperscript{10} Powell (2004, p.11) defines the knowledge economy as production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence.
What unites BPR and BPM is the knowledge and technology associated with both, being the main difference the fact that the first one focuses on radical changes whereas the second one is based on continuous improvement, as it is apparent in some definitions, such as:

- Lee (1998, p. 219) defends that BPM is a managerial approach that helps organizations to measure their core processes, analyze what works and what doesn’t and improve them or in simple terms helps eliminate waste and add value;
- Van der Aalst (2003, p. 4) defines BPM as “supporting business processes using methods, techniques, and software to design, enact, control, and analyze operational processes involving humans, organizations, applications, documents and other sources of information.”
- Rohloff (2011, p. 383) advocates that BPM is a “management practice that encompasses all activities of identification, definition, analysis, design, execution, monitoring & measurement, and continuous improvement of BP.”
- Krockel (2011, p. 34) supports that BPM “encompasses and integrates a variety of concepts and methods for strategic alignment and operational improvement of BP in enterprises.”

Thus, BPM is a management approach that applies concepts of both radical and incremental change and of which there are many different definitions; however there is a common denominator since many of them include words like support, help, continuous improving and strategic alignment but BPM itself is a process that must be implemented and executed inside an organization and as a process it has his own lifecycle.

Kannengiesser (2008, p. 31) proposes that the BPM lifecycle is an iterative, continuous approach to managing business activities, aiming to enable adaptation to changes in the business environment through redesign of the process; There are many views of the BPM lifecycle. For Van der Aalst (2003, p. 5) it is composed of four phases: Diagnosis, Process Design, System Configuration and Process enactment; whereas Scheer (2010, p. 241) defends that a typical BPM process follows the four phases and every phase consists of many typical work steps or activities related to the expected outcome and result of each phase. For this author (see Figure 1), the phases that composed the BPM lifecycle are:
• Business process strategy which aims at aligning BP with organization strategy; the commitment of top management at this stage is critical for the successful implementation of BPM.

• Business process design which includes the design, analysis and optimization of the process as part of a continuous improvement cycle.

• Business process implementation whose focus is the transformation of daily process, the associated change in employee roles and responsibilities, and the seamless mapping of business processes and business requirements into operating application software with minimum information loss.

• Business process controlling enables qualitative and quantitative measures to be compared with targets, thus revealing areas with potential for improvement and greater productivity. (op.cit)

Figure 1 – BPM Lifecycle

By now it is clearly assumed that BPM enables companies to gain from efficiency enhancements and to adapt quickly and flexibly to a changing world (Petzmann, 2007, p. 104), since BPM is a strategy for managing and improving the performance of the business through continuous optimization of BP in a closed-loop cycle of modelling, execution and measurement (Chow, 2007, p. 39).
In summary, this changing world we are living in, led to changes not only in Organizations, BP and BPM; The basic economic resource also changed and capital, land and labour are no longer the factors of production that prevail; Drucker (1993, p.21) defends that the new economic resource “is, and will be knowledge. (...) Now the value is created by productivity and innovation, any of these applications of knowledge at work. (...) and social groups leaders of the knowledge society are knowledge workers11 and for Damjanovic (2009, p. 496) the future business process realms will be certainly grounded on ontological knowledge with the ability to reuse existing knowledge.

11 The man or woman who applies productive work ideas, concepts and information rather than manual skill or brawn (Drucker, 1992, p. 264).
2. KNOWLEDGE

2.1. KNOWLEDGE

At present knowledge is the engine of economic growth and social development and for Dovey (2009, p. 319) the global knowledge economy presents fresh operational realities and, by implication, requires transformations in the knowledge, skills, attitudes, values and other collective resources of the firm and according to Seethamraju (2009, p. 926) BP improvement is a complex, knowledge-intensive, collaborative process that consists of a set of coordinated, contextualized knowledge management (KM) processes.

Scientific literature is full with knowledge definitions. The most famous is perhaps the one introduced by Plato and later adapted by Nonaka (1995, p. 21), which defines knowledge “as justified true belief.” More recently Barachini (2009, p. 98) argues that knowledge is something private, personal and intuitive, being closely linked to beliefs and values of the individual. As for Davenport (1998, p. 5) knowledge is

“A fluid mix of framed experience, values, contextual information and deep understanding that allows a limitation for evaluating and incorporating new experiences and information. It originates and is applied in people’s minds.”

The fact that knowledge resides in people, as it results from the definition proposed by Davenport (op.cit), implies that the process of knowledge creation occurs in people’s minds (Stam, 2007, p. 45), whereas Nonaka (2000, p. 7) believes that knowledge is created through interactions between individuals or between individuals and their environment, while the organizational knowledge arises from the interactions between the two different types of knowledge - explicit and tacit knowledge - a transformation called knowledge conversion.

Explicit knowledge can be expressed in formal and systematic language and shared in the form of data, scientific formulas, specifications, manuals (Nonaka, 2000, p. 7) and, according to Smith (2001, p. 315), can also be called “know-what”, it is technical and requires a level of academic knowledge or understanding that is gained through formal education, or structured study.

On the other hand there is tacit knowledge that, according to Harlow (2008, p. 151), is internal in nature and is relatively hard to code and extract, since it is based on experience, thinking, and feelings in a specific context, and it comprises both cognitive and technical components. For Popadiuk (2006, p. 306), the cognitive component
refers to an individual’s mental models, maps, beliefs, paradigms, and viewpoints. The technical component refers to concrete “know-how” and skills that apply to a specific context.

Pablos (2003, p. 62) argues that the process of knowledge conversion results in valuable resources that are designated as organizational knowledge, which can be analyzed in two ways: static and dynamic. Both perspectives are complementary and contribute to build a holistic view of the company, and for Magalhães (2005, p 28.) organizational knowledge (and hence the organization) is a holistic and complex issue which according to Kok (2007, p. 184) can be viewed in one dimension intangible (tacit) and material (explicit) which are not mutually exclusive but are complementary to each other.

At present, Knowledge is globally recognized as a source of competitive advantage (Meritum Project, 2001, p. 5; Cruz, 2009, p. 486) but it is also recognized that to achieve this competitive advantage, companies must know how to manage the knowledge.

2.2. KNOWLEDGE MANAGEMENT

There is, today, a widespread recognition that effective management of knowledge is essential for the success of modern enterprises (Perez, 2003, p. 84, Holste, 2010, p. 128). This is consistently stated in some of the various definitions of Knowledge Management (KM) found in the literature, among which are:

- KM is a set of techniques that can be used to increase the value of organization from knowledge assets (Amaral, 2004, p. 74);
- KM is a set of initiatives aimed at stimulating the deliberate process of knowledge creation in order to allow innovation (Stam, 2007, p. 35);
- KM is "a conscious strategy of getting the right knowledge to the right people at the right time and help people share and put information into action in order to improve organizational competitiveness." (Lindblom, 2010, p. 181).

There are also several models used to explain how organizations should develop and manage their knowledge, such as the model proposed by Cabrita (2009, p. 57), for whom knowledge management is a profoundly social process that must take into account social and human factors. This author defends that to manage their knowledge organizations should develop a set of processes ranging from exploration and collection of knowledge, within the context in which they operate, to its
application. This sequential chain of processes is commonly referred as Knowledge Lifecycle.

Holsapple and Singh described another model, called the knowledge chain model (see Figure 2), whose basic premise is based on the assumption that the ways organizations learn and project knowledge are important determinants of the viability of the organization and of its success in a competitive environment (Holsapple, 2001, p. 80). For this author, this model allows organizations to systematically evaluate their practices for each one of the nine activities – five primary activities\(^\text{12}\) - Acquisition, Selection, Creation, Assimilation and Emission - and four secondary activities\(^\text{13}\) - Leadership, Coordination, Control and Measurement - identifying where there are deficiencies or opportunities in organizations conduct of KM, so that they can better understand KM linkages to organizational performance, in order to improve productivity, agility, innovation, or reputation (Holsapple, 2005, p. 3).

![Figure 2 - Knowledge Chain model](source: Holsapple (2001, p. 80). Adaptation by the Author)

And so, as Chatzoglou (2009, p. 258) notes, that KM has gained ground on the agenda of management, mainly because of organizational knowledge, which is increasingly recognized as a source of competitive advantage, whereas Gates (2009, p. 112) argues that by structuring the management and sharing of this knowledge, the organization can develop key competencies that are difficult to imitate, and thereby gain a sustainable competitive advantage.

\(^{12}\) Primary activities those that manipulate knowledge within an episode (Holsapple, 2007, p. 28).

\(^{13}\) Secondary activities are those that orchestrate the KM episodes (Holsapple, 2007, p. 28).
2.3. Knowledge Creation

Knowledge is undoubtedly the most important asset that an organization has, since in the knowledge economy, it is a major reason for the existence of organizations (Stam, 2007, p. 34; Powell, 2008, p. 5). However, knowledge is created only by individuals, since an organization cannot create knowledge by itself, without people (Nonaka, 1995, p. 85; Sabherwal, 2005, p. 535; Roslender, 2008, p. 151) whereby organizational knowledge creation should be understood as a process that organizationally amplifies the knowledge created by individuals and crystallizes it at the group level through dialogue, discussion, experience sharing, or observation (Nonaka, 2000, p. 9).

To understand how organizations can dynamically create knowledge, Nonaka (2000, p. 14) proposes the model of knowledge creation known as “The SECI process” which is the process of knowledge creation resulting from the conversion of tacit and explicit knowledge;

The SECI\(^{14}\) model was initially proposed by Nonaka (1995, p. 56) and it has continued to be improved until now; that’s why it is still an important reference to explain the process of organizational knowledge creation. The authors proposed four models of conversion of knowledge:

- Socialization - is the sharing of experiences, mental models and technical skills among people, thus creating tacit knowledge (Chen, 2008, p. 261). The direct sharing of experience and observation, learning, imitation and sharing of ideas promote the socialization process, encouraging the harmonization among the different models of knowledge;
- Externalization - is the conversion of tacit knowledge into explicit. When tacit knowledge is made explicit, more knowledge is formed, allowing it to be shared with others, and assuming it as a basis for new knowledge (Nonaka, 2000, p. 9);
- Combination - consists in the conversion of explicit knowledge into more complex and systematic explicit knowledge. This is done, for example, at meetings where formal documentation is submitted and recorded in the minutes of the meeting (Johanson, 2009, p. 523);

\(^{14}\) Acronym resulting from the initials of the four modes of knowledge conversion - Socialization, Externalization, Combination and Internalization.
• Internalization - is to learn by doing. The knowledge created is shared throughout the organization being the knowledge internalized by individuals as tacit or technical know-how and making it into valuable assets (Popadiuk, 2006, p. 308).

For Nonaka (2000, p. 14), \textit{ba} is the second element needed in the process. It is defined by the author as the context shared by all who interact in the process of knowledge creation. Finally, knowledge cannot be created without Knowledge Assets (KA), which are at the same time the input to the knowledge creation process and the output in the form of new knowledge. Nonaka (2007, p. 377) defines KA as the input and output of the SECI process, and adds that a firm creates knowledge through interactions with the environment as an ecosystem of knowledge and multi-layered \textit{ba}.

2.4. **Knowledge Sharing**

Knowledge Sharing (KS) is an important process of KM, being considered as a key activity of knowledge management (Søndergaard, 2007, p. 424) and a process that should not be separated from decisions of the day-to-day business management (Saenz, 2009, p. 23). It is also considered of vital importance to organizations (Renzl, 2006, p. 206).

In knowledge sharing there are a large number of definitions in the scientific literature, too. Thus, for Lin (2007, p 315), KS can be defined as a social interaction culture, involving the exchange of employee knowledge, experiences, and skills through the whole department or organization. As to Christensen (2007, p. 37), KS is defined as the process of identifying existing and accessible knowledge, in order to transfer and to apply this knowledge to solve specific tasks better, faster and cheaper than they would otherwise have been solved.

However, despite the advantages that may result from the creation and sharing of knowledge, and facilities which may result from the different ways to do this, getting people to share their knowledge is not always easy. Barachini (2009, p. 98) notes that people do not offer their expertise free of charge, and that’s why the sharing of knowledge is often seen as a commercial transaction, which according to Krogh (2002, p. 86) can be costly (especially the sharing of tacit knowledge).

Cabrita (2009, p. 54) argues that organizations must determine firstly how to develop and share the "professional intellect" among their members and, secondly, how to maintain motivation, by galvanizing the entire organization, so that it can
increase its knowledge base. The same is highlighted in the RICARDIS project (European Commission, 2006, p. 41), which states that, for people to be productive there must be a sense of shared objectives, culture, learning, effort and information, or, in other words, there must be a shared sense of direction and purpose, a culture aligned with the competitive strategies of organizations. It is still necessary that people not only feel they are respected but feel confident about the future and motivated to maintain an attitude that seeks to add value, as well.

In literature, several authors (Bontis, 1999; Krogh, 2002; Renzl, 2006) argue for the existence of some factors as being fundamental to the process of knowledge sharing. These factors are called facilitators (or drivers) and can be divided into two categories: i) human facilitators which include trust\(^{15}\), commitment\(^{16}\), motivation\(^{17}\), and ii) organizational facilitators which include leadership and organizational culture.

In addition to being facilitators of knowledge sharing, leadership and culture are also recognized as important aspects in the success of BPM. Therefore, they deserve to be highlighted:

- According to Lin (2007, p. 468), leadership can increase the incentive to share knowledge, but, so that it can occur, it should first be established a harmonious atmosphere that fosters interpersonal congruence among employees and encourages employees to work closely together. The same is true for BPM and is highlighted by Hammer (2010, p.9), for whom the absolute sine qua non for effective deployment of process management is engaged, knowledgeable, and passionate senior executive leadership of the effort.

- Organizational Culture is defined as the shared values, beliefs and practices of the people in the organization and it is reflected in the visible aspects of the organization, like its mission and espoused values. But, for McDermott (2001, p. 77), organizational culture exists at a deeper level as well, embedded in the

\(^{15}\) Trust in the workplace has been shown to have a strong and robust influence on a variety of organizational phenomena, including job satisfaction, stress, organizational commitment and productivity (Renzl, 2006, p. 210).

\(^{16}\) Commitment can be referred to “as the willingness of social actors to give their energy and loyalty to a social system or an effective attachment to an organization apart from the purely instrumental worth of the relationship” (Buchanan, 1974 cited in Rashid, 2003, p. 713).

\(^{17}\) Motivation is a tendency or force to act, which may derive from i) intrinsic factors (such as having a strong need to discover new things or want to achieve something) and from ii) extrinsic factors such as financial rewards (Andriessen, 2006, p. 8).
way people act, in what they expect of each other and in how they make sense of each other’s actions. As for the BPM perspective, Rosemann (2010, p. 119) defends that culture, as BPM core element, refers to the collective values and beliefs that shape process-related attitudes and to the behaviour to improve business performance, since culture is about creating a facilitating environment that complements the various BPM initiatives.

So, organizational leadership and culture are by now understood as important drivers both of KS and BPM. And, it is also clear that knowledge (and its associated concepts) has a major role in organizations, which by now have realized that it is their most important asset. But, organizations have also understood that processes, business processes and their management can help achieve competitive advantage and start changing to a process-centric approach. Together with the introduction and the development of these concepts, organizations can face the emergence and massification of information systems.

And, although face-to-face interactions are often the primary method for transferring knowledge (Nonaka, 1995, p. 85; Holste, 2010, p. 130), the use of Information systems to share knowledge are highlighted by several authors (Wenger, 2004; Chatzoglou, 2009; Garcia, 2010; Rah, 2010) and are gaining some prominence. These technologies include blogs, wikis, bookmarking, tagging, intranet and internet, editor of real-time collaboration, social networks, among others.

Due to its importance, they will be better described in the next chapter.
3. SOCIAL COMPUTING

3.1. OPEN INNOVATION

The idea that knowledge can help achieve competitive advantage connected to the advances in internet services, has led companies to consider their use to capture knowledge outside its boundaries (Antikainen, 2010, p. 101); organizations realized that in a world of widely distributed knowledge, they do not have to rely entirely on their own research, but should open the innovation to all the employees of the organization, to providers and customers (Carbone, 2012, p. 8929) since it could be also an inexpensive way to gain knowledge (Davis, 2011, p. 92).

Organizations also realize that innovation is critical for them to compete in a knowledge/creative economy (Ribiere, 2010, p.99) and so a new form of innovation arise, called Open Innovation (OI); For Chesbrough (2006, p.1) OI is a paradigm that assumes that organizations can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology; Carbone (2012, p. 8930) highlights that the OI paradigm opens up the classical funnel to encompass flows of technology and ideas within and outside the organization which for Seybold (2006, p. 7) occurs when customers lead the design of organizations business processes, products, services, and business models and for Sloane (2011, p. 3) can speed up processes, reduce costs, introduce more innovative ideas and reduce time to market.

Organizations can open up their innovation process on two dimensions: inbound and outbound (Lichtenthaler, 2009; West, 2009); for Schroll (2011, p. 491) the distinction between inbound and outbound activities is important since inbound activities can significantly reduce the R&D intensity of a company. Thus according to Gassman (2010, p. 214) there are three types of OI approaches:

1. The outside-in process which enables organizations to enrich their own knowledge base through the integration of suppliers, customers, and external knowledge and consequently increase their innovativeness capacity.
2. The inside-out process that allows the external exploitation of ideas in different markets, selling and multiplying technology by direct ideas to the external environment.
3. The coupled process that uses and links both previous approaches by fostering partnerships and working in alliances with complementary companies during which “give and take” are crucial for success.

Although we recognize the importance of these three types of OI, we will focus on the first and in particularly in Crowdsourcing (Sloane, 2011, p. 3).

3.2. Crowdsourcing

The basis of crowdsourcing lies on the assumption that knowledge transfer and collaboration is of high importance for new ideas to successfully pass through the innovation process (Hammon, 2012, p. 163) and on the crowd concept that in this context is a population outside the focal agent’s formal organization that can be used to solve a problem or to create value (Afuah, 2012, p. 365, Hammon, 2012, p. 163).

Thus, over the past years crowdsourcing “evolved from its humble beginnings as isolate purpose-built initiatives to a growth industry employing over 2 million knowledge workers” (Vukovic, 2010, p. 425); Afuah (2012, p. 365) defines crowdsourcing as a preferred mechanism for solving problems for which the solution rests on tacit knowledge that resides outside the focal agent’s knowledge neighbourhood, whereas for Hammon (2012, p. 163) crowdsourcing is the act of outsourcing tasks originally performed inside an organization, or assigned externally in form of a business relationship, to an undefined large, heterogeneous mass of potential actors;

And for Estellés-Arolas (2012, p. 10) crowdsourcing can be seen as:

“a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task. The undertaking of the task, of variable complexity and modularity, and in which the crowd should participate bringing their work, money, knowledge and/or experience, always entails mutual benefit. The user will receive the satisfaction of a given type of need, be it economic, social recognition, self-esteem, or the development of individual skills, while the crowdsourcer\(^\text{18}\) will obtain and utilize to their advantage that what the user has brought to the venture, whose form will depend on the type of activity undertaken.” (op. cit)

As results from Estellés-Arolas definition there are two types of approaches that have been proposed in order to promote the involvement of the crowd; according to Vukovic (2010, p. 523) the first approach relies on motivating humans to share

\(^{18}\) Crowdsourcer is the initiator of the crowdsourcing activity (Estellés-Arolas, 2012, p. 11).
knowledge and, by that, either gain credibility, or obtain the equivalent information. The other approach provides explicit and tangible incentives to people for their work (e.g., monetary prizes).

According to Hammon (2012, p. 3) a number of large traditional organizations have already successfully used such an approach, such as Starbucks, Procter and Gamble, IBM, Google (through “Google labs”) and Cisco and some relatively new companies based their business model on crowdsourcing like Innocentive.com, threadless.com, and even Wikipedia which for Budzise-Weaver (2012, p. 229) is one of the most popular examples of crowdsourcing.

Launched in 2001, Wikipedia as become the world’s largest wiki and online encyclopedia (Xiao, 2012, p. 360) and in July 2012 their English version had almost 4.000.000 articles; The basis of Wikipedia and Wiki philosophy is that everybody is encouraged to contribute to a collaboratively authored document and everyone should be allowed to edit everything (Korsgaard, 2009, p. 85) and within these principles users collaboratively develop the world’s largest encyclopedia by disclosing their knowledge and creating value for the general public (Cress, 2008, p. 107).

So in this knowledge economy, Wikis are becoming more and more important since according to Wahlroos (2010, p. 10) wiki is often connected with the principle of “wisdom of the crowd”, reflecting the idea of people collecting and aggregating enough data until there is a consistently reliable answer and for West (2009, p. 3) wikis are designed to help groups collaborate, share, and build online content, and are especially useful for distance learners who are separated by time and place; Cress (2008, p. 106) highlights that wikis are tools that can support learning and knowledge building, which Kendall (2008, p. 1), in the past years, has proclaimed as an information management solution for a number of organizational activities thus playing an increasing role in organizational knowledge management (Moskaliuk, 2009, p. 21; Standing, 2011, p. 287).

In this context some organizations have started developing their own wikis as they have recognized that it offer to organizations tremendous potential (O’Leary, 2008, p. 41) and make them the primary mean to capture institutional knowledge (Grudin, 2010, p. 4) because companies need efficient and reliable ways of communicating and transferring information and knowledge among their employees (Trkman, 2009, p. 1087) and according to Majchrzak (2006, p. 104) enterprise wikis enhanced reputation, made work easier and helped organization improve its processes.
However it is also acknowledged that enterprise wikis present some limitations. For instance, Fichter (2005, p. 49) advise that Wikis work better in organizational cultures with a high level of trust while Stocker (2012, p. 335) highlights that employees only recognized the value of the wiki after having used it intensively; the lack of motivation and a culture that is not open to sharing of knowledge are major factors that block collaboration and knowledge sharing also in organizational wikis (Standing, 2011, p. 292; Stocker, 2012, p. 336).

Thus in recent years, organizations have also understood that Social Networks (SN) and Social Networking Sites (SNs) represent a new stage in the evolution of the internet and according to Davis (2011, p. 92) based on the balanced integration of diverse services provided by human agents and machines over the World Wide Web, resulted that the very concept of crowdsourcing has evolved to crowdservicing which allows the creation of platforms on which new applications and even enterprises can be built. For this author crowdservicing also allows to undertake complex, Web-scale problem solving endeavours by flexibly connecting billions of loosely coupled computational agents or Web services as well as human agents (Davis, 2011, p. 92).

It is now recognize that SN can be used to present organizational information to interested parties, but also to gather information (Smith, 2010, p. 491). Sites like LinkedIn, MySpace, Twitter and Facebook despite the differences presented when compared to crowdsourcing can be considered as an important tool for knowledge management, internal and external communication and for Social BPM, through the use of social computing.

3.3. **SOCIAL COMPUTING**

Ten years ago, internet was leaving its initial chapter of development and was on the vertex of change and innovation itself (Skinner, 2010, p. 407). At present times, internet has become an essential component in the navigation of everyday life and perhaps the biggest transformation was in the way people socialize and seek-out and spread information (Hughes, 2012, p. 561), since, in this information age, society is more connected than ever before and, with a simple click of a mouse, a post, a tweet, or an email, people can be in touch with friends and colleagues from across the street to across the globe (Gayed, 2012, p.1).

Thus, Azua (2009, p.8) highlights that the advent of computers - particularly personal computers - marked the high point of the information age and laid the foundation for the social age, which, for Wriston (2004, p. 321), has changed the way
people work, shop and even spend their leisure time, but also the way in which organizations operate, and even changing the nature of diplomacy, national politics, government, international relations and business.

The growth of the Internet has been phenomenal: the numbers of hosts, the number of users, and the amount of traffic have been doubling approximately every year since 1988 (Mason, 2000, p. 1045) and, in recent years, has become one of people’s main information sources and the underpinning of a large number of new applications and services that facilitate collective action and social online interaction with rich exchange of multimedia information and evolution of aggregate knowledge have come to dominate the Web (Parameswaran, 2007, p. 762).

The emergence of Internet leads to a new concept and its substantial growth. The term is social computing which according to Wang (2012, p. 122) was first described, in 1994, by Schuler, as any type of computing application in which software serves as a focus for a social relation. Zhang (2012, p. 161) defends that social computing can be broadly stated as taking a computational approach to the study and modelling of social interactions and communications, as well as developing information and communication technologies to support those interactions.

Thus, technologies have provided new opportunities for creating and sharing knowledge and interacting with others (Bennett, 2012, p. 524), mainly due to the rapid evolution of blogs, wikis, social networking and bookmarking. Their related applications offer rich user experiences and the process of knowing become a community-based, collaborative endeavour.

But technologies aren’t just changing people’s life. Technologies are also changing work environment and organizations as they can help employees to explore their knowledge and relations, once, at work, social networking websites and other IT based resources, in particular, have proved to be quite effective in improving exchange of information and collaboration opportunities among employees (Ferron, 2011, p. 68; Stocker, 2012, p. 317).

Schmidt (2009, p.625) defends that social software is software that supports the production of digital goods such as content, knowledge, software by combining the contributions of individuals that does not necessarily know each other and are a-priori not organized in a hierarchy. For this author Social Software follows a more egalitarian

19 Collaboration is the process whereby individuals and/or groups work together on a practical endeavour (Scale, 2009, p. 11).
and meritocratic approach and trust and reputation play a crucial role in the use of social software instead of authority granted by the top management (op.cit).

According to Bennett (2012, p. 524) these technologies can also be called “social media” and Web 2.0, which O’Reilly (cited in Levy, 2009, p. 121) defines as the business revolution in the computer industry, caused by the move to the internet as platform, and by the attempt to understand the rules for success on that new platform. It encompasses tools - Social Computing Applications (SCA) - that allow individual and collective publishing. Pascu, (2008, p. 39) highlights that a particular powerful characteristic of SCA is that users are becoming much more deeply involved in the process of production and service innovation since it can serve as intermediaries for social relations and are characterized by online community formation and user content creation (Nov, 2012, p. 118).

SCA can also represent a set of opportunities, since it can empower individual users with relatively low technological sophistication, when using the Web (Parameswaran, 2007, p. 763) allowing them to discuss various topics in online forums, to share their thoughts in blogs\(^{20}\), to share photos, videos, bookmarks\(^{21}\), content sites such as Wikipedia, Flickr, YouTube and to connect with friends through social networks\(^{22}\) sites such as MySpace, Twitter and Facebook, (Vassileva, 2012, p. 177, Nov, 2012, p.118)

\(^{20}\) Blog is short word for weblog which was first used by John Barger (1997), and was defined as ‘a web page where a blogger logs all other web pages it finds interesting. As a log on the web, it is kept mostly in a reverse chronological order with the latest entry at the top of the web page and it easily refers to other Internet locations via hyperlinks (Du, 2006, p. 790).

\(^{21}\) Bookmarks (or favourites, hotlists) are popular strategies to relocate interesting websites on the WWW by creating a personalized URL repository (Benz, 2007, p. 4574).

\(^{22}\) See sub-chapter 3.3. Social Computing of this dissertation.
4. SOCIAL BPM

4.1. SOCIAL NETWORKING

Social Network (SN) sometimes also referred to as Social Media (SM), is a methodological form of analysis that is based on mathematical, psychological, anthropological, and sociological applications of interaction and communication (Koschade, 2005, p. 3), which focuses on the analysis of relationships among social entities. The concept of a network emphasizes the fact that individuals are linked by ties to other individuals, each of whom in turn is linked to a few, some, or many others, and so on, and the term social network refers to the set of actors and the relations they have (Favre, 2011, p. 11). SN can link organizations, groups and individuals throughout the world and, as such, it has become an important capability in many organizations. It can also been used to reveal hidden dynamics that shape social, organizational and economic life (Sozen, 2012, p. 488).

Yet, with the advent of internet a new dimension was added to the concept of social network; this is called Online Social Network (OSN) and can be defined as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (Boyd, 2007, p. 211). Online social networks are networks extracted from e-mail logs, blogs and other web pages or social software, such as Facebook, LinkedIn or Twitter which can also be used to extract communication social networks (Zehetner, 2010, p. 10) and that can have tremendous potential that organizations shouldn’t ignore (Waters, 2009, p. 102).

Since their introduction, social networking sites (SNs) have attracted hundreds of millions of users, many of whom have integrated SNs into their daily lives to communicate with friends, send e-mails, solicit opinions or votes, organize events, spread ideas, find jobs, and more (Traud, 2012, p. 4165). The increasing number of users has led enterprises to consider it as the most preferred marketing driver among business environment, particularly due to its cost reducing effects (Kirtiş, 2011, p. 261).

Thus, at present, there are many SNs that vary only in their scope, audience and features. Some of the most well-known and largest (in users number) SNs are LinkedIn, Twitter and Facebook.
4.1.1. LinkedIn

LinkedIn was created in 2003 and is primarily branded as a social network for employment and professional connections (Baker, 2012, p. 7), allowing connections with colleagues, clients and potential employers to accomplish professional goals (Mabry, 2010, p. 3). By the end of July 2012, it had 175 million members in over 200 countries and territories (LinkedIn, 2012). LinkedIn supports keyword-based search for each of the categories of people, jobs, companies, answers, inbox, and groups and also supports advanced search of the people, jobs, and answers categories (Kim, 2011, p. 220); LinkedIn allows users to see how they are linked to others and how many degrees of separation they are from a ‘target’ member possibly an employer they would like to meet (Kietzmann, 2011, p. 246).

4.1.2. Twitter

Twitter was created in 2006 and it allows users to post tweets or updates to a network of other users, since users can also follow other Twitter users to see what they are doing or search for topics to see a list of what all Twitter users are tweeting. It is centred in exchanging short messages that are mostly real-time status updates, so as to create an ambient awareness of issues (Kietzmann, 2011, p. 242). In March 2012 had 500 million active users and generating over 340 million tweets daily (Twitter, 2012) which added to the ability to search in real time has provided a valuable tool for advertisers and researchers, when seeking to understand how the public feels about an issue (Mabry, 2010, p.3).

4.1.3. Facebook

Facebook (FB) was created in 2004 and was originally designed to allow students from Harvard University to interact with each other online. From 2004 to 2006, it was expanded to another colleges and universities and, finally, in 2006, Facebook was opened to all users and soon become the biggest SNs, which by the end of June 2012, had an average of 955 million monthly active users and 3,2 billion “likes” and comments generated by Facebook users per day (Facebook, 2012a).

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23 Tweets are text-based, up to 140 characters in length and can be posted via Twitter.com, text messaging, instant messaging, mobile devices or from other third-party clients (Sreenivasan, 2012, p. 26).
Facebook can be defined as a service oriented website that combines several different services, which can be redirected to various groups of interest (Skågeby, 2009, p. 63). According to Facebook (2012a), its mission is:

“to make the world more open and connected. People use Facebook to stay connected with friends and family, to discover what’s going on in the world, and to share and express what matters to them.”

By the creation of a profile in Facebook, users disclose personal information about themselves, such as name, gender, sexual preference, birthday, political and religious views, relationship status, educational status, employment history and more (Qi, 2011, p.76). This amount of information owned by only one entity raised privacy concerns but, at the same time, it revealed a multitude of opportunities and challenges for business. Companies started to recognize the potential of this online community for the development of their brands and to build relationships with key customers (Harris, 2009, p. 26). But according to Schmidt (2009, p. 633) Facebook can also enhance business processes by improving the exchange of knowledge and information and by overcoming deficiencies of classic BPM approaches.

In this context organizations are using SNs to change and improve their processes, bringing to organizations new voices and two new concepts called Crowdsourcing (already described in sub-chapter 3.2. Crowdsourcing), and Social BPM which will be described in the following.

4.2. Social BPM

For Llewellyn (2000, p. 225), one of the goals of BPM is to remove barriers among functional groups, by creating a community of employees linked by membership of a process, which can be made through collaborative tools that support a group of people working together, sharing the ownership of or involvement in that process or project or through social tools (Haber, 2012). But BPM is further characterized by its orientation on processes, customers, values, services, employees, competencies and learning (Neubauer, 2009, p.167) and can also take advantage of the capabilities provided by social software (Erol, 2010, p. 453). For Schmidt (2009, p. 627) the success of enterprises based on social software such as Facebook is based on four routes:

- Weak ties - Social software supports the creation of weak ties that are connections between individuals enabling them to reach information not accessible via strong ties imposed by corporate hierarchy or by team
membership. So they are crucial to improve enterprise agility and innovation because they help to find information not available in the team or department of the individual.

- Wisdom of the crowds - Social software is a mechanism that supports the ideas and for decision and planning problems which do not allow finding the optimal solution, a near-optimal solution can be found by combining as many inputs as possible. There may be some experts that deliver a better solution. However, only a few percentages of the experts are better and in advance, it is not possible to identify those experts.

- Social Production - organizations must be open to capture new ideas from outside and have to cooperate with many different people to combine the best thoughts and create competitive product. Social software offers many possibilities to interact with the customer and partners.

- Service-Dominant Logic - customer does not want a product but the service provided by the product and it is necessary to interact with the customer to provide the service. The customer is not a consumer of value but a co-creator of value. To achieve this vision of collaborative marketing, social software is an important means.

In recent years, social networks have become extremely popular and organizations cannot ignore this phenomenon. In 2012, the five principal SNs have a total of 1.788 million users, from which 901 million are FB users and, since 2007, when Facebook opened its services to organizations, the numbers of pages growth has been exponential and, according to Social Bakers, in 2012, there are approximately 1,6 million pages worldwide.

And so, a new discipline that fuses BPM with social software has emerged. This is Social BPM, whose main purpose, according to Brambilla (2012, p. 1), is to enhance organizational performance through a controlled participation of external

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24 Pages are public profiles that let artists, public figures, businesses, brands, organizations, and non-profits create a presence on Facebook and connect with the Facebook community. When someone likes a page, they’ll see updates from that page in “news feed”. When someone likes or comments on a page post, that activity may be shared with their friends, increasing the page’s exposure and reach (Facebook, 2012b).

25 Socialbakers is a global social media and digital analytics company with customers in 75 countries representing every continent. Socialbakers helps companies measure the effectiveness of their social marketing campaigns across all major networks, Twitter, Facebook, YouTube, LinkedIn and Google+ (SocialBakers.com, 2012).
stakeholders, in order to process design and execution. Lee (2012, p. 378) considers Social BPM a promising tool to improve the performance of an organization, by providing extensible communication tools, informal data handling functions and knowledge based decisions supports. Yet, according to Gottanka (2012, p. 91), Social BPM leverages social networking tools and techniques to extend the reach and impact of the efforts of a process improvement in two key areas – collaborative process modelling and the collaboration during the execution of a process, with the goal of having a lot of different perspectives, such as end users, business analyst and IT involved in modelling processes.

It is also assumed that social software tools and web applications, support communication with stakeholders, when used in business processes, will change the processes themselves (Erol, 2010, p. 465) and, in today’s fast changing business, organizations need to directly deal with stakeholders and adapt the results quickly in the daily business (see Figure 3).

According to Bruno (2011, p. 300), combining a multitude of experiences leads to the best results and to collaboration among stakeholders. Allowing them to communicate, using their own perspectives and languages is a way to achieve
organizational integration. Stakeholder’s experiences can be a valuable resource for organizations and Social Software can help with the collection of this knowledge, but, according to Erol (2010, p. 466),

“despite the potential that social BPM has already demonstrated, enterprises are still struggling with the challenge of how to benefit from social software in practice. Enterprises have found it difficult to use social software in such a manner that it 1) achieves its objectives, 2) adds value and is attractive to the members and 3) avoids unintended consequences. Furthermore, since the utilization of social software often initiates a radical transformation of customer producer relationships, the enterprises are likely to be forced to reconsider their business processes.”

According to Duipmans (2012, p. 35), offering BPM as social software, has been identified as a promising approach in which improvement of communication and collection of knowledge have been identified as its main benefits, since it allows multiple users to work on the design, operation and improvement of a business process simultaneously.

Brambilla (2012b, p. 223) defends that

“the social extension of a business process can be regarded as a process optimization phase, where the organization seeks efficiency by extending the reach of a business process to a broader class of stakeholders. This general objective articulates into different optimization goals, which constitute the motivation of the process socialization effort:

- Exploitation of weak ties and implicit knowledge: the goal is discovering and exploiting informal knowledge and relationships to improve activity execution.
- Transparency: the goal is making the decision procedures internal to the process more visible to the affected stakeholders.
- Participation: the goal is engaging a broader community to raise the awareness about, or the acceptance of, the process outcome.
- Activity distribution: the goal is assigning an activity to a broader set of performers or to find appropriate contributors for its execution.
- Decision distribution: the goal is eliciting opinions that contribute to taking a decision.
- Social feedback: the goal is acquiring feedback from a broader set of stakeholders, for process improvement.
- Knowledge sharing: the goal is disseminating knowledge in order to improve task execution; at an extreme, this could entail fostering mutual support among users to avoid performing costly activities (e.g., technical support)”.

4.3. CHANGE MANAGEMENT

BPM is called agile when it is able to react quickly and adequately to internal and external events (Bruno, 2011, p. 297). As for Kragh (2009, p. 641), complementary resources in networks are both a source of innovation and strategic flexibility, and an
obstacle for implementing radical change, when such change calls for the reorganizing of activities and redefining of roles, and that’s the reason why this author defends that change management in networks needs specific theoretical treatment.

Far from being a simple application for a fast development, Business Process Management (BPM) involves all players in business process: systems, people, information and equipments (Gonçalves, 2010, p. 67). These players are also present in Stemberger (2007, p. 222) view of BPM:

“a strategy-driven organizational initiative to improve and (re)design business processes to achieve competitive advantage in performance through changes in the relationships among management, information, technology, organizational structure and people.”

Today, organization competitiveness is primarily determined by its ability to adapt to dynamically changing environments (Dorn, 2010, p. 327) since rapidly changing business environments require organizations to continuously revise their business practices, in order to seek better business opportunities, aiming at reducing their costs and increasing their revenues (Golani, 2005, p.48), which is even more important in the actual state and evolution of global economies. Like a crisis, change presents both risks and opportunities and Management of knowledge, employees and internal communication are all identified in current business management literature as being instrumental in terms of organizational survival and growth (Kitchen, 2002, p. 47) and in terms of achieving competitive advantage, which, for Vakola (2007, p. 260) depends largely on the ability to activate and use organizational resources.

But, during the last years, many changes in organizations haven’t had the planned success and Zink (2008, p. 527) highlights that among the main causes for failures, which are:

- “The deployment from long-term strategy of the company and the ability to make the necessary resources available.
- An adequate participation of the individuals and groups affected by the changes—particularly the employees—instead of expert-driven approaches.
- Consideration of the impact of organization culture.
- Coherence between different change initiatives; managing them not in an isolated but in a holistic process.
- Emphasis on structures and behaviour and considering the interdependencies between them.
- Change initiatives seen as an evolutionary process but not as time-limited programs”.

Today’s organizations experience frequent, diverse and intense change through practices, such as implementation of information system, processes redesign, restructuring, mergers and acquisitions (Raineri, 2011, p. 266; Jern, 2009, p. 24) and,
according to Lies (2012, p. 256), under the umbrella of change management, today, frequently holistic approaches are discussed, i.e. structures, processes, systems, interfaces and people in organizations are changed simultaneously, which thereby contain soft and hard factors, at the same time. For Beer (2000, p. 1), the soft approach focuses on developing organizational culture and human capability, patiently building trust and emotional commitment to the company through teamwork and communication, while the hard approach emphasizes economic value and improving shareholder returns through economic incentives, drastic layoffs, downsizing and restructuring.

Kragh (2009, p. 642) defends that contingent and emergent views of organizational change take the internal and external complexities into consideration and introduce concepts such as environmental fit, continuous change and organizational resistance, in order to better understand the dynamics of organizational change. According to Beer (2000, p. 2), combining soft and hard approaches can radically transform the way business change.
1. RELEVANCE OF THE RESEARCH

Social Networks are evolving and, although there is recognition of the importance that they have in people’s life, there isn’t much information or analysis that seek to interpret and to show reality about SNs in organizations’ life. There is also a gap in relating Social BPM with what, for us, should be its main source of information, Social Networks.

At present, Facebook is the most important SN widely and organizations understand its potential, as they understood in the past the importance of BPM. Yet, organizations are discovering that Social BPM can also help organizations achieve competitive advantage. So, relating these three subjects is relevant, since it can fill the above mentioned gap and help organizations understand how they can use the knowledge from its stakeholders to improve organization.

2. RESEARCH STRATEGY

As previously mentioned the research question that we wish to answer with this work is:

**Can Social BPM in general and use of Social Networking Services (like Facebook) in particularly contribute to BPR success? How?**

The answer to this question has called for two efforts:

The first, the theoretical one, has entailed a review of the literature on the subject, which is presented in chapter 2 of this dissertation. Obtaining an answer to the main question requires research work. According to Stebbins (2001, p. v) regardless of their field of study, the research always begins with curiosity and continues with an essential first step which must be performed – the exploratory research.

In this context, in a first stage, exploratory research has been made, by gathering of data via internet and establishing contacts, which resulted in a meeting with Communication & Public Relations Department of TAP (see the following sub-chapter). Within the exploratory research we also have defined that this work would include a case study and, according to Yin (2003, p. 5) to be considered as a Case Study, the investigation should meet three conditions:

- the research questions are "how" and "why";
- the investigator has no control over the events and therefore do not run the risk of the handle;
• the focus – Facebook – of the present investigation is a contemporary phenomenon.

For the literature review of this work, we have mainly used online resources, in particular through the resource libraries B-on, ISI Web of Knowledge, Web of Science, among others, being the access to these sources provided by ISEGI / UNL. We have also used some electronic sources, including sites of some universities and organizations, as well as search engines (Google, Google Scholar and Google Books) and online encyclopedias such as Wikipedia and Infopédia.

The second effort refers to empirical examination (Case study) of TAP social networks, communication process and changes operated. It will be detailed in the following chapter. For Yin (2003, p. 13), a case study “is an empirical methodology that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident”. For Denscombe (2000, p. 36), the case study approach is characterized by:

• focus on just one instance of the thing that is to be investigated;
• study things in detail, depth and specificity as opposed to breadth and generalization;
• the process investigated is normally something that already exists;
• it allows the researcher to use a variety of sources, a variety of types of data and a variety of research methods as part of the investigation.

In this study we have used the qualitative research methodologies, which were developed in order to enable researchers to study social and cultural phenomena. These methodologies (qualitative) can be positivist, interpretive, or critical. In this work, we have adopted the positivist approach, which generally assumes that reality is objectively given and can be described by measurable properties that are independent of the observer (researcher) and of its instruments (Myers, 2009, p. 37). These methods are also designed to help researchers understand people and the social, cultural and organizational atmosphere, in which they live (Myers, 2009, p. 93).

For the case study, we have also made three models of TAP customer service AS-WAS before FB (Model A – post mail and Model B – Contact Center) and AS-IS (Model C - FB).
3. ORGANIZATION

According to Social Bakers, there are 505 Portuguese pages in FB, but, after a careful analysis of the pages list, we have conclude that the top 40 Social bakers list consists of the following categories (see Table 1):

<table>
<thead>
<tr>
<th>Page owner</th>
<th>Number of pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations</td>
<td>10</td>
</tr>
<tr>
<td>Entertainment</td>
<td>5</td>
</tr>
<tr>
<td>Football Players</td>
<td>5</td>
</tr>
<tr>
<td>Radio</td>
<td>5</td>
</tr>
<tr>
<td>TV</td>
<td>5</td>
</tr>
<tr>
<td>Football clubs</td>
<td>3</td>
</tr>
<tr>
<td>NGO</td>
<td>3</td>
</tr>
<tr>
<td>Tourist Promotion</td>
<td>2</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>1</td>
</tr>
<tr>
<td>Newspaper</td>
<td>1</td>
</tr>
</tbody>
</table>


From the analysis of the 10 organizations, we have concluded that there is only one organizational FB Page where users cannot post and can only comment what organization posts. The remaining 9 organizations have three different approaches: they allow user posting but don’t answer (2), allow user posting and answer with delay\(^26\) and (3) they do customer service with an efficient answer (4).

From the four organizations that have an efficient customer service, two of them are mobile communication organizations, the third one is a technology store and the fourth is TAP, the Portuguese airline, owned by the Portuguese State (nationalized in 1975), with 67 years of history\(^27\), which created a FB profile in 2009.

Although there are more Portuguese organizations that use FB to talk with customers (e.g., Vodafone, TMN, Worten), TAP is a big challenge, since it is the only nationalized Portuguese organization on FB and this was the main reason why we have chosen TAP. However, TAP has also been chosen because:

\(^26\) In organizations’ FB page analysis we saw customers posts that after 24 hours still didn’t have an institutional answer. In one case posts have more than a week and still didn’t have an answer.

\(^27\) TAP will be better described in the following chapter.
• TAP FB is (in our opinion) the best and most efficient form of communication with TAP, either to get information, submit a claim or to welcome their services;
• The way TAP understands FB – “FB it’s about having conversations”\textsuperscript{28}.
• With 67 years of history, TAP has changed in the last 12 years and is now an open and transparent organization.

4. DATA COLLECTION

The use of multiple sources of data is a characteristic feature of case studies, since it allows to ensure the different perspectives of the participants in the study and to obtain various "measures" of the same phenomenon, creating conditions for a triangulation of data during the analysis (Gomes, 2003, p. 2088).

For Yin (2003, p. 83), the use of multiple source of evidence in case studies allows an investigator to address a broader range of historical, attitudinal and behavioural issues and to develop converging lines of inquiry, and, consequently, any finding or conclusion in a case study is much more convincing and accurate, if it is based on several different sources of information. For Eisenhardt (1989, p. 538), triangulation made possible by multiple data collection methods provides stronger substantiation of constructs and hypotheses, whereas, for Saunders (2009, p. 146), triangulation refers to the use of different data collection techniques within one study in order to ensure that the data are telling you what you think they are telling you.

So, in this study, data were collected through the use of the three methods that, according to Patton (2002, p. 4), fits better in qualitative research: direct observation, documents and interviews.

4.1. DIRECT OBSERVATION

Saunders (2009, p. 288) emphasizes that observation is essentially the systematic observation, recording, description, analysis and interpretation of people’s behaviour whereas Yin (2003, p. 93) notes that, by paying visit to an organization, for instance when making an interview, some relevant behaviours or environmental conditions will be available for observation. This author also argues that observational evidence is often useful in providing additional information about the topic being studied and can

\textsuperscript{28} http://prezi.com/1kry0sopklop/social-media/
involve observation of meetings, sidewalk activities, work conditions, field visit, technology, among others (op.cit).

Bell (2004, p. 162) highlights that in many cases, direct observation may be more reliable than what people say, because it can be particularly useful to find out if people do what they say or do behave the way they claim to behave.

In this study, we did direct observation in TAP Contact Center for 30 minutes, aiming to capture the communication process, through the use of phone and FB, and by identifying the resources used and the differences in the communication process. The meeting took place on a usual working day, where a normal team of 40 phone persons and 1 in Facebook was operating. During the interviews, we also did some observation.

On July 25th, we were at TAP office for many hours and in three different departments. So, we could witness people in their working space, employees’ relationship with one another, both at working and pause time.

We also watched TAP FB, that is, we made observations concerning the questions posted and the way questions are answered and solved.

4.2. DOCUMENTS

Most research projects rely much on documental analysis, which may achieve two main goals: it can complement the information obtained by other methods or be the primary method of research (Bell, 2004, p. 101). According to Yin (2003, p. 87), the most important use of documents in a case study research, is to corroborate and augment evidence from other sources and, because of their overall value, documents play an explicit role in data collection.

In our study documentation were mostly collected from TAP website and TAP archives. It consisted of Annual Reports, TAP Code of Ethics, TAP history, TAP Mission & Principles and Group TAP Structure. We also had access to TAP (internal) newspaper and to some presentations that TAP Communication & Public Relations Department kindly provided. Finally, the Contact Center also provided quantitative data on the number of requests / interventions of Contact Center. Some documents were sent to us by the interviewed persons.

4.3. INTERVIEWS

For Yin (2003, p. 89), interviews are an essential source of case study evidence, because most case studies are about human affairs or events and according to Bell (2004, p. 137), one major advantage of the interview is its adaptability, since a skilful
interviewer can follow up ideas, probe responses and investigate motives and feelings, which the questionnaire can never do.

For this study, we have conducted focused, open-ended interviews which, according to Bell (2004, p. 11) uses a framework that establishes selecting topics, on which the interview is guided. The interviewee is allowed a considerable degree of latitude within the framework and although certain questions are asked, it allows asking respondents about facts, as well as their opinions about events (Yin, 2003, p. 90). The interview topics have included the selected subject to be addressed to: knowledge, processes, Facebook and communication process.

Access to sources was made possible by the personal contact of the author of this dissertation with a manager of TAP, who forwarded to the organization Communication and Public Relation Department (first contact person). Later, he scheduled interviews with people from other departments, namely: Board of Directors Advisor and Contact Center General Manager. During the data collection, we have realized that interviewing TAP Vice President and FB responsible – Mr. Luiz Mór - would be important, so the author of this dissertation sent a FB private message to him (see APPENDIX 1 – PRIVATE MESSAGE SEND TO TAP VICE-PRESIDENT), who answer and scheduled an interview.

Interviews were face-to-face and allowed the accumulation of evidence and of current experiences, due to the fact that people being interviewed deal with FB introduction and daily life (Interview A and C) and with process change through information got from employees and suppliers (Interview B). Due to the person interviewed, the interview D also included questions about changes operated in TAP. The huge commitment of the interviewees allowed the extracting of valuable information about the theme of this research.

The first interviewee in the company (contact person) – Mr. André Serpa Soares from Communication & Public Relations Department (Interview A), described TAP organizational structure and helped the author of this dissertation identify and get in touch with the people to be interviewed in the company – Mr. Gil Trigo, Advisor to the Board of Directors and responsible for Cost Reduction Program (Interview B) and Mr. João Santos, Contact Center General Manager (Interview C). As already mentioned above, the interview with Mr. Luiz Mór, TAP Vice President, resulted from FB contact and its main goal was to understand his vision about FB process and to get to know the organizational changes that have occurred at TAP, since the arrival of this administration (Interview D).
The interviews took place in July and August 2012, in person. They were recorded on digital media (authorized by the interviewees) and had a variable duration (the shortest one lasted about 24 minutes and longest one 68 minutes). Interviews were transcribed and the transcriptions are presented in APPENDIX 2 - INTERVIEWS TRANSCRIPTIONS.

5. DATA ANALYSIS

The research objectives in this study was basically focused on the premise of understanding how FB can help TAP PORTUGAL changing its processes, as well as the possible opportunities for improvement regarding the problems encountered, the understanding of its reasons and impacts such problems might have.

Analyzing data is the heart of building theory from case studies (Eisenhardt, 1989, p. 539) but it is both the most difficult and the least codified part of the process, whereas, for Yin (2003, p. 111), there are three general strategies to analyze data in a case study research: (1) relying on theoretical propositions; (2) thinking about rival explanations and (3) developing a case description; and five techniques to do the analysis: (1) pattern matching, (2) explanation building, (3) times series analysis, (4) logic models and (5) cross-case synthesis.

Regarding the collected data by the use of interview, relevant considerations have been taken into account towards the analysis of such data. In a qualitative study, important is to make the most adequate use of the collected data towards the research purposes stated. In order to achieve such best use of the data retrieved from the interviewing of the participants within the study, it has been determined that the data retrieved would be analyzed by using the explanation building technique and following the described steps mentioned below:

1. Transcription of interviews, in order to obtain the necessary feedback answers;
2. Interpretation of the data of each retrieved answer, in order to detect relevant content that helped the development of the stated purposes and objectives of this study;
3. Conclusion of the study based on the previous collection and analysis of gathered data.
CHAPTER 4 – CASE STUDY
1. TAP HISTORY

TAP Portugal is the national airline owned 100% by the Portuguese State, and was founded in 1945, with two DC-3 airplanes for 21 passengers each; it is now a business group (see Figure 4), which controls 12 organizations operating in several areas and employing almost 13,200 people in distinct points of the globe (TAP, 2010b, p. 80).

Figure 4 - Organization Chart TAP Group

But to reach this point, TAP travelled 67 years of history, with some milestones that should be highlighted:

1946-1950 - Opening of the first commercial line (Lisbon / Madrid) on September 19 and inauguration of the designated 'Imperial Air Line' on December 31, from Lisbon to Luanda and Lourenco Marques, with a total of 12 stopovers and a total duration of 15 days (roundtrip). New routes were successively introduced, such as: Porto (1947), Paris and Seville (1948), São Tomé and London (1949)

1961-1970 - This was the decade where the first Information Systems were implemented: In 1963 the first flight simulator TAP (Caravelle) was introduced; in 1967 the first computer programs for management was installed; during 1968 installation of the B727 flight simulator and inauguration of new Center for Review and Testing of Aircraft Engines (CREMA), infrastructure, equipping with modern technology.


1971-1980 - This decade starts with the inauguration of the new center of Computers and Education (1971) and, in 1974 was introduced the TAPMATIC, the new information systems to reservation service, the load control and check-in. During 1979 TAP starts the implementation of a program to modernize the company and launches the new visual image, under the name of TAP Air Portugal, with a new logo, new decorations and aircraft supplies, as well as new uniforms. This year finishes with the implementation of the computerized service of cargo reservations (CARGOMATIC).

In consequence of Portuguese Revolution, in 1975, TAP was nationalized, and becomes known as TAP, EP (Public Company); due to the political uncertainty, the introduction of new routes took place more slowly and during this decade the new routes introduced were: Montréal, Ponta Delgada e Terceira (1971), Porto/Paris (1973) Caracas and Milan (1976), Lyon, Luxemburg and Salvador (1978) Brazzaville (1979), Barcelona and Rome (1980).

1981-1990 - In 1986, a computerized system for managing crews was introduced and, in 1987, TAP joined the international consortium Galileo. In 1988, TAP implemented an automatic system for tariffs calculation and ticketing and, in 1989, a new flight simulator for planes B737 was installed.

1991-2000 - In 1991, TAP was transformed into “Sociedade Anónima”\(^{29}\) with predominantly public capital. In 1993, computer system for issuing automatic tickets and boarding passes (ATB2 and SRB) were implemented. TAP website was created in 1996 with information about the company. In 1997, a new flight simulator for Airbus planes A319, A320 and A321 and a new Electronic Ticketing in the domestic network was introduced. In 1998, TAP begins the internationalization of Electronic Ticketing, with implementation in some European routes.

During 1999 TAP launch a set of strategic guidelines for TAP’s future, called Modernization and Recovery of TAP and, in November same year, a program of valuing Customers designated "Bem Lhe Quer". In December, the company did a Flight with the Press to demonstrate that all systems of the company were able to transition to year 2000.

2001-2010 – In 2001, TAP extended e-ticketing to most destinations in its network, with considerable benefits for customers and promotes a redesign of network operations, with efficiency gains achieved through increased fleet utilization and increased frequencies, as well as the introduction of more convenient and flexible schedules and offer the best connections; During 2001 TAP also renewed and improved some of the facilities offered, such as telephone check-in, Lost & Found, Call Center in Portugal and the development of Quick Transfer Center (QTC) in Lisbon Hub. Also the company’s website on the Internet has undergone improvements and introduction of features, including the issuing of tickets online for all the destinations covered by E-Ticketing. In 2002 TAP reinforces its presence on the Internet, creating Web sites dedicated to local markets: Belgium, Brazil, France, Germany, Italy and the UK.

In 2005, TAP launched the company new image and new designation as TAP Portugal and introduces the service online check-in from Lisbon, which was extended to all company networks in 2006. During this year TAP bought Portugalia\(^{30}\), which was integrated in TAP in 2007.

On June 1, 2008, TAP starts issuing only electronic tickets. In the summer of 2009, Facebook and Twitter official profiles were created and, in 2010, TAP Portugal was the first company in the tourism sector with official channel on Youtube.

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\(^{29}\) Anonymous Society company whose capital is divided by shareholders who hold shares freely tradable, and are responsible only for subscribed capital (Infopédia, 2012).

\(^{30}\) Portugalia began operating in 1990 and was a Portuguese private regional airline, operating in Portuguese and European airspace (Portugalia, 2012).
Until 2012 TAP continued its expansion and operates now with 71 aircrafts, serving 75 destinations in 34 countries worldwide.

2. TAP CHANGES

Public sector has some particularities, which make renovation projects considerably different (Stemberger, 2007, p. 221). Thus, over the years, and despite the many changes and modernization programs launched at TAP, nothing really changed much. In July 1999, TAP launched a document untitled ORGANIZATIONAL AND CORE PROCESSES MODERNIZATION PROJECT – STRATEGIC GUIDELINES, which

“comprises a clear message of trust in the company knowledge and ability, and constitutes an incentive to all its collaborators, so that an efficient attitude at the customers service can be assumed as a marked characteristic of TAP culture” (TAP, 1999, p. 9).

However, in 1999 annual report TAP mission and vision31 didn’t mention once the words customer, employee, trust, knowledge or collaboration, which, according to the Interview D, was not different from other organizations, since

“Times were different, not just the airlines. By that time, the consumer had the power he had. I mean after many years of economic growth around the world, during which manufactures sold everything manufactured, focus wasn’t on the client” (Interview D, personal communication, 02/08/2012).

In October 2000, Fernando Pinto was appointed TAP CEO, with the mission of selling the company to Swissair. But, in 2002, the Swiss company entered bankruptcy and Fernando Pinto aim was to find another buyer, which never happened, due to difficulties of the international market and the financial situation. However, a radical change in the company began and, in 2001, TAP started changing its organizational culture, strategy and focus in five key areas: Income increase, costs reduction, increase in the quality of services, change in procedures and improvement of the organizations and valorisation and development of human resources (TAP, 2001, p. 31).

Income Increase – historically, TAP results are negative ones. However, in 2011 TAP achieved the third consecutive year of positive net result, which was only possible

31 “Tap’s mission is to serve its customers, strengthening its position in the markets, complementarily with its participation in the Qualiflyer Group alliance system. The company main objective is the consolidation of its position in the markets where it operates, in addition to its participation in a global alliances system. Towards this purpose, the company maintains its strong link to Portugal, an attitude that corresponds to the selection of the niche where its competitive position is better sustained.” (TAP, 1999, p. 9)
thanks to the growth of company, which achieved a record number 9.8 million passengers, an increase of 7.3% compared to 2010 (TAP, 2012c, p. 4).

**Cost Reduction and Change in procedures and improvement of the organizations** – Although they are two distinct areas, we decided to analyze them together since much of cost reduction is due to procedures change and organization improvement. It is a concern transversal to the entire Group. Thus, in 2009, TAP launched a Cost Reduction Program which was coordinated by a steering committee on which sat Luis Rodrigues and Luiz Mór (executive directors), Orlanda Sampaio (secretary general) and Gil Trigo (advisor to the Board of Directors). The various companies and areas, without exception, have seen projects approved under this program, which depends entirely on employees’ suggestions and doesn’t use external consultants. Under this program, 199 projects were submitted, from which 48 are still under review. The 151 projects approved until now represent a saving, by 2012, of 178.7 million Euros (TAP, 2010b, p. 4).

**Increase in the quality of services** - In 2011, TAP did a customer satisfaction survey and results showed that the main motivations for a passenger to choose a flight of the company are trust, positive past experience, convenience of time, good service and price (TAP, 2012, p. 6); for three years running – 2009, 2010 and 2011 TAP was voted “World’s Best Airline to South America” by World Travel Awards (WTA). In April 2010, *Condé Nast Traveller* magazine named TAP “Best Airline”, and the prestigious US magazine *Global Traveler* voted it “Best European Airline” in 2011 (TAP, 2012d, p. 9).

According to TAP (2011, p. 2), simplifying processes and circulation of information are characteristics that today's companies with ambition cannot ignore and TAP change focuses on a culture of information and transparency. Improved information, quantitatively and qualitatively, is especially useful for all, because it provides organization conditions for the disposal of a greater and deeper knowledge of their activity. The simplification of forms of communication, which had a huge increase with the arrival on the scene of social networks, is also an enormous challenge, because it creates new responsibilities, both individual and collective, since anything that is said, even at a restricted level or "private", can earn a dimension not planned, which advises some caution, so that the image of TAP cannot be affected, even if inadvertently (TAP, 2011a, p.3).

**Valorisation and development of human resources** – In 2003, TAP launched RECOGNIZE program, which the organization define as
“one of the pillars of the TAP Group is the recognition of merit, dedication, spirit of initiative and high levels of service customer. Recognize Program promotes an organizational positive culture, focused on doing well and on the right attitude” (TAP, 2012, p.3).

According to Sandra Rodrigues32 (TAP, 2012e, p. 2), communication has been a very effective instrument in mobilizing the TAP Group for the program, as well as dissemination of company values and the spread of recognized actions that generate motivation and a contagion effect. The program celebrates this year its 10th year and has already recognized approximately 500 workers.

Alongside, training program for employees is a reality and in 2006, TAP launched an e-learning platform and, in 2010, nearly 9,700 employees have attended transversal and specific activities (TAP, 2010a, p.14). Yet, there is another program called SKATE which aims at the consolidation of values and the continuously development of competences of each employee of TAP. SKATE is an acronym that resulting from the words – SKILLS, KNOWLEDGE, ATTITUDE, TRAINING and EXPERIENCE.

TAP mission changed with the new Administration and, according to 2002 annual reported, it is defined as:

“TAP’s mission is the development of its activity as an international airline, constituting the best option for those who use their services of passengers and cargo transport, becoming the best company to work with and giving their investors suitable levels of profitability”.

The changes have been slowly implemented but have become a reality and, although public opinion is often not in favour of public organizations, in these 12 years, Portuguese public opinion has also changed about TAP.

Yet, this wouldn’t have been possible if TAP hadn’t made some major changes in the recent years. TAP was (and still is) a public sector company and, according to Stemberger (2007, p. 222), organizational changes, in public sector organizations, are achievable only up to a certain limit. So, in 2000, when a new Administration arrived at TAP and decided that one of the first and of crucial importance changes to be operated in organization, would be the changing of TAP mission and of its organizational culture, many people doubted.

However, this was a success. Furthermore, customer satisfaction has become the focus of the organization, as employee satisfaction also has. In 2009, TAP was in the list of the best company to work in Portugal. Thus, despite the controversy surrounding

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32 Sandra Rodrigues is human resources business partner of TAP Services, accumulating with the newly established Talent Management Area, thus being also the sponsor of Recognize program (TAP, 2012e, p. 2).
the appointment of the new Administration, over these thirteen years, all stakeholders (including public opinion) have surrendered to its measures and now they recognize the change “for better” that the company has operated.

As already mentioned above, for this study we did four in deep interviews with managers from different areas in TAP Portugal organization. Due to persons interviewed, although three of them spoke about TAP FB issue (Interview B was the exception) all interviews focused a point of this study: Change Management, Knowledge Management, Open Innovation and Crowdsourcing and Social Computing.

The first changes allowed TAP to adapt to the future and consequently to SN and on a second phase TAP changes have occurred due to SN themselves.

2.1. CHANGE MANAGEMENT

Changes operated in TAP were only possible due to a change in organizational culture which was perceived inside the organization, as it results from the following statement:

“At organizational culture level TAP has been changing in recent years, especially since this Administration came. TAP was a public company, state owned, heavy, haughty and almost static where customers care little. There was also this whole change of organizational culture, or if before the client was not a central concern of TAP employees, it is now. Today the center of our attention is the client and TAP exists to provide a service to clients and customers must be satisfied. It does not mean that customers always have reason, the client may not even be right but TAP must hear him and must explain why he is wrong. And this was not done. This change in organizational culture was implemented top-down, was a change that was desired by the new administration.” (Interview A, personal communication, 16/07/2012)

TAP Administration commitment was also important in two directions: first because changing organizational cultures is only possible when it is implemented from top to down:

“Without the involvement of the Administrator things would not work the same way. Only with the spectacular commitment of Eng Luiz Mór and its philosophy to solve customer problems, we were able to achieve this.” (Interview C, personal communication, 25/07/2012)

and secondly, because this commitment avoided a hard approach in organizational culture change. TAP implemented a “soft approach”, which allowed that:

“This cost reduction project was launched in 2010 with a top-down approach. Rather than having an Administration that says “I want to reduce 10% of costs and that blindly or with a gauge that may not even be realistic to achieve”, we launched a challenge to all departments and
organizations and asked each area to analyze and see what they could do to reduce costs, and they became responsible for that costs reduction.” (Interview B, personal communication, 25/07/2012)

So this change operated in TAP was reflected not only in customers but also in employees, and a trust, motivation and commitment environment flourished in organization. This is highlighted by the following statement:

“The gains are evident here. In fact this transparency and openness, both inside and outside, is a great contribution for people to feel they are involved in society and they have to interact with it.” (Interview A, personal communication, 16/07/2012)

This transparent and open culture was also perceived in soft signs that we have witnessed by means of direct observation:

3. The interview with TAP Vice-President was requested to him by the author of this thesis by means of a FB private message (see APPENDIX 1 – PRIVATE MESSAGE SEND TO TAP VICE-PRESIDENT), which he answered, although we haven’t met before that message. When we arrive for the interview, he kindly said: “How is my most recent FB friend?”

4. Another important evidence that should be highlighted is the fact that, in all the interviews (including the one with the Vice-President), we never saw a tie, and although interviews took place in summer, it is not common behaviour in Portugal. In our opinion, this is a sign of the informal atmosphere that TAP has.

2.2. **Knowledge Management**

Although there is no formal knowledge management area or a Chief Knowledge Officer (CKO) in the organization, the internal cost-reduction process that the organization has, consists of mechanisms for identifying and sharing employee’s tacit knowledge. The ideas provided by employees are gathered by immediate superiors, present at higher levels (Steering Committee) and after analysis, if the idea is considered feasible it is implemented. As mentioned with this program, TAP already had a cost-reduction of 178,7 million Euros.

33 A chief knowledge officer (CKO) is an organizational leader, responsible for ensuring that the organization maximizes the value it achieves through knowledge. The CKO is responsible for managing intellectual capital and the custodian of Knowledge Management practices in an organization (Wikipedia, 2012b).
Knowledge is an important issue at TAP and they assume that individual and organizational learning are very important. The company, as a whole, tries to learn from the experience of each one. For instance, in 2009 annual report is mentioned:

“(TAP) continued its efforts towards improving the process of strategic management of the company, with the development of various initiatives, and the intensification of technological innovation, stemming from this action: Concentration of skilled resources; Faster and reasoned decision-making; Effective management of available resources; Sharing and exchange of knowledge; Focusing on core business; Better alignment of resources with the mission” (TAP, 2009, p. 71).

Organizational learning is also valued at TAP. The company had a problem with the initiative FALE CONNOSCO, since it didn’t allow the company to extract knowledge or make it difficult to, as shown in the interview D:

“When I started the FALE CONNOSCO, the intention was to bring the customer to the company. (...) But I wanted to get the basic causes that generate the problem, so as to correct them, in order to avoid their happening again. One thing is to solve the problem for that client; another thing is to take an apprenticeship. And I could not get an apprenticeship there. I got very little, the classic cases.” (Interview D, personal communication, 02/08/2012)

As mentioned, the first goal of FALE CONNOSCO was the communication with customers and, in its first form, it existed through phone. However, with the introduction of internet first and SN later, both FALE CONNOSCO and internal and external communication have undergone a huge change.

2.3. Social Computing

With organizational culture change on the way and the introduction of internet, much has changed at TAP. First, TAP started changing its proximity to customer. In 2002, TAP launched FALE CONNOSCO, designed for the customer relationship with TAP, which includes the processing of suggestions, compliments, criticisms or complaints, operated both by phone or internet. However, FALE CONNOSCO still presents constraints, as it was emphasized in the interview D:

“I deal with complaints. I read the FALE CONNOSCO communications, but processes are too complicated. Understanding what happened is very complicated, mainly because the claim comes with many filters, a lot of manipulation, both on the customer’s side and on the company’s one.” (Interview D, personal communication, 02/08/2012)

Internet can also foster internal learning networks, by establishing and enhancing the quality of communications. Moreover, the e-learning platform is also
important, since TAP is present in 40 countries globally and, therefore, it needs a tool that allows the company to be closer. Interview C underlines the following:

“We also have the e-learning platform which helps organization get closer.” (Interview C, personal communication, 25/07/2012)

TAP has developed and modernized its intranet with a new Home Page with new features. It allows access from home, which is very important in a company where a large number of employees doesn’t have a physical workplace (board staff). TAP also has implemented the TAP Group Communication Portal, which concentrates, in a single dedicated space, information and corporate communication, both internal and external, regarding the TAP Group (partnership between the area Human Resources and the Communications & Public Relations Department), and the Home Portal Project Worker. This intranet tool was designed to query data from Human Resources, which provides, through controlled access, information concerning personal data, changes it and analyzes the situation of wages, overtime, absences and holidays, among others. It aims at reducing paper usage and optimizing work processes (greater efficiency in Human Resources and decrease of the flow of requests for information about services), which increases the autonomy of its employees and the sharing of information and knowledge (TAP, 2009, p. 84).

3. TAP AND SOCIAL NETWORKS

The first TAP approach to SN was in 2009 when TAP Marketing Department created official profiles on Facebook and Twitter, mainly to launch promotions and “to get the feeling” of Social Networks. They reintroduced TAP auctions exclusively on their official page on Facebook, making the company a national pioneer in auctions in this social network. However, the profile and the number of fans were modest, as shown in interview A:

“At that time FB served purposes which were not exactly those to which FB was intended. TAP FB served only to promote campaigns. It was a publicity thing rather than a relationship. But FB is not about that; social networks are not for that. In our opinion, after having already studied a bit about it, SN are to talk, to engage, to establish relationships with diverse stakeholders, including customers and public opinion.” (Interview A, personal communication, 16/07/2012).

Two different events (in nature and time) projected TAP FB and considerably increased the number of fans on the page. The first one occurred in December 2009,
when TAP did a Flashmob\(^{34}\), at Lisbon Airport and launched a video on TAP YouTube channel, which was watched by over 2 million people and spread throughout SN, bringing many fans to TAP Facebook. However, it was with the second event that TAP FB has grown to incredible numbers.

In May 2010, Eyjafjallajökull volcano erupted and, because of its ashes, the airspace was closed in North Atlantic and Europe. With millions of passengers stranded and delayed at European airports, the chaos was launched at the airports and on the traditional channels of customer contact - Contact Center and counters. By that time, the contact center answered, on average, 8000 calls per day, reaching a peak of 12 000 calls (TAP, 2011a, p. 3). With overloaded call centers, desperate passengers turned to FB to question TAP. What seemed to be a disaster resulted in a challenge for the airline and a big opportunity to learn how to deal with such situations, which they later called “on job training” for social media. TAP also took this situation as an opportunity to learn:

“This boom was our great learning: the volcano crisis that stopped air traffic across Europe. This was when we learned more and began to use it more intensely and when we started having a truly fantastic number of FB fans. Air traffic remained closed throughout Europe, first in northern Europe for a week and then another week in Portuguese and southern Europe airports; all our passengers wanting information’s called to the CC who cannot answer all contacts, it was impossible! So customers went to FB, found that TAP was on FB, become fans and asked questions in FB. We learned very quickly.” (Interview A, personal communication, 16/07/2012)

TAP also learned about the potentialities of social media and FB potential, as a communication channel between the company and its customers, which made TAP change their vision of FB. And what was initially just a marketing platform to promote products or services, has suddenly changed and become a way to communicate with customers (TAP, 2011a, p. 3). According to TAP Vice-President,

“FB is a huge opportunity (...), because suddenly the person who has the power to solve knows the problem and knows of it today. **FB allowed changing the company's image.** In Portugal, it is more complicated because we have some dynamics that hinder the brand. We have dynamics of strikes, we have the dynamics of politics, and we have a series of dynamics that blend with the whole brand. But now we are perceived in a completely different way in Italy, Germany, Angola, and Brazil. **We have quarterly studies by nationality and the nationality that gives the lowest score for TAP is the Portuguese ones. Brazilians give the best one.**” (Interview D, personal communication, 02/08/2012)

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\(^{34}\) Flash mob is a group of people mobilized by social media to meet in a public place for the purpose of doing an unusual or entertaining activity of short duration (Dictionary.com, 2012).
On a first stage, TAP didn’t prepare or give training to its employees about SN. Only a few months after having created TAP profiles on FB and Twitter, the company had its first unpleasantness when a pilot and a flight attendant insulted another pilot at the company FB\textsuperscript{35}. This incident attracted the company to the problem. As a result of this, employees were given training for SN and, in addition to it, in February 2011, the company amended its Code of Ethics and introduced a point about Workers Internet Activity (see APPENDIX 3 – TAP CODE OF ETHICS)

As mentioned above, TAP FB profile was created by the Marketing Department. But due to the circumstances, it is now managed, under the supervision of one Executive Vice President (Luiz Mór), by three different departments (see Figure 5) and, although there are no specific written rules, each department knows what its roles are and where is the limit of its powers. In this context:

- **Marketing Department** has the role of stimulation and of launching promotions and entertainment, according to FB best practices of at least two posts a day. **Communication & Public Relations Department** their task is crisis management and institutional communication.

- **Facebook Team and Contact Center** are responsible for the customer service.

> Figure 5 - FB Process Management in TAP

![Figure 5 - FB Process Management in TAP](source)

Source: Adaptation by the author based in interviews

According to Luiz Mór – TAP Executive Vice President (TAP, 2011a, p.5) – Facebook is TAP main project, because it synthesizes a series of principles that the company has to observe, in order to compete in such a demanding market. It is also

\textsuperscript{35} [http://tinyurl.com/bn38fto](http://tinyurl.com/bn38fto)
assumed that Facebook has exerted some pressure on the company, since it has made the company change the way it deals with customers. It allows TAP to better monitor what concerns customers and, therefore, serving them better and faster. To achieve the established deadline of a 30 minutes’ reply on Facebook, TAP decided to put Facebook interlocutors in all departments.

Thus, TAP is a project that involves the entire organization and is understood as a process itself. Despite its (heavy) organizational structure, the transversality of FB process fits the beginning of a process centric approach and reveals that the changes operated in the organization are paying off.

4. TAP AND BUSINESS PROCESS MANAGEMENT

As results from Interview B, TAP doesn’t have a BPM area:

“There isn’t a BPM area in TAP. There are many situations of process changes, but the only area that models its processes is the maintenance one, since things are very procedural, and there processes models may exist. In other areas and departments processes are not modelled.” (Interview B, personal communication, 25/07/2012)

But, although there isn’t a BPM area in TAP, they recognize its importance and the benefits it may bring to the company, which can be confirmed in different sources of evidence collected (see Table 2)

Table 2 – Evidences of BP importance, Source: prepared by the author.

<table>
<thead>
<tr>
<th>Source</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP 2010 Annual Report, page 67</td>
<td>“Significant cost savings by achieving economies of scale, reducing duplication, as well as through the use of best practices, which increases process efficiency.”</td>
</tr>
<tr>
<td>TAP, 2009, page 12</td>
<td>“To that purpose, we carried out a re-engineering of the air cargo transport scheme, from the forwarding agent to the final customer. Thus, processes are simplified and can be reduced from 40 to only 19 steps, with the inherent reduction in operating costs and with the improving of customer service end.”</td>
</tr>
<tr>
<td>Megasis(^{36}) website, 2012</td>
<td>“Resulting from the redefinition of its mission and strategic direction, Megasis has focused, in recent years, its ability to work in support of business processes of the Commercial</td>
</tr>
</tbody>
</table>

\(^{36}\) TAP information systems are centralized in Megasis which was established in 1989 with capital allocated between TAP Portugal and a number of important companies in the domestic market but in 1994, TAP Portugal acquired the entire share of capital of Megasis and thereof it is currently a Company of the TAP group.
5. TAP AND INNOVATION

TAP has a big innovation component; In 2010 TAP launched a cost reduction project with a top-down approach; rather than having an Administration saying I want to reduce 10% of costs and blindly or with a gauge that may even be unrealistic,

“we (TAP) launched a challenge to departments and asked that in each area they analyze and see what they can do to reduce costs, and became responsible for that costs reduction” (Interview B, personal communication, 25/07/2012);

According to Luis Rodrigues37, TAP has nothing against foreign aid, but they believe that TAP employees have a better knowledge of its processes, which makes them more able to identify areas where there are potential savings (TAP, 2010b, p.5).

And, from this program, some innovation processes have arisen, such as:

- “Some years ago, AMEX and VISA told us that either we did something to prevent fraud or they would withdraw our payment license and accuse us of collusion, because we had high levels of fraud and did not do anything against it. So, we created an urgency team, with the participation of various departments (Vitoria, finance, contact center, branch, Megasis, etc.) and a document was presented to the Board, proposing several immediate measures. One of them was the creation of the fraud prevention department, which was accepted. At the same time, we made a partnership with our supplier CyberSource and acquired a model for the prevention of fraud, associated with the payment application. This model worked for a few months, but then we ourselves became a bit more demanding. We thought that we should not be harming our best customers. Whenever there was doubt in the transaction / payment and a validation demand was necessary, we asked the customer to pass by our offices. But, in the meantime, we also had excellent passengers; so, we asked CyberSource to include in this model the reverse of the negative list, that is, a positive list of passengers (who frequently flew) that deserved our confidence. This had impact on cost reduction, since we continued to develop and to improve this application. Our medium term objective is to eliminate the CyberSource platform and to have our own. At this point, it has already captured the interest and the curiosity of other airlines, including Amadeus, and other airline companies, who have shown interest in it.” (Interview C, personal communication, 25/07/2012)

- “Implementation of RFID (Radio Frequency Identification) technology in components tracking circuit in engine maintenance. The project will reduce the search time for components and tools. Savings estimated at eight million Euros.” (TAP, 2010b, p.5)

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37 Executive Administrator
From the external point of view, according to the interview B, TAP also participates and consequently benefits from its participation in various working groups, such as Airbus, EASA (European Aviation Safety Agency), AEA (Association of European Airlines), DOA (Design Organization Approval), etc, and in other operators and Maintenance Companies, where there is sharing of information for the common good.

But TAP is also thinking about the future and realizes that collaboration is important. So,

“the next step could be an internal collaborative platform. This is one of the developments that we should have. TAP is perhaps the most multinational company based in Portugal. We are present in 40 countries with offices and staff operating in maintenance, care services at the airport, assistance at the airport, ground handling and so many other people displaced throughout the world that sometimes need information on time and there isn't. If there is a collaborative platform, or a wiki, where they can find information or ask it to another colleague who is online in other part of the world, this collaborative platform can help improve processes and improve our business.” (Interview A, personal communication, 16/07/2012)

6. TAP COMMUNICATION PROCESS

According to Harris (2009, p. 20), communication is an ongoing process and it is the study of behaviours that extracts or produces meaning between and within individuals, groups or organizations. Communication is the foundation for successful human interaction, regardless of the setting in which it occurs (Marques, 2010, p. 47), reason for being considered a major shaping force in the organization.

And, for Teixeira (2005, p. 184), the process of communication implies the existence of three elements: sender, receiver and transmission channel, where encoding and decoding play a significant role in that. So, there is a match as perfect as possible between what is given and what is received (see Figure 6).

![Figure 6 - Communication Process](source: Teixeira (2005, p. 185) Adaptation by the Author)
Organization communication exists in two aspects: internal and external and, although internal communication at TAP is also a challenge, mostly due to the characteristics of airline industry, this work will focus on external communication and mainly on communication with customers, which has also changed over TAP 67 years of history.

During its first years of existence, TAP external communication was restricted to the existing communication channels, which were post mail and telephone. With the introduction of internet and Information Systems, communications have evolved and new media have been successively introduced. At TAP, some of them are: Fale Connosco\(^{38}\), Email, contact center and Facebook.

**Post Mail**

It is the oldest form of communication, still in use. Post Mail is a communication system that involves the sending of written documents (letters, invoices) and orders between a sender and a recipient, who may be in the same city or in places far apart. These written documents are carried by an intermediary to another place (see model A in APPENDIX 4 – MODELS)

**Contact Center**

A Contact Center is typically defined as a voice operation center that interfaces with the customer in a variety of ways from customer support, billing, provisioning, directory assistance, to technical support (Jack, 2006, p. 477). In 2001, while most airlines were decentralizing their call centers to India and Pakistan, where labour costs were cheaper, TAP was centralizing all contact centers at TAP Lisboa. Until the year 2000, TAP was inserted in the Qualiflyer Group\(^{39}\), which operates in central London, and where they have its triple C - Qualiflyer, Customer Care Center serving all European markets.

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\(^{38}\) 2002 was designated by TAP the Customer Year, highlighting the launching of “Fale Connosco” (translation of “Speak to us”) a service designed to facilitate and expedite contact between the Customer and the Company, with greater speed and efficiency in responding. Several internal training activities and training actions were undertaken with the aim of improving the overall quality of care to customer.

\(^{39}\) Qualiflyer was a frequent flyer program, created in April 1992 by Austrian Airlines, Crossair, and Swissair. When Swissair began acquiring stakes in other European airlines, in 1998, Qualiflyer was extended to become their frequent flyer programs, as well. This spawned the alliance known as The Qualiflyer Group. With the failure of Swissair, in 2002, the group dissolved along with the program and a company was formed to give each former member airline an individual frequent-flyer program.
In October 2001, with the bankruptcy of Swissair, the Qualiflyer Group disappeared and TAP found itself struggling with a problem. So, according to the interviewee C:

“(TAP) quickly had to decide what to do in terms of telephone answering service for our markets in Europe. The first experiment we did was with France and we started answering calls from France, with good results. So, we started opening new markets. We had to proceed to admissions and to prepare the resources for the coming market. In 2003, UK came, and afterwards all branches in Europe, Morocco, United States and Brazil, Canada and recently Austria and Greece. We currently serve 21 markets here.” (Interview C, personal communication, 25/07/2012)

We visited TAP Contact Center and saw that it works in new, clean and spacious facilities, with 150 workstations. The operation was explained to us (see model B in APPENDIX 4 – MODELS), as well as the logic for shifts schedule and even seat occupancy, that obeys to rules intended for a better sound distribution.

TAP CC works from 7:15 to 00:00 every day (including Saturdays and Sundays) and in perfectly calm situations, like the one we encountered when we visited it. TAP CC has got two people on FB, continuously operating, and about 40 answering phones in six languages – Portuguese, Spanish, French, English, German and Italian. The CC team has 150 people (from whom 15 are on FB), which is justified because it works in shifts. When there are holidays and complicated situations of crisis, extra shifts and extra people are needed.

**Facebook**

Although we might think that operations on FB (see model C in APPENDIX 4 – MODELS) and CC are the same, there are some major differences, which were mentioned in the interviews and are shown in Table 3:

<table>
<thead>
<tr>
<th>Table 3 – TAP Changes due to FB</th>
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<tbody>
<tr>
<td><strong>Visibility</strong></td>
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<td><strong>Time</strong></td>
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</table>
But FB also differs from previous forms of customer service in some important issues (see Table 4). Firstly, FB is free or, at least, doesn’t have any costs associated with it (either than the cost of internet connection), while posting a letter or doing a phone call have associated costs. Secondly, the time variable, which can be considered in two aspects:

- **Time to arrive to destination** - Sending a post mail (normal mail) takes two days to arrive to destination, and a phone call to TAP CC, due to the
annoying Automatic Call Distributor - ACD system,
\(^{40}\) takes at least 1.5 minutes, whereas posting a message on TAP FB takes about 10 seconds.\(^{41}\)

- **Time to answer** – Although we weren’t able to understand if there is a deadline to respond to the customer by post mail or by phone call, we have realized that there were several FB messages complaining about a missing response to complaints sent by post mail or by means of CC, whereas the complaints made on FB were solved. There is an established goal of a 30 minute response on FB.

Another major difference among these three customer services is the fact that the first two services (post mail and CC) aren’t visible to others (and there is often no response to the customer message), whereas, on FB posts, the responses, the time posted and the time of the response are visible to everyone.

\(^{40}\) An Automatic Call Distributor (ACD) is a computerized telephony system that analyzes incoming calls and distributes them based on specific instructions that define how the calls are to be handled. It has both a hardware and software component. It is considered the hub of a contact center and the most critical technology component. An ACD can range from a few lines for a small system to hundreds of lines, such as systems used in large contact centers (howto.gov, 2012).

\(^{41}\) Phone call and FB times tested by the author on 06/08/2012.
7. ANALYSIS AND RESULTS DISCUSSION

Analysis and Discussion of the results was carried out based on the theoretical literature review and on research question and content analysis of interviews and documents collected.

The main findings resulting from this study concern the fact that, although TAP is a public company and as such has a different dynamic of change, it is possible to do it. And as results from the already mentioned interviews (see APPENDIX 2 - INTERVIEWS TRANSCRIPTIONS), TAP did it:

Table 4 – Differences in three types of customer service

<table>
<thead>
<tr>
<th></th>
<th>Post Mail (Model A)</th>
<th>Contact Centre (Model B)</th>
<th>Facebook (Model C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Needed to receive</td>
<td>Minimum 2 days</td>
<td>1.5i</td>
<td>10”</td>
</tr>
<tr>
<td>Cost</td>
<td>0,47€</td>
<td>0,25€ / min</td>
<td>Free</td>
</tr>
<tr>
<td>Duration</td>
<td>NA</td>
<td>3.5i</td>
<td>27”</td>
</tr>
<tr>
<td>Time to answer</td>
<td>Not known</td>
<td>Not Known</td>
<td>30”</td>
</tr>
<tr>
<td>View Internally</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>View Externally</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: prepared by the Author
• Firstly, the administration motivated top managers by sharing with them their knowledge and by putting everyone speaking the same language and knowing how to read the internal documents. With this, they were able to make everyone consider the company as a whole, instead of just their own “yard”.

• Afterwards, they started changing TAP organizational culture and changing it to a customer’s focus vision and mission. And, with this, they changed the company image inside and outside Portugal.

• TAP has also a big innovation process that relies on the knowledge of their employees, suppliers, customers and associates, instead of using knowledge of external sources. TAP uses open innovation and crowdsourcing.

• With the massification of social computing and social networks, TAP understood that such tools could be used to customer service, and did it with FB and Twitter.

So, we can say that, although TAP meets almost all conditions that literature postulates for the use of social BPM and, above all, to BPM success, it misses one essential condition: the systematic handling of processes according to a BPM methodology.

And, even though there isn’t a formal BPM area, it is possible to identify a BPM lifecycle in TAP FB communication process. According to Scheer (2010, p. 242), BPM lifecycle is composed by four phases (see Figure 1 – BPM Lifecycle in sub-chapter 1.3. Business Process Management (BPM) of this dissertation) and, at TAP, the main difference lies on the fact that the process lifecycle started with the implementation phase, because this process change hadn’t been planned. So, at TAP, BPM lifecycle can be described as the following:

• Process Implementation – TAP has created a FB page only for marketing use, but, due to the volcano crisis, TAP has understood that FB was a powerful communication tool.

• Process Control – Controlling and measuring are important resources. If something cannot be measured, it cannot be managed. Since the first days, TAP has controlled and monitored customer acceptance of TAP FB, and has realized that customers were joining the page and that the number of posts were increasing.

• Process Strategy – with these two findings, TAP began defining a strategy that included questions, such as (1) who would manage and use TAP FB and (2) what kind of language would be used on TAP FB.
• Process design – although there isn’t a formal design of TAP communication process, TAP understands the changes that have occurred in communication process. From the collected information, we did three communication models at TAP – Post Mail, Contact Center and Facebook (see APPENDIX 4 – MODELS).

The ability for BPM to permeate the organization and drive value to multiple areas of the business is heavily dependent upon organizational culture (Lock, 2008, p. 12) which according to Brocke (2011, p. 358) is essential shared values supporting the process organization; this awareness of how cultural aspects affect and are affected, is essential for BPM and as mentioned TAP has by now an organizational culture able to support BPM.

Despite the obvious improvements achieved in processes change at TAP, such as the communication process and FB and other ones mentioned in the interviews (i.e. payments process and processes under the program of cost reduction), TAP’s option of not having a formal BPM area seems to be due to the fact that this is a fairly large organization, divided into several departments, and to the fact that TAP Information Systems are centralized in a Group organization. However, analyzing the exposed in chapter 2, Literature Review, of this thesis, we have noticed some disadvantages of changing business processes in ad-hoc mode:

• Absence of effective measures to evaluate the effectiveness and efficiency of processes and quantification of time and costs.
• Occurrence of duplication of efforts, since the same process can exist in various departments.

TAP has a leadership that upholds transparency and, consequently, knowledge sharing among its employees. And, from the available literature, we can realize that this positioning has an effect on the perception of trust and motivation of employees, which is confirmed in practice at TAP (see sub-chapter 2.4. Knowledge Sharing of this dissertation).

But, despite having good basis to foster knowledge sharing and, consequently, knowledge creation, TAP hasn’t developed a knowledge guidance that would allow organization to systematically capture and reuse tacit and explicit knowledge from its stakeholders. Yet, TAP is considering the implementation of a collaborative platform, which, in the words of the Interviewee A, will bring together the company's employees that are scattered around the world, and will allow to gather knowledge that can be used by anyone, at anytime and anywhere.
From this study we can presume that, the use of social BPM is important for organizations, but we can also understand that, the three other constructs - BPM, Knowledge and Social Computing - analyse in this thesis, influence each other and are also important in the implementation and success of Social BPM and ultimately in the competitiveness of organizations.

We are living in times of change, due to many and diverse reasons, such as economic and financial crises, fast introduction and evolution of new technologies and even evolution and development of organizational management; and so BPM is more important than ever, since it allows changes operated in organizations to be planned, documented, controlled and evaluated (see chapter 1. BUSINESS PROCESS MANAGEMENT (BPM) of this dissertation) fulfilling the BPM lifecycle.

However, knowledge inside organizations sometimes isn’t enough and in the past many organizations appealed to knowledge outside its boundaries through outsourcing and / or external consultants. But it can also happen that knowledge needed is inside organization but the person (or persons) who holds it, is not motivated to share it. This is significant because, as mentioned knowledge is created and resides only in peoples mind and, getting people (internal or external) to share their knowledge, can improve organizational knowledge and in consequence improve organizational performance (see chapter 2. KNOWLEDGE of this dissertation).

Thus, one of the major benefits of Social BPM is precisely the social part, since it can bring to process change, diverse voices which bring also knowledge that organizations wouldn’t have access or that could have but in a costly manner; internal people don’t share their knowledge for free unless there are favourable conditions, such as organizational culture and a leadership that values the information obtained. External voices are also important since it can be a cheaper way to gain knowledge that doesn’t exist in the organization both from customers and/or business partners and suppliers.

Interchanging knowledge with peers (or others) is something that exists almost since the beginning of the mankind. However, social computing can now play a vital role in capturing this knowledge (see chapter 3. SOCIAL COMPUTING of this dissertation), since it has the power to bring closer people from different countries, with different experiences and different sensibilities and, unlike what happened in ancient times, in only some seconds.

Yet, this can be both good and bad. Good, since it brings voices that without these tools would difficultly arrive to organization; bad because the use of these tools,
open to everyone, can also bring to the process non useful voices that can cause entropy. So, it is very important to select which voices to use, from which tools and in which BPM lifecycle phase.

The use of social computing tools, which may include social networks like Facebook, Twitter and LinkedIn and/or Social Software such as Wiki’s, Blog’s, forums and collaborative platforms, can help organizations to capture external knowledge shared to/from organizations which can amplify internal knowledge, facilitating processes improvement and consequently affecting diverse organizational indicators (see Figure 7 – Social BPM), such as:

• Efficiency which is a ratio that reflects a comparison of outputs accomplished to the costs incurred for accomplishes these goals;
• Effectiveness that is defined as the extent to which an organization is able to fulfill its goals;
• Productivity being the relationship between the output generated by a production or service system and the input provided to create this output;
• Innovation or the generation, acceptance and implementation of new ideas, processes, products or services;
• Agility which is the ability of an organization to sense environmental change and respond efficiently and effectively to that change, and
• Reputation of an organization, and changes in its reputation, influence the organization’s relationships with its stakeholders and in consequence can affect the way they share they knowledge with the organization.

And so, from this study we are able to deduct that, by affecting these indicators, Social BPM, BPM, Social Computing and Knowledge, will consequently influence the competitiveness of the organizations.
Figure 7 – Social BPM

Source: prepared by the Author based on literature
CHAPTER 5 – CONCLUSIONS
1. CONCLUSIONS

The purpose of this study was to understand if SN can help organizations improve their BP and to understand how Business Process Management (BPM), Knowledge, Social Computing and Social BPM interact and influence each other and help organizations optimize their processes.

We conducted a literature review across these four themes. First, we took BPM into consideration, we defined BP and established the importance that BPM can have in an organization, as there are several pieces of evidence that it helps achieve organizational competitive advantage. The literature review also included the item “knowledge”, since it is also widely proven that organizational knowledge creation is only possible through individual knowledge creation and sharing among and within diverse stakeholders. The literature review has also shown that organizations can benefit from alternative forms of collaboration, such as open innovation and crowdsourcing. We also showed that SN can be used in different ways within organizations, and may even be a form of organizational learning, allowing the company to approach its stakeholders, among who are included not only customers and suppliers, but public opinion as well. Finally, we discussed change management, since there is evidence that one of the main reasons why business processes changes fail is because organizations don’t promote effective change management and, in most cases, do not have an organizational culture that serves as facilitator of change.

Our empirical effort consisted of conducting a case study of TAP, since this organization is present on social networks, namely on FB, and uses it in three different areas: Marketing, Corporate Communications and Customer Service.

Regarding SN in general and FB in particular, this study allowed us to conclude that TAP has changed its communication process, both in its internal and external aspects. Internally, FB visibility has changed sensibilities and employees have started caring more about customers. Furthermore, FB has also brought together different departments in two different ways: Firstly, FB itself is managed by three different departments with different communication roles and language styles: the Marketing, whose concern is to promote TAP services; the Communication & Public Relations Department, which focuses on institutional communication and sensitive cases, and the Contact Center, which is responsible for customer service. This configures a process centric approach and it is amazing that, although there aren’t any written rules concerning the distribution of the above mentioned tasks, every department knows their rules and their limits. Secondly, TAP has set up an internal social network with
people from all departments, aiming at giving responses to customers’ complaints on FB within an established period of 30 minutes.

TAP has changed a lot in recent years and, even though there isn’t a formal BPM structure at TAP (or, at least, the people we have interviewed couldn’t identify its existence at TAP), from this study, we were able to conclude that TAP is aware of BP importance. From the literature review, we could also conclude that TAP would have benefited more, if it had changed its business processes by means of study, design and mapping, instead of having changed them in an ad-hoc mode. Results might have been even better, if TAP had had a formal BPM area, since it is widely proved that BPM allows companies to achieve a competitive advantage, optimizing resources and maximizing cost savings.

We were also able to conclude that TAP innovation process is based on internal and external collaboration. Internally, TAP has challenged its employees to join a cost reduction program that relies on their knowledge (tacit and explicit), by their suggesting of changes to processes aiming at cost reduction. Externally, TAP uses working groups and forums, which can also be taken as Social BPM.

At the end of this work, we could conclude that social BPM can contribute to business process redesign, since it uses social network collaborative tools, such as forums, blogs, wikis, twitter and Facebook, to facilitate access to different sorts of knowledge embedded in different stakeholders, such as employees, users, customers, suppliers and business partners, bringing together voices that, without such tools, would hardly be together.

2. LIMITATIONS

The fact that TAP hasn’t developed a BPM area was a limitation for this study. Since processes are mostly related to the information systems area, we tried to talk to Megasis to schedule an interview, as we thought it would be interesting to have their opinion. We sent them an email on 03/08/2012 and tried to establish contact by telephone on different days and at different hours (between the 03rd and the 10th August, 2012), but we never got an answer and until 28/08/2012 (date that this study was printed) we didn’t receive an answer to our email. In our opinion, this behaviour fits a typical public company in Portugal. However, since Megasis is a company within TAP group and the majority of its capital belongs to TAP, we were surprised by this behaviour and this limitation. We feel that, in this study, Megasis’ vision on this subject is missing.
Another limitation was the presence of Portuguese organizations on FB. Although Social Bakers refers to the existence of 505 FB Pages, only 147 are from organizations, and, from this number, only one is a public organization. The remaining ones include different categories, such as: entertainment, personalities (football players, politicians, authors, actors, singers, etc.), tourism promotion, NGOs and solidarity, sports (football clubs, sports equipment, etc.), music, radio and TV shows, museums, among others, that we weren’t able to categorize.

Even though FB is well implemented and is massively used by individual users, Portuguese organizations still don’t perceive FB as a source of competitive advantage. There are few studies about organizational FB use and there isn’t much literature about Social BPM and Facebook, which was also a limitation to this study.

3. RECOMENDATIONS FOR FUTURE WORK

As mentioned above, there is little literature and few studies concerning the main thematic of this work - Social BPM and Facebook – so, it would be worthwhile replicating this study for other industries, organizations and even countries.

TAP was pioneer in the FB customer service, in airline companies, but today there are more airline companies doing the same. It would be interesting to understand if the other airlines have a BPM area and if they make use of SN tools to improve their business processes. This can also be applicable to other industries and organizations.

It would also be useful to study organizational FB use, advantages and disadvantages resulting from its use, both in Portugal and other countries.
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APPENDIX 1 – PRIVATE MESSAGE SEND TO TAP VICE-PRESIDENT

Luiz Da Gama Mór

Ana Vaz Vieira
Caro Eng. Luiz Mór

Estou neste momento a preparar a minha tese de mestrado em
Estatística e Gestão de Informação no ISEGI – NOVA, sobre a influência
que as redes sociais em geral e o FB em particular podem ter em
alteração de processos de negócio.
Escolhi a TAP pois como utilizadora tinha uma vaga noção da importância
que o FB da TAP tem nos seus utilizadores e como ficam com uma
excelente impressão da empresa.
Após reuniões (entrevistas) com o Departamento de Comunicação e
Relações Públicas na pessoa do Dr. André Serpa Soares fiquei ainda mais
convencida das potencialidades do FB na TAP e mais ainda após as
conversas tidas com o Dr. Gil Trigo e com o Dr. João Santos do Contact
Center da TAP.

Destas conversas reuni já bastante informação, e soube que o Sr. é um
dos grandes mentores do FB na TAP pelo que penso que seria
importante ter a sua visão sobre este assunto.
Assim, estou a escrever-lhe no sentido de saber se terá disponibilidade
para me receber e falar um bocadinho sobre o TAP mas principalmente
sobre o FB.
Esta mensagem foi escrita em linguagem FB, pelo que peço que me
desculpe a “infranuidade”. 😊

Agradeço desde já a atenção dispensada.
Cumpriimentos
Ana Vaz Vieira

Luiz Da Gama Mór

Oi Ana, é um prazer. Agende com a minha assistente, Carmen, email
xxxxxxx@tap.pt. Abraços.

Ana Vaz Vieira

Muito obrigada pela sua atenção. Vou enviar email. 😊
APPENDIX 2 - INTERVIEWS TRANSCRIPTIONS

Interview A - André Serpa Soares (Communication & Public Relations Department) July, 16 2012 - Duration (59 min)

The launch of TAP social networks project, was already being thought, we had some work done, there was a proposal to implement TAP in social networks, but that was more or less put in the drawer, until initiated by the TAP Marketing Department. At that time FB served purposes which were not exactly those to which FB was intended. TAP FB served only to promote campaigns. It was a publicity thing rather than a relationship. But FB is not about that; social networks are not for that. In our opinion, after having already studied a bit about it, SN are to talk, to engage, to establish relationships with diverse stakeholders, including customers and public opinion.

Thus, the main objective of, and the way businesses should be on SN, is to talk to people and to establish links and relationships with people, not to say we are very good, we’re too cheap, we have the best product which is what many companies still do. And they are wrong, for this purpose is not there that they should be.

We then established a FB page with few fans that worked like an experimental thing which we can call a soft approach. In late 2009, TAP did something very funny here in Lisboa airport; we did a flashmob, with many people dancing at the airport. And released the video on youtube and strangely by the action of TAP flashmob on youtube, TAP FB has grown to incredible numbers and therefore we looked at this phenomenon and we thought: ups, now we have a lot of people here and now? Let us think better of it.

We start doing some training, people have had training and theory gained in relation to social networks, I also did it, as well as other areas and other departments, including the Marketing Department and we all done Social Networks training; The first courses were not made in Portugal, some were in Berlin and others in Brazil; by the way Portugal still knows little about it, is something that is little studied and it was something that I spotted recently when I did a post-graduation in Social Media at Catholic University, where I think I learned little or nothing. I think we (TAP) are ahead.

Although this is a new area in terms of theory, the academy studies of social networks is also a subject little studied and there isn’t much theory or literature on
In practical terms there is very little know-how yet, except for companies such as TAP and although TAP already has a strong presence, we are not the default.

**We had this extra large number of fans on FB** and then we had also more or less at a time a small controversy that ended up out in the papers that was a group of pilots who went to TAP FB and offended each other. It was something between them, had nothing to do with the company but it ended up on TAP FB; The story is simply: Pilots when not in service are entitled to upgrade, they buy tickets in economic class but if there is place in the executive class they are entitled to upgrade. But a flight commander did not allow another pilot to travel on executive because there were people who had priority in this upgrade and there were no executive places; the pilot went to TAP FB and insulted the colleague. And so we also said this: Ok FB is good if we use it the good way, but we also need to be careful about what our employees can do on FB. **So we have these two lines of action**: How to be on FB, how to relate with stakeholders and how to direct the behaviour of the employees of TAP in FB.

**This work was done in two directions.** The first direction was a boom and it was our great learning: the volcano crisis that stopped air traffic across Europe. This boom was our great learning: the volcano crisis that stopped air traffic across Europe. This was when we learned more and began to use it more intensely and when we started having a truly fantastic number of FB fans. Air traffic remained closed throughout Europe, first in northern Europe for a week and then another week in Portuguese and southern Europe airports; all our passengers wanting information called to the CC which could not answer all contacts, it was impossible! So, customers went to FB, found that TAP was on FB, became fans and asked questions in FB.

**We learned very quickly**, it happened the first day and soon we found we had a problem in FB, questions and questions and questions falling there and we have to solve it quickly and so we decided to give answers on FB; and we used FB as a communication channel with customers to meet their specific questions. This was done in this first week of the volcano where the air traffic in Europe has been closed. There was a great liaison between our CC which appointed a group of their employees to pay attention to the FB and the FB who were responding as they could. Our marketing was a link between the FB and the site of the TAP, there were lists of cancelled flights, flight taking place (at first time the number of flights that took off were less than the cancelled flights) and therefore had a large joint here and our (Communication & Public Relation) role was writing and placing on FB all relevant
It went very well. There was a channel that provided customer service. And soon we understood that there was a change in the communication process and the issue of FB customer service was born here and is what is mostly done today in TAP FB - customer service. Before FB, contacts were almost exclusively either via travel agent, but there TAP does not have much action except for information that gives them, or via CC when a person has a problem picks up the phone and call. But now, people go to FB and leave a question (in any language, any time) and within 15-30 minute there is an answer.

CC employees have information and are prepared to answer the vast majority of questions since many of them are the same questions that they answer on the phone. There is an outstanding team that continues with phone (15 rotating elements) and also answers FB. It is a dedicated team within the CC.

There's another component that is Marketing Department that continues to energize the page, to make promotions, they put a Rome photography and say this week go to Rome; they also use proper rules of FB to have at least two post per day because it stimulates traffic, people's interest, people interact and therefore we obey this principle of good academic marketing; A third element is our communications & Public Relations normally involved in crisis management, the volcano crisis, the strike crisis and on those times we do a takeover on FB and respond to all most sensitive or political issues that are placed while CC continues to answer those trivial things.

There is here a sort of a triangle in terms of response in FB: we have the CC, and then we have the Marketing and finally the Communications & Public Relations.

This implemented process represents the way how TAP FB works today. Thus, we have, in terms of the change process, the links among departments and, although there was communication among all three entities before, it has been improved because of FB. We all know perfectly well who does what, who responds to what and who is responsible for what. Therefore, this relationship among the three TAP services (often supervised by an Administrator, who is the one paying close attention to the FB and considered almost the “father” of TAP FB) is a joint that maybe was not so close before, but now it works very well. There is a process that has changed and that is the management of a tool for communication with the public.

But all organizations have a culture and at organizational culture level TAP has been changing in recent years, especially since this Administration came. TAP was (and
still is) a public company, state owned, heavy, arrogant and almost static, where
customers care little. There was also this whole change of organizational culture, or if
before the client was not a central concern of TAP employees, it is now. Today the
center of our attention is the client and TAP exists to provide a service to clients and
customers, who must be satisfied. It does not mean that customers always have
reason, the client may not even be right but TAP must hear him and must explain why
he is wrong. And this was not done.

This change in organizational culture was implemented top-down; it was a
change that was desired by the new administration (new that already mean 12 years,
we are in the 13 year) but these changes in organizational culture are time-consuming
things and I think that FB also contributed greatly to this change. It was another step in
this process, because the reality is that is something that is online, is available to
everyone, everyone can comment, and can read the comments of others and there is
this plan that organizations know, or at least we know that employees of TAP are,
potentially, the largest prescribers of TAP, are those who most supported TAP in all
forums in which they participate, in theory. Of course there are exceptions but most of
the times, the theory is confirmed. We feel that there are many TAP employees that in
their own murals, or in SN they are present, forums, blogs are the first to defend TAP,
we know exceptions do exist and will always exists but it is a phenomenon that is
confirmed.

So there is also TAP ambassadors role that is assigned to workers and there is
also the issue of workers going TAP FB and see what customers say and when you see
customers saying: I did a flight and I was mistreated, I called the flight attendant and
she didn’t care – this bothers workers and so there is an improvement in all business
processes that began through FB testimonies, which are online and available for
everyone.

Before FB existence, when a customer made a complaint, it was forwarded to
the department FALE CONNOSCO, that received both the complaints and the
compliments, but that was a closed circuit and it is now open one. Everyone has access
to it and everyone sees its available information. Everyone realizes and understands
about what is the perception that people have of TAP, of travelling with TAP and of
TAP service.

And so it was very important also changing the organizational culture, since it is
also a communication tool used by TAP that allows workers to realize that there is
world out there and that it is this world that we serve, and there is competition. There
are people who go there say you are worth nothing, low costs are good, and therefore employees start realizing that we are immersed in the world where we have to compete and provide good service.

In terms of communication there was another change. FB is both a tool of external communication, but also a source of information and a source of internal communication, but it is also communication for HR since it reaches all employees, or at least those who want to go there and change perceptions, change culture.

And from this point of view communication was also a concern that related to employees and the fact that they can go to FB and speak bad of colleagues and of the company. And there we had two options. The first was to initiate disciplinary proceedings and to punish them, and the second was to teach them. Some companies choose to go directly to the first but some companies do not allow employees to used FB. This was discussed at a senior level and it was understood that getting the idea that employees of TAP may be the main underwriters of the TAP, the main ambassadors of TAP we allow them access to social networks. It is obvious that this has to do with boundaries and limits are defined in a document that is the TAP's code of ethics that defines the ethical position of the company and workers of the company in society and created a thing which has been integrated into the code of ethics chapter as autonomous and in the end are the rules of online behaviour for TAP employees, if an employee is online and talk about the company or comment on any matter related to the company they are subject to these rules.

Training was provided and explained why it was important to follow these rules. Who joins the company has a host session (training) that also addresses this issue, there are areas where there are periodic refresches and, for example the crew every year has come for a refreshing where we told them to pay attention to these rules. This document is available to everyone on TAP website.

The option of TAP was to pass from a static thing, and closed state to an open and fully transparent company. TAP is wide open to the world, with excellent results not only from the standpoint of communication but also from a business standpoint. Till a few years ago the company was a doomed venture, and here it is, supposedly with various potential buyers, today is a company that has become attractive, and it was not.

The gains are evident here. In fact this transparency and openness, both inside and outside, is a great contribution for people to feel they are involved in society and they have to interact with it.
The next step could be to an internal collaborative platform. This is one of the developments that we should have. TAP is perhaps the most multinational company based in Portugal. We are present in 40 countries with offices and staff operating in maintenance, care services at the airport, assistance at the airport, ground handling and so many other people displaced throughout the world that sometimes needs information on time and there isn’t. If there is a collaborative platform, or a wiki where they can find information or ask it to another colleague who is online in other part of the world, this collaborative platform can help improve processes and improve our business.
TAP cost reduction project was launched in 2010 with a top-down approach. Rather than having an Administration that says “I want to reduce 10% of costs and that blindly or with a gauge that may not even be realistic to achieve”, we launched a challenge to all departments and organizations and asked each area to analyze and see what they could do to reduce costs, and they became responsible for that costs reduction. Of course, most of times this is done with “business as usual” or by renegotiation of contracts, but sometimes it is done by changing process.

It is a project that is not closed, this is a 2010-2012 period project and we still can have one or more projects, since there is no limit; there is a centralized entity (myself) that gather all this information and show to those able to decide (steering committee) and from there the project has its own life. We don’t put many obstacles in particular, we don’t ask for reports but we always evaluated them.

Some things are pure and hard reduction, sometimes just because I renegotiate, instead of paying 1€ I paid only 0.90€ which in a growing company such as ours that has doubled in the last decade the fleet and destinations, have a strong impact.

It is this dynamic that the project has. I’m not much of an apologist of triennia projects; it is easier that comparisons are done annually, so it is more likely that when this project ends, later this year, we will launch a annual project, because it is easier for everyone to identify, have an understanding and aware-those things.

There isn’t a BPM area in TAP. There are many situations of process changes, but the only area that models its processes is the maintenance one, since things are very procedural, and there processes models may exist. In other areas and departments processes are not modelled. But TAP also has a large component of innovation. We are developing system internally.

There are also many changes that result from collaboration with business partners. TAP participates in various working groups, such as the Airbus, EASA (European Aviation Safety Agency), EEA (Association of European Airlines), DOA (Design Organization Approval) and with other operators and MRO’s (maintenance companies) where there is sharing of information for the common good.
Our contact center is a bit sui generis. While most airlines decentralized their call centers to India and Pakistan where labour costs are cheaper, 10 years TAP has centralized and focused the attention of all contact centers here (in TAP Lisboa). Until the year 2000, we had the Qualiflyer Group in central London that had the triple C - Qualiflyer, Customer Care Center where they served all the Europe markets and we have here only the mainland Portugal and the islands market, with about 40 people.

On October 2001, the Qualiflyer Group exploded and disappeared and we quickly had to decide what to do in terms of telephone answering service for our markets in Europe. The first experiment we did was with France and we started answering calls from France, with good results. So, we started opening new markets. We had to proceed to admissions and to prepare the resources for the coming market. In 2003, UK came, and afterwards all branches in Europe, Morocco, United States and Brazil, Canada and recently Austria and Greece. We currently serve 21 markets here.

FB responds primarily to the Portuguese market and therefore no significant impact in terms of calls. FB is an alternative channel and a channel with a differentiated customer service. On FB, we solve the customer’s problem, but, if someone calls the CC with the same problem, we will give him the necessary contacts for him to call. For instance, if someone has lost his suitcase and makes this complaint on FB, we are the ones who are going in search of the suitcase and the ones who will respond to the customer. It is something that is part of our skills. Eng. Luiz Mor, the administrator as a big fan of social networking is our mentor, but after the beginning with the ashes of the volcano with some success, we have been managing various different situations and have now about 15 people prepared to respond in FB within the 150 we have CC in the universe.

In perfectly calm situations we have two people on FB continuously throughout the operation of the CC - 7:15 to 00:00 every day including Saturdays and Sundays. The 15 justifies because we work in shifts, we have holidays and complicated situations of crisis when we need to have four people in each shift. In times of crisis is very complicated because we have no alternative solutions to give the customer. And there are always difficult situations. Calls that can take five, 10 or even 30 minutes and are often tense, with bad mood customers. A complicated call may occur at any time and we have periodic refreshes, made internment with CC coordinators and we try to have
this done periodically. We also have the e-learning platform which helps organization get closer.

We have employee rotation of about 20% per year, every year we open new recruitment, usually during the month of August. This year we need about 12 people who were people who left and went to board or to other TAP departments, they are all graduate and speak languages. TAP offers language courses often, but in the contact center we pay 50% of the training that people want to do outside of TAP, by presenting the receipt and positive use. So, when TAP is recruiting for board staff or another department I lose some persons which are tricky because they are people who have been here for 3-4 years and this time begin to render investment, are automated and had all the skills in and out. Turns out to be an asset to the company and they can grow professionally. This is an entry point to the company. And as general manager I am proud that “my people” are much desired by the company, the skills, contacts with other markets that give them knowledge of regulations, tariffs, and therefore are always in great demand and are spreading all over the company either in FALE CONNOSCO, as in marketing or on board.

The CC receives about 3500-4000 calls daily and in peak situations we received 7000-8000 call a day, which we are clearly unable to attend. In a normal situation, efficiency is around 98% - 99% and in peak situations we have an efficiency of 50% which is frankly bad. The FB introduction happened in the middle of a crisis situation (volcano ashes) and FB contacts pass from 70-80 / day to 300-400 / day.

The FB has this advantage. The response is immediate, no need to write much, just answer while on a call, we cannot disconnect the customer and end the call. However, FB had no impact on calls. We are a country that still has appetite for contact with the customer and this is reflected a little on what are our sales, unlike the industry trend (with a decrease in CC sales and increase Internet sales) we increased sales in the CC and on the Internet and decreased only in the counters. Our CC when compared with the industry is an exception since in the past year has increased more than the internet.

Persons who work in the CC have three clearly defined objectives: (1) A sales target which is defined by administration to each year; (2) Speed in service and (3) Quality in service.

And although any of these parameters have clearly defined objectives they are perfectly irreconcilable: To sell one cannot be fast, and if it is fast, quality decreases and so when trying to achieve these three things, one of them will be compromised.
Some people can achieve almost all of this, but you have to have some talent and train for it, I have people here with many years, the case of Arminda that this year will exceed 1 million Euros selling and we have several people who do not go this far. It comes from experience, but if you say that a person who sells a lot has quality, it is difficult. And being fast in answering calls is even harder...

Almost 28 years ago I did the same, I joined TAP to do the same at the Marques de Pombal shop, and by that time some passengers call me at night and said "I'm calling at this time because I want to be treated not dispatched. This is the kind of this feeling that we pass to passengers although it depends of the experience of each one.

Historically, after August, 15 there is a reduction on the number of calls, but it varies from market to market. Typically the French market increases in March when Portuguese emigrants make reservations for summer holidays.

Some customers use FB to give suggestions which are collected and passed to the FALE CONNOSCO area and then to departments. And those answers which need an institutional response from the company (eg, time change, new routes, frequencies, etc.) are sent to Communication & Public Relations Department, which prepares a response that is afterwards adapted to the "FB language" (less formal). It has always been a request from Eng. Luiz Mór not to do copy-paste, since messages from the departments are very formal ones; consequently, they need translation to FB language.

When an issue is more difficult to answer, we have Eng. Luiz Mór for good and bad; on one hand we know we have an administrator with eyes constantly on FB. To answer on FB fast, he created our internal social network. When we begin two years ago, he committed himself and established with various departments to raise awareness that being a matter of FB, it was a necessary to answer as soon as possible (we have established an response time of 30 minutes) when the issues are more sensitive and we realize that the question is going to be there a day or two, Eng. Luiz Mor goes behind and speak directly to the area Manager. It has the advantage of fast response but disadvantages of having a technical response that must be translated into human language to go into the FB. This interaction has resulted very well and there is a strong awareness of the entire enterprise, all mail that has to do with FB, the first word in subject is Facebook and they already know that this need an immediate answer, even though they only say that they are dealing with it.

FB has approached the company and the entire company realizes the importance that FB has now in TAP life and realizes that TAP communication changed
because of the FB. But only the commitment and recognition by Eng. Luiz Mór makes FB be recognized throughout the company. Without the involvement of the Administrator things would not work the same way. Eng Mór is very assertive in this, he is a Brazilian and Brazil has a great appetite for communication and he is a communicator par excellence. He comes twice a day to the CC, talks to people and this is very motivating. He speaks with people, encourages, congratulates; although frightening (because he is his Administrator) it makes people comfortable.

The main difference is that administration knows the business. For many years, we had political managers and people that didn’t understand the business. The new Administration is not political, knows about the business, concerns itself with the business and focuses on teaching the business. He also comes in a lot and speaks with people, sits beside them and asks, speaks and listens.

Some years ago, AMEX and VISA told us that either we did something to prevent fraud or they would withdraw our payment license and accuse us of collusion, because we had high levels of fraud and did not do anything against it. So, we created an urgency team, with the participation of various departments (Vitoria, finance, contact center, branch, Megasis, etc.) and a document was presented to the Board, proposing several immediate measures. One of them was the creation of the fraud prevention department, which was accepted. At the same time, we made a partnership with our supplier CyberSource and acquired a model for the prevention of fraud, associated with the payment application. This model worked for a few months, but then we ourselves became a bit more demanding. We thought that we should not be harming our best customers. Whenever there was doubt in the transaction / payment and a validation demand was necessary, we asked the customer to pass by our offices. But, in the meantime, we also had excellent passengers; so, we asked CyberSource to include in this model the reverse of the negative list, that is, a positive list of passengers (who frequently flew) that deserved our confidence.

This had impact on cost reduction, since we continued to develop and to improve this application. Our medium term objective is to eliminate the CyberSource platform and to have our own. At this point, it has already captured the interest and the curiosity of other airlines, including Amadeus, and other airline companies, who have shown interest in it.

Without the involvement of the Administrator, things would not work the same way. Only with the spectacular commitment of Eng Luiz Mór and its philosophy to solve customer problems, we were able to achieve this.
TAP is better than its image. This is something rather difficult to say because the Portuguese in general also have a passion for TAP, a fascination ... but also look to TAP in a way that numbers do not reflect. We ourselves now in the process of privatization, we show the numbers to banks, which are who can sell TAP, and it takes time before they believe what they see.

We are one of the most efficient in airline in Europe, and although I say this, when I show the numbers, people have difficulty seeing it. The main indicator of cost and therefore efficiency in an airline, it is cost per seat / km\(^2\) of an airline, we had 6.7 cents per seat / km. And this project we are doing to present to buyers of the company we intend to reach 3.5 cents per seat / km. Now to the future projection, Power Point accepts anything but the difference is: We close the year 2011 with 3.7, we have grown from 6.7 to 3.7 then we doubled the company with all the support area of the TAP that we join in a thing we call TAP Services (which does not cover the operation itself), but the whole area of support has 40% less people than it have 10 years ago.

40% less people than it have 10 years ago and doubled the company. You get the idea of the increase in productivity that this company had.

This company has had for a very large amount of time, administrations who were unaware of the business; Moreover, there is a category in Portugal called Public Manager which is a category that has the power and there is a misconception in Portugal that any good manager can be manager of anything and then there are people who circulate from a public company to another public company. They run a hospital and then they go to a transport company and then will manage an airline, as if this was enough and it is not!

And these companies like TAP that has a very high technological sophistication, far ahead of all other sectors, though some are also complicated like the management of airports, but not in any way compares with the management of airline and what ends up happening is that it creates a technical culture within the company that seeks to defend from the administration and learn a language to deal with the different Public Managers that pass by.

It’s almost like cheating the Public Managers to protect the company, so there is a dynamic between the middle managers and the administration very interesting.

\(^\text{42}\) Refers to monetary value corresponding to the expenses related to transportation and per seat per km (http://tinyurl.com/cr9cznc)
When we arrived here this was the first shock. And then I had to sit down with the managers and say: let me tell you something, I understand it there ... I did it. Let's start talking again, because I've worked in all functions in an airline. I work in an airline since 1972 and I started as a maintenance engineer, my first specialty was turbine maintenance, I attended engine maintenance courses, I manage the school of pilot training, I know the whole area of pilots, I was director of logistics operations, operational control center, airport management, I know deeply the airports area, I was commercial director, I was director of marketing, I was vice president of sales and marketing, I mean I do not know the financial area, but the rest I have worked at all. I worked on material, import, export, human resources, so I have no difficulty in managing an airline. So that was my first shock.

The second issue was that we saw that the company had very good technical qualities, even superior in some aspects to what we had in VARIG, which was our experience. In my area, the commercial quality of the people here is far superior to what we had there, but it does not even compare the delegates of the TAP are far superior from the one in VARIG and then I realized I was learning and that has to do with the country. Portugal is a small country and exporter, facing tourism - is a country that receives! It has 10 million inhabitants and receives 10 million tourists. Brazil is a country facing its own navel and so VARIG delegates abroad existed to deal with the Brazilians and had little penetration. Also TAP maintenance is very good, the flight operations of TAP are very good, but we were surprised by the profound ignorance of business, the amount of stupidity and nonsense that these people were saying of the whole! No one had an overview of the whole, people did not know the business, did not know the basic rules of how a company competes in market, how the market works and how it all works. And because this were (and still are) people very specialized, very aware of them “piece of the business”, they had absolute certainty so it was a great shock in the beginning, in the middle of a widespread mistrust, we arrived here in a difficult political situation, an extremely difficult, internal and external, environment. When we got here, I had never worked in a company where we were not in economics newspaper page but we were in the cover.

Then we did a project that I still think it was the best we've done here at TAP. We did a project where we needed to do training for a large group of middle managers because we had to rely on them and this training had to be a process of accepting the new administration. So we went to a university (it has to be outside TAP) with 100 intermediate managers together and stayed there two days with them. We asked for a
consultant, a professor of HR development that made a link and all of us (members of the board) were the instructors; So it begins with Michael Connolly who is the financial, making a "strip" of the company's economics, showing the numbers, all numbers that we had – there were a lot of rumour, confusion, this makes money, this does not give money, this loses money, the TAP does not win - a lot of misinformation and even a lot of paperwork that were deviated to the media which also gave a wrong treatment of that papers and that wrong treatment echoed here in the wrong way and it was used politically in a wrong way. It was a tail caught in the mouth.

And Michael showed the balance sheet, provided all the information, did benchmarking, compared with the average of all other airlines. And explain TAP problem of liquid assets, the money problem we had, the money we need to have, compare TAP billing with the average of other companies, the different yields that different areas had, etc. He taught people to read the document that the administration has developed internally and that middle managers began to receive monthly and needed to know how to read - This is debt, here is the operating costs which are divided in these lines, the fuel is separated, HR. He taught how to read a balance sheet.

And so did every one of us (administrators). Torres came and explained how a decision is made for a new route, how we analyze the profitability of a new route, what is a hub, how to examine the productivity of the plane that and which is more important the plane productivity or the whole, the optimal use of resources, the cost of the plane is the most expensive but should the airplane always be flying. In short how it works, how to take a decision on price. There is (and was) a series of analytical tools, and this was very important because there was a lot of nonsense and stupid things said and when he explained the decision process people became silent.

I did a presentation on commercial area trends, the issue of Internet, direct sales, travel agencies, the costs that arises from each channel, where we want to go and did something that was remarkable at the time, that was to say that TAP is a company focused on its own navel that mistreats the customer, that TAP is an arrogant company. I’ve said some very strong things, I spoke about branding, customer service and to where we must go.

Well, we were all there and present our diagnosis, and to where we have to go and because of the low cost model, the competitive threat of the market, the growth possibilities because we were a small country, and so on.
This was done seven times, each time to 100 people. And the last guests were all directions of all trade unions and workers committee. And of the evaluation questionnaires, almost 100% (including trade unions who are also employees) was of acceptance and surprise, and here began a very big change.

In fact we still had a difficult year. This was in March / April 2001 and throughout the year 2001, we did it also with the press, invite all journalists covering the TAP of each media and did another course where we explain how it worked an airline and explain what were the indicators - they used much the load factor and we explain that fill a plane is easy, making money is complicated. Occupation isn’t the only thing that matters, it is necessary to understand revenue per passenger. We explain the logic of the decisions we took and gave material for them to work.

At that time everything was leaking everywhere, and was used in the political struggle, even though we say that this would end up destroying the company. And so during that year we did a press conference every month. In the early morning we called all managers and we presented the month result, we analyze the numbers with them, all together and then we compared with the budget. And in the afternoon we did a press conference to present to the media.

That year was very difficult. Especially because in the first half usually we lose money and in the second half there is a recovery and the difference that will determine whether we win or lose money is at the end of the year, and although we manage to accomplish what we had proposed, we were always losing money and so it was too complicated to manage. We locked breathing and went, all months, ahead of the bull explaining everything.

But it was the turnaround; the year when we won the respectability of the managers and begin to be able to manage the company. Our project was to reduce by half the loss in the first year, to balance the second year and make a profit in the third year. And we fulfil but it in the midst of a whirlwind, a very strong thing.

In my activity more specifically, I had a project to change the whole picture, but we needed to change the product. We were perceived as a company with great quality problems, lots of complaints, problems of competition, we had different problems in different countries. We had serious problems in Brazil where we were perceived as a

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43 Load Factor Indicates the status of seat sales by showing the relationship between the total number of seats available and the number of paying passengers who occupy them. Revenue passenger-kilometers ÷ available seat kilometers. Differs from seat utilization, which includes non-paying passengers (http://tinyurl.com/blstile, 2012)
company out of the competition. The major airlines had flights to Sao Paulo and we had not. There was a complicated flight that sometimes was Lisboa-Porto-São Paulo and in other days was Lisboa-Rio de Janeiro-Sao Paulo, and not even the employees of TAP knew the day there was a flight and at what time. We were perceived as a company of the lowest category, basically the company's focus was the Portuguese migration, the “saudade” market, aged Portuguese people that allowed that TAP had five flights a week to Brazil.

But, here in this point of Europe we had to create a centrality in what we could have a competitive advantage and not clash with major European companies, because we did not have the condition, we did not have scale, we did not have size, and more important we did not have money and market to do so.

So my job was the question of brand image, product and mostly what I called the process of “Meia volta volver” (“back half turn”) which is the following:

The tragedy of large companies, and is even greater when they are service provider that exists to serve, and therefore have to serve the mission is to serve, is not thinking that customers are here for them... And TAP staff thought that when they wear a uniform they were authority, and we had to say that there weren't authority, that they are there to serve and the idea of “Meia volta volver” was going back to when the employee enter the primary level of the customer service career. But this employee, who is better trained and he is, he works for the supervisor who works for the manager, who works for the director, etc. Everyone works for someone and career assessment is what the supervisor says it is, then the employee is eyeing the supervisor who is who evaluates their work and in this organization there is a huge amount of rules in the area of airport, for instance employees has to deal with different things for each destination. There is a technical training, so employee relates well with the computer screen and with supervisor and face back to the customer. So employee’s role was to discipline the customer to fit within the procedures and processes of the company and this served in a certain time. But, the world has changed and TAP could not be caught off guard and end up closing.

So the aim of process “Meia volta volver” was giving power to the customer; and this was done with lecture, customer training, training of how to deal with conflict since many employees end up entering the conflict and took it personally and it was a catastrophe. We made several programs, one dealing with flying phobia since it is one of the greatest forms of conflict. We have a project together with the UCS (health care unit) to cure the flying phobia but that is actually a very expensive lab, with few
students and that many people have to be very qualified, first commander, maintenance engineer, etc. But that is a laboratory to learn about flight phobia and use this information in order to identify and deal with people suffering from this problem. We've had handcuffed passengers on airplanes because the attitude was really scared. Scared people drink more than they should, they take medicine and the airport is a stressful zone and the person who is working there long periods, stops realizing these things. So we build specific training that did not exist and build projects like the one to deal with a phobia of flying and sympathy project that came along with the training that was to deliver cards, or gives power to the passenger.

And suddenly FB arises... 😊 And I say, here's all the power, everything that I need to help.

Another tragedy in a large organization is that the person who knows the problem doesn’t have the power to solve it! I deal with complaints. I read the FALE CONNOSCO communications, but processes are too complicated. Understanding what happened is very complicated, mainly because the claim comes with many filters, a lot of manipulation, both on the customer’s side and on the company’s one. When we receive a letter of complaint, we do a study, a survey, but it is send to the area, so it is like when there is a conflict I ask the parties what happened, I mean I get two pieces of information that many times I end up not knowing what to do with it, because most times it leads nowhere and I still do not know what happened. I know I have a client who was treated poorly but I do not know what happened, and so when I started the FALE CONNOSCO, the intention was to bring the customer to the company. (…) But I wanted to get the basic causes that generate the problem, so as to correct them, in order to avoid their happening again. One thing is to solve the problem for that client; another thing is to take an apprenticeship. And I could not get an apprenticeship there. I got very little, the classic cases. There was a very serious problem with the Portuguese clients because I did not understand the level of conflict; we also have problems with German clients, because they don’t like our food.

So I learned very little there, to the point now that I already have a different view of FALE CONNOSCO, and I now say: FALE CONNOSCO seeks to know who is right and we will never know or very rarely will; so I came to the conclusion that being right is not important because there is a maxim that says the customer is always right, others say that is not always right and I say this: I do not care who is right. For me the important thing, what I want is that every customer is important, and so he has to have a good experience and if we cannot do that, we failed. So I stopped looking who
to blame, the blame does not interest me. Something happened there that went wrong and I just want to know what happened to not repeat the mistake.

And then there we made a profound change in the whole process that is occurring and that has already begun two years ago, but it is still happening (many processes are time consuming, because they are cultural and because it is a subjective thing) - where we start valuing something that is attitude which is subjective and even more in a technique company as this is. I think is even more difficult for Portuguese than to Brazilian to deal with this thing, because Portuguese need to have the things clearer, more objective, rational and speak about attitude is a different thing.

But that’s what really interests me - Attitude – what’s the meaning of recruiting someone to work with the public who speaks seven languages and give kick in 7 different languages, I prefer a person who does not know but have the right attitude to find out. The customer perceives the attitude, then what interests me above all is attitude and some people have attitude to serve and others don’t, people are different, thank God it is not wrong to say this but the idea is to recruit people with right attitude, attitude item is decisive for the performance evaluation, the item to choose who to promote to leadership is attitude. I have people with the wrong attitude, because pouting make they do a wrong service and one can use the rules to treat a client badly. And in my experience to analyze FALE CONNOSCO complaints, I learned that when people defend themselves saying that they did it by the rules and I say I do not want to hear, they break apart and lose their alibi. I do not want to hear because the attitude was wrong, in fact I’ve said in my talks to the forefront employees that they should even subvert rules and all of them look at me with big eyes and said but what do I say to manager? And I said, say it was I who told you to do so and send me an email. I will go wrong with you. You can make mistakes but you had the intention of doing something right. He could have done differently, but you had the right attitude, great!

So attitude is what is important. But a company does not change from one moment to another. And this process has caused a huge change in attitude among the employees themselves. There was a contagion effect. I'm not sure that a person who has the wrong attitude change of attitude but what I watch and I am sure is: I have people who saw that things were wrong but were repressed and suddenly they are released, then it becomes a different culture. The people who created the culture and oppress others to maintain that culture, have lost their position of strength and are
more on the boom and those who have the right attitude are more in a position of strength.

We have areas, for example the area of Contact Center, is young and they are marvellous, a wonder. The FB team is thrilled with their work. But I doubt it has always been so. It's very frustrating dealing with people hitting on you all day and your manager does not let them go ahead, does not give you resources, does not value you, then all you want is to get out. I saw much in the customer chain service the push game: after airport staff resolves the problem and there was nobody at the airport or tomorrow and then he is out of its turn. This is deadly for a company.

People have to feel valued, must have positive feedback. I read almost 100% of what happens on FB and I have an email address called FB team because I do not know who is there when a answer is needed. CC works 18 hours a day, 7 days a week and when I send an email to the FB Team most of the times I'm not asking questions, I'm helping them to answer or solve the problems because customers often ask questions that they cannot answer, for example when I realize we took a decision that they do not know, so I'm advising / explaining them or sending questions to other managers who have to answer me, because they (FB Team) cannot answer that.

When I see FB, I see a huge opportunity for all of those concerns. I saw it as a tool to help me in the “Meia Volta Volver”, and help me in the matter of approaching the client to the administration. Suddenly I have an instrument that the person who has the power to solve knows the problem and knows of it today. I cannot know about a thing that happened 3 months ago. People enter the FB by phone on the plane and then I call the control center operations, the vast majority of people do not realize that we do this. And I really do that. My role is not necessarily solve that problem but I know that when a problem is solved, I want to go a little further and find out why it happened, what I can do and make decisions that will transform the company into something a little better.

But when we started there was nobody doing this, no airline and today when you enter FB of large companies and there is a complaint there and there is no answer, because they are from very different departments. Then we had great difficulty in learning, we had no references, no one had references. In general the marketing area is the area of "nursery" of the company, when I want a new project, it starts there and then I have to put elsewhere. The FB was still there, I needed to know where to put, we had a difficulty we thought it was going to FALE CONOSCO area but then I learned over time seeing what kind of questions were put there, issues that were very similar
to the contact center. Never would have thought I would join it and now I have a contact center in its true essence, which is a completely different concept.

I was very eager to answer and sometimes I answered personally and what happened was that people start joking about this. They said: but what this guy is doing on FB? Isn’t he an Administrator? Shouldn’t he be working? They thought I was too important to be wasting time with it.

We also had a language problem. The language of FALE CONNOSCO is a very legal language because it has to be. We knew that the FB had to have a simpler language, young and fall in the exaggeration of using the K. But then customers complained and then we thought: We are TAP and need to found an informal language, cannot be other than informal, but it is TAP and have to talk straight, cannot be a teenager. TAP IS NOT A TEEN. TAP is an organization.

This was all trial and error. We were building. The first thing was we define a team that would do it and need train to it. So when we realized it was going to stay in CC, we chose the right people in - the people that João felt more comfortable putting on FB. We needed to have a fixed group, because we need to start a learning process.

Then I needed to have a support network, a team who I called “champions of the internal FB”, which helps to answer. It is an internal social network and if it isn’t an administrator to organize it, it doesn’t work. For a while people joked, they did things because I ask but then they said: “Mór has nothing more to do than playing with the FB.” It was a joke on me, but I always had so much conviction that I was having a fantastic thing and I was fascinated to see what my competitors weren’t seeing what I was seeing! Basically I saw that there isn’t something more important than the voice of the customer, if anyone is thinking that there’s anything more important than the voice of the customer is wrong. I do not care that people joked me because at the end they will realize the importance and is now an established thing in almost all organization.

Time to answer is completely different, in fact FB introduced, and is valid for any company in any circumstance; In the past one would put a letter in the mail, the email is already an aggressive thing you have to quickly respond in 24 hours and when you have something that has a maximum of 10 minutes to answer (but 10 minutes has fled there must be a maximum of 3 minutes), how to do this?

So I had to set up the internal social network and each department has a person who has responsibility over FB answer. The different crises, teaches us how to build things. We had a communication that has to change completely and give support
to this area until we find the tone, there are certain crises that are very controlled by
the communication itself, and we had problems with things we cannot answer, we
respond poorly sometimes, we learned and then I set some rules that we learned over
time.

One is to always be honest and is very easy to answer when you have this
assumption because someone asks a question in TAP FB at 10 pm, you do not have
support from departments and you can answer, at this time I'm not going to have
support only tomorrow morning. I mean when are you sincere and explain things to
people, they will accept that.

There was some concern that is the reason that most companies do not enter
FB, which I think is a wrong reason, but it exists, that is, there are people who think I'm
pulling critical because it is a horror, some phases like in high season, the problem of
flight delays, that make passengers lost their connections and then cannot go in next
flight because the plane is overbooked, the suitcase ends up being lost.; There are
times that is a massacre. Currently it is very difficult, and although we explained many
delays, people don’t understand. And that worries some people internally and what I
have said is: FB made so many good things between all the bad I already told of, is that
there was a distress of organizations with the growth of internet blogs because blogs
are talking about your company, even there is a software that search for this
information and that for me is not interesting and I never wanted that sort of thing,
and the great advantage of FB is that people who want to speak bad things about us,
speak on my FB because there I know what is happening. They will talk, even if not on
the internet will say to the mother, uncle, his nephew, to his friend, her boyfriend, will
say because they are mad at us and so will speak. So I prefer they do it in our FB,
because it gives me a chance to correct the problem and gives me a chance to retrieve
the customer. Not always we are able to recover, but I think we still pass the idea that
we recover less than we actually do, because many times is not still on screen and
have gone away and even though I say look you have to write on FB that the problem
is solved most customers don’t do that. Anyway I get many letters, even now received
a letter from a person who has it all wrong and that person speaks badly of everything
but ending up saying that the FB has not solved, but at least he had a place where
people heard him.

So FB does not solve everything but I believe it is the main instrument we have
today for customer service, to learn what we have to learn in solving customer
problems and to change the internal culture. People know that I’m reading, and with
In 1999, TAP was not different from other airlines, when customers weren’t mentioned anywhere in TAP vision and mission. Times were different, not just the airlines. By that time, the consumer had the power he had. I mean, after many years of economic growth around the world, during which manufacturers sold everything manufactured, focus wasn’t on the client. In the case of the airline we have a more complex case, since flying is extremely complex, because the plane is complex; it depends on something technical, operational and meteorological very large. Then the whole airline was built over a technical expertise and a preoccupation with technical and operational details. Even the airlines have had to create all the infrastructures which were after dismembered. First the airline was born, and after the rest was born; from the navigation controls, the caterings, infrastructure, software systems GDS (global distribution services), Amadeus, Galileo all those systems that are available to travel agencies all were invented by the airline. There was a time when the travel agencies had a terminal of each airline. When they emerge and develop over time, they did it based on two categories that have always been very strong in the airlines, the pilot and the engineer, because these were two categories that put the airplane in the air.

When I started working in airline maintenance, I was an engineer and by that time there were no flights between Brazil and Europe that was not on an airplane with four engines because they needed four engines and still not considered safe. Then we start working with DC-10 generation and with 3 engines; today we cross the Atlantic with two engines. I remember the 707 that I had worked and that he would lift with 4 engines but rarely landed with 4, because on the way one of them crashes. And that’s why we needed 4. Today planes have 2 and although they can land with one if necessary, they don’t crash and are always on. Airlines have evolved and this evolution occurs in all aspects, I mean today we landed in the dark. No need to see, today a plane lift at night and land at night and often landed at night with a so strong fog that the plane cannot do the TAXI; the plane lands and stop waiting for a car to come get

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44 Taxiing is the movement of an aircraft on the ground, under its own power, in contrast to towing or push-back where the aircraft is moved by a tug. The aircraft usually moves on wheels, but the term also includes aircraft with skis or floats (for water-based travel). An airplane uses taxiways to taxi from one place on an airport to another; for example, when moving from a terminal to the runway. The
it because the pilot does not see enough to taxi the plane on the runway. So there is technology and today all is automatic.

So that whole culture has created a corporate culture whose main goal was to protect the passenger. This culture was based on that time (1999) where the client had not the power it has today. And suddenly we had to make a change of culture which is complicated. I ask for flexibility but I can only ask for half the company's flexibility, I can only ask for flexibility in customer service, I cannot ask for flexibility to pilot and engineer. And then the company becomes more complex, more sophisticated.

This process of change is a relatively recent thing. When you create a company with this premise is much easier than to get a company with a history and a heavy story and change it. But this company has been providing answer and I admired so much that you put the FB question the way you put it, because Portuguese people did not realize, but we are benchmarking Europe, TAP has already been to Germany to give lectures on the FB, and we teach in entire Europe.

But we're still learning. We had serious problems with the FB. FB crashes a lot, the volume of questions and answers were so high that the computer read them as SPAM, we received so much mail that they identified as SPAM and overthrow our account and put in 48 hours of punishment. We had big difficulties. The change itself to the timeline took some priority because messages are half hidden, they are subordinate. I did not want that, then we have our limitations, however even if the FB is replaced in future with other things, this is still a learning process that arises and we will absorb the new instruments but they are less important than culture we have now. The power is in the client and we must have an online and real time contact with the customer. It is this that is the idea behind and that is why we joined it in the contact center and had a great synergy between sales on the Internet that has a dynamic, FB, and telephone service because the customer is the same using these three things.

The customer goes to the internet but he still feels insecure, he thinks that no one is on the other side, he often cannot interpret what is there and what might seems obvious to people who read every day is not obvious to the one who comes first time and he needs someone.

term "taxiing" is not used for the accelerating run along a runway prior to takeoff, or the decelerating run immediately after landing (Wikipedia, 2012a)
We have greatly increased the sales in internet because of FB. Today we are growing, in this year sales have grown by 47% compared to the last year which in this economic context is very important. And we are selling hundreds of millions. We’re growing a lot and have to do with the FB.

Another thing is that I thought that Internet would replace the CC and that people who bought before on the CC would now buy on the Internet; but the CC continues to grow. This dynamic of one helping the other is important. And people who buy their flights in travel agencies, still ask for TAP and even they continue buying in travel agencies we will still answer them, but with some limitations; for instance we cannot do anything when they ask to change a date and we have must say to customers to contact travel agency. We cannot change a reservation made by a travel agency. It's unethical.

FB allowed changing the company's image. In Portugal, it is more complicated, because we have some dynamics that hinder the brand. We have dynamics of strikes, we have the dynamics of politics, and we have a series of dynamics that blend with the whole brand. But now we are perceived in a completely different way in Italy, Germany, Angola, and Brazil. We have quarterly studies by nationality and the nationality that gives the lowest score for TAP is the Portuguese one. Brazilians give the best one.

Saints of the house do not make miracles, but I think what is very positive for us is that the Portuguese have a love-hate relationship with us. Speak evil, complain and are very difficult customers but they are extremely loyal.
APPENDIX 3 – TAP CODE OF ETHICS

Point IV – WORKERS’ INTERNET ACTIVITY

The Internet plays a relevant role in the relationship with our Customers. In order to promote its growth, it is fundamental that we all contribute toward the correct use of this mean. TAP Portugal is present in this channel, namely through its activity on the social networks, such as Facebook, Twitter and YouTube.

If you use these or other Internet platforms, consider the following basic principles:

1. For an official reply to questions put about TAP, there is a team dedicated and trained for the purpose. If you want to intervene or complement information on this matter contact onlinetap@tap.pt

2. If you intervene directly and personally:
   a) Make your interventions constructive, respectful, transparent and ethical;
   b) Refrain from interventions susceptible to affect the good name of the TAP Group or that of its collaborators, as well as the entrepreneurial prestige of each company that comprise the TAP Group, namely through the publication of photos, videos or comments out of context.
   c) Refrain from interventions that refer to data or confidential or private elements of the TAP Group, to which you have access in the scope of your functional activity;
   d) Do not use spam;
   e) Your interventions on the internet do not bind nor make the TAP Group directly liable and can, whenever offensive to the Group or to its workers, constitute a practice susceptible of disciplinary action according to the contractual and legal terms.

3. In addition to the principles established in this chapter, the workers are to respect in that activity the other principles established in the present Code of Ethics and other regulations and legislation applicable.

Chapter IV - Approved in the meeting of the Executive Board of TAP – Transportes Aéreos Portugueses, SGPS, S.A., of February 18, 2011 (minutes n°. 121, decision n°. 121.03).

The Executive Board:
President (Fernando Pinto)
Directors: (Michael Conolly)
(Manoel Torres)
(Luiz Mór)
(Jorge Sobral)
(Luís Rodrigues)
# TAP POST MAIL COMMUNICATION PROCESS

## TAP Communication Process – Post Mail

<table>
<thead>
<tr>
<th>Client</th>
<th>Mail Office</th>
<th>TAP Mail &amp; Expedition Service</th>
<th>TAP Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write letter</td>
<td>Receive letter</td>
<td>Receive letter</td>
<td>Receive letter</td>
</tr>
<tr>
<td>Send letter</td>
<td>Deliver letter</td>
<td>Analyse the content</td>
<td>Send to Service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Send to Service</td>
<td>Receive and analyze</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Send to Post Office</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Return letter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Can answer?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Write answer and send</td>
</tr>
</tbody>
</table>
# TAP CONTACT CENTER COMMUNICATION PROCESS

## TAP Communication Process — Contact Center

<table>
<thead>
<tr>
<th>Client</th>
<th>TAP CC</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call</td>
<td>Answer Call</td>
<td>ACD Decision System (see submode)</td>
</tr>
<tr>
<td></td>
<td>listen to customer problem</td>
<td>Is able to solve Problem?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Who can solve Problem?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Give number of Service that can solve problem</td>
</tr>
</tbody>
</table>

- **ACD Decision System**: The ACD Decision System is a key component in the contact center communication process. It typically involves a set of algorithms or rules that determine which agent or department should handle a call based on various factors such as call type, time of day, and agent availability.

- **Answer Call**: After the call is initiated, the TAP CC (TAP Contact Center) must answer the call promptly and professionally.

- **Listen to Customer Problem**: The TAP CC must listen attentively to the customer's issue to understand the problem clearly.

- **Determine Problem Solvability**: The TAP CC assesses whether the issue can be resolved by them or if it requires the expertise of another department.

- **Assign Problem**: If the TAP CC is not able to solve the problem, they will assign it to the appropriate department or agent within the contact center.

- **Issue Resolution**: Once the problem is assigned, the process continues with the assigned team to resolve the issue.
TAP ACD DECISION SYSTEM

1. **Duration - 40’’**
   - Benvindo à TAP se pretende falar em Português prima 1
   - Welcome to TAP if you want to speak in English dial 1
   - Bienvenue à la TAP, si vous voulez parler en français, composez le 3
   - Bienvenido a TAP si desea hablar en español, marque 4
   - Willkommen auf TAP, wenn Sie Deutsch sprechen, wählen Sie 5
   - Welcome to TAP se vuoi parlare in italiano, digitare 6

2. **Duration - 30’’**
   - If you want to talk with:
     - Tele check-in, dial 1
     - Reservation center, dial 2
     - Victoria program, dial 3
     - Baggage information or FALE CONVESCO, dial 4
     - An operator, dial 5

3. **Duration - 20’’**
   - Your call will be answered shortly, Please wait.
TAP FACEBOOK COMMUNICATION PROCESS

TAP Communication Process — Facebook

<table>
<thead>
<tr>
<th>Phase</th>
<th>Client</th>
<th>TAP CC</th>
<th>TAP Department</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Open Facebook.com</td>
<td>Find TAP FB Page</td>
<td>Write a Post</td>
</tr>
<tr>
<td></td>
<td>Write answer</td>
<td>Read Post</td>
<td>Be able to solve Problem?</td>
</tr>
<tr>
<td></td>
<td>Write answer</td>
<td>Fir person to department</td>
<td>Champion asking for answer</td>
</tr>
<tr>
<td></td>
<td>Glue answer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>