

Research Paper

Employees' Perceptions of Internal Communication Processes and Communication Satisfaction in a Northern Portuguese Higher Education Institution

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ABSTRACT

This study explores employees' perceptions about general organizational factors, internal communication (IC) processes and communication satisfaction (CS) dimensions, namely satisfaction with organizational integration (SOI), satisfaction with corporate information (SCI) and satisfaction with personal feedback (SPF). The main goal is to examine the aspects that influence the CS dimensions (such as general organizational factors and IC processes - overall IC evaluation, IC limitations, and effectiveness of IC channels), and to analyse the relationship between CS dimensions and some organizational outcomes (overall job satisfaction and institutional bond). A quantitative methodology was adopted, and data collection was done through a personally applied questionnaire to the employees of five functional units of a higher education institution, in northern Portugal. We have obtained 81 valid questionnaires. The statistical and analytical tools used included both descriptive and inferential analysis. One general organizational factor (relationship between organizational members/services/supervisor) was considered to be a determinant of the three CS dimensions (SOI, SCI and SPF). With regard to IC processes, the results show that the overall evaluation of IC and the effectiveness of IC channels have a positive impact on SOI, but the effect of IC limitations in this dimension is negative. Only the effectiveness of IC channels has a significant positive effect on SCI. The SPF is positively influenced by the effectiveness of IC channels and by the overall evaluation of IC. Furthermore, the findings suggest that as SOI and SPF increases, so does job satisfaction. SCI is not significantly correlated with overall job satisfaction. Positive correlations were found between the three dimensions of the CS and the institutional bond variable. Finally, it was observed that job satisfaction is positively correlated with institutional bond. This paper offers original findings and to the best of our knowledge this research is one of the few studies addressing the employee's perceptions of general organizational factors and IC processes in explaining CS dimensions in the higher educational sector. Also, this study highlights the importance of CS dimensions in developing positive working attitudes, particularly job satisfaction and institutional bond.

Keywords: internal communication; communication satisfaction; job satisfaction; employees' perceptions; higher education institution.

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1. INTRODUCTION

The Portuguese higher education has undergone substantial changes during the last two decades (Duarte, Alves & Raposo, 2010). The competitive market structure of the higher education sector, in Portugal, is currently more demanding for all institutions both in terms of the decreasing number of potential candidates and in terms of the scarcity of funding. In this context, some of the existing institutions face a serious problem of financial survival (Mainardes, Alves, Raposo & Domingues, 2012).

Therefore, the value, effectiveness and benefits of applying marketing theories and concepts has been increasingly recognized in several universities (Hemsley-Brown & Oplatka 2006; Mainardes et al., 2012; De Sabanto, Forcada, & Zorrilla, 2017). Building on marketing, it is possible to plan several initiatives to effectively establish the relationship between Higher Education Institutions (HEI) and its various stakeholders. It is in this context that creating and developing effective organizational communication strategies becomes a challenge.

Communication in the context of HEI, represents a highly important process since in this type of organization, internal and external relationships are determined by how communication occurs (Avram, 2015). Increasing competition between universities forces this type of institution to devote more and more attention to internal and external communication. Externally, communication maintains and enhances organizational image (Duarte et al., 2010), and internally, it plays an important role in cooperation with management through the sharing of information, in the identification of strategies and in the decision-making process.

The importance of internal communication (IC) has been recognised by organizational and communication scholars (Zerfass, Tench, Verhoeven, Vercic & Moreno, 2010). Hargie and Tourish (2009) contend that IC is “increasingly recognized as a crucial variable in determining organizational success, and as a vital issue requiring further research” (2009: 419). Despite its accepted importance, IC is not yet fully acknowledged as a relevant field of academic research (Verčič, Verčič & Srirameshc, 2012).

Internal Communication (IC) is an essential management activity in every organization, as it influences the capacity of strategic managers to motivate employees and accomplish results (Welch & Jackson, 2007). A supportive IC environment is necessary to create an atmosphere centered on the employees in order to make them feel motivated, valued and empowered. As in other organizations, effective IC plays a vital role in universities. Taking into account the centrality and importance of human capital to the core mission of HEI, the concept of effective IC is particularly applicable to the context of university education, because these institutions are fundamentally grounded on the skills and capabilities of those who work at them (Delport, Hay-Swemmer & Wilkinson, 2014). However, it is still underdeveloped in most universities due to their complex and bureaucratic nature (Gizir & Simsek, 2005; Anyangwe, 2012).

Communication satisfaction (CS) has received considerable attention in the past decades (Ogunjinmi, 2013). The satisfaction with communication is not a matter of just being satisfied or dissatisfied, in general terms, since employees may experience variable degrees of satisfaction concerning the different aspects of communication (Clampitt & Downs, 1993).

Organizational communication researchers have shown increasing interest in the association between CS and several variables. For example, job satisfaction (Pincus, 1986; Varona, 1988; Clampitt & Girard, 1993; Bakanauskienė, Bendaravičienė & Krikštolaitis, 2010; Tuzun, 2013), organizational identification (Smidts, Pruyn, & van Riel, 2001; Tuzun, 2013); organizational commitment (Clampitt & Downs, 1993; Varona, 1996), job performance (Pincus, 1986), productivity (Clampitt & Downs, 1993; Clampitt & Girardi, 1993).

Goris (2007) acknowledged the complexity of managing communication processes and promoting CS. He asserted that despite the recognition of the relevance of CS on important organizational constructs (such as job satisfaction), the “identification of strategies and tactics for promoting and accomplishing satisfaction with communication in organizations may be an elusive venture” (Goris, 2007: 746). The author argues that future research initiatives should “identify the circumstances in which specific communication dimensions and organizational constructs may promote or inhibit communication satisfaction” (Goris, 2007: 748).

The purpose of this quantitative research study is to advance research and knowledge in

educational sector by exploring employee's perceptions of IC processes and CS in a single HEI (a Northern Portuguese HEI). Accordingly, four specific objectives were targeted, which are as follows: 1) To identify the perceptions of employees on relevant aspects related to general organizational factors (institutional bond, job satisfaction and relationships between organizational members/services/supervisor), IC processes (for example, overall evaluation of IC, IC limitations, effectiveness of IC channels) and CS; 2) To correlate the concepts under examination with certain profile variables; 3) To identify and to analyse determinants of CS dimensions (organizational integration, corporate information, personal feedback); and 4) To analyse the relationship between CS dimensions and some organizational outcomes (overall job satisfaction and institutional bond).

Research about IC and CS within the higher education sector is very diverse. As far as we observed by the literature review most studies on the IC and CS research stream focus in sectors other than higher education. Relatively few studies have examined CS in this type of institutions (Sharma, 2015: 43), where the employees "play a key role in impacting the well-being, success, and smooth functioning of their institutions". However, to the best of our knowledge CS research within Portuguese HEI is still limited.

Also, the review of the CS research stream in this context shows that there is a lack of research on the potential determinants of CS, such as general organizational factors and IC processes. Except for the study developed by Carrière and Bourque (2009), until now few studies have analysed the antecedents of CS, and we were not able to find studies on this matter in the Portuguese higher education context.

Besides that, a review of the literature reveals that there is a lack of research on CS and its relationship with other organizational variables in Portuguese HEI. Most of the studies examined the relationship between CS and job satisfaction, thus the present exploratory study also aims to examine the association with another organizational outcome, the institutional bond variable.

Thus, this study is significant as it contributes towards the understanding of some relatively new constructs in the HEI workforce, which may aid in understanding some employees' attitudes and behaviours.

This paper is divided into five sections. After the introduction, the second section briefly reviews the literature on this research. The methodology used for empirical

purposes is described in the third section. The fourth section presents the empirical findings and the final section provides the conclusions of this research.

2. THEORETICAL BACKGROUND

2.1 Internal communication

Nowadays, organizations have accepted internal marketing both as a philosophy and as a marketing-tool as an indispensable paradigm. By focusing its efforts on the organization's employees, internal marketing seeks to improve service performance (Qayum & Sahaf, 2013). Effectively, all organizations that pursue business excellence and institutions that have implemented or seek the implementation of a holistic marketing vision, understand the concept of internal marketing as having expanded outside the boundaries of mere marketing services (Cătălin, Andreea & Adina, 2014). In this respect, it is important that HEI as other service organizations, adopt internal marketing practices so as to reap its benefits, one of the most important being that of satisfying the employees of the organization (Qayum & Sahaf, 2013).

In the context of internal marketing, several authors have discussed the importance of communication (Rafiq & Ahmed, 1993; Papasolomou-Doukakis, 2002). IC represents a key element of internal marketing (Papasolomou-Doukakis, 2002), and it is seen as one of its most important components (George & Grönroos, 1991).

IC is perceived by employees as “the exchange of information among employees or members of an organization to create understanding” (Verčič et al., 2012:225) which leads us to believe that the greater or lesser efficiency of IC will have consequences on the better or worse perception of all current information within the organization. As such, one can extrapolate to the degree of efficiency with which employees will carry out their tasks and can infer the degree of satisfaction with the outcome of their work.

Marketing-based IC is a management process by which an organization interacts with its internal public, involving the creation of channels to send, receive, interpret and act on certain messages, to achieve common organizational goals (Papasolomou-Doukakis, 2002). IC provides information and makes managers and employees aware of organizational values and goals. Thus, regardless of hierarchical levels, through internal marketing, IC has to ensure the existence of efficient and effective feedback mechanisms among all concerned members of the organization (Cătălin et al., 2014). IC must also be a strong promoter of organizational culture and leadership (Cătălin et al.,

2014). IC can and should be considered a powerful tool in aligning the individual and organizational goals, which is necessary to create a well-built organizational culture (Verčič et al., 2012).

If external communication has the purpose of “building a distinctive favourable image” of the organization in order to attract more funding, more clients, better suppliers, an effective IC will represent a competitive advantage of a more permanent character (Duarte et al., 2010), since its objective is to strengthen the inner relations of employees. As such, IC leads to a positive relationship regarding organizational effectiveness, reducing absenteeism, increasing the disposition for creation and contributing to a better working environment (Verčič et al., 2012). IC when properly implemented and managed and when integrated with the organization’s marketing activities brings high levels of personnel satisfaction and commitment.

2.2 Communication satisfaction

Communication in business has, since long, been a much-worked subject of study with approaches from several areas in addition to Management, such as Neurology or Psychiatry. Those studies focus on how communication affects labour relations, between colleagues, between labour hierarchies and between employees and the outside world as a result of the image their institution has in the community (Bakanauskienė et al., 2010).

Downs and Hazen (1977) have developed the construct of CS that has become an effective research stream in organizational communication (Jaupi & Lłaci, 2015).

CS includes several aspects and may differ from individual to individual. According to Clampitt and Downs (1987) employees show themselves satisfied with most part of those aspects. However, there are some specific subjects in which opinions differ. This may be justified by the fact that the construct of CS is multi-dimensional having in the Communication Satisfaction Questionnaire (CSQ) by Downs and Hazen (1977) an effective instrument for that analysis.

Pincus (1986) considers the CSQ the most comprehensive instrument to gauge the diverse IC processes, such as, the direction of information flows, the formal and informal channels of communication flow, relationships with various members of the organisation and the forms of communication. The author asserts that this multidimensional construct has been defined as a summary of an individual’s satisfaction with information flow and relationship variables. According to Carrière and

Bourque (2009) CS is an employee's affective evaluation of the organization's communication practices and is a multidimensional construct.

According to Downs and Hazen (1977) and Gray and Laidlaw (2002), the dimensions identified in the CSQ are as follows: 1) Horizontal communication: "The extent to which informal communication is accurate and free flowing, and includes perceptions of the grapevine"; 2) Subordinate communication: "Upward and downward communication with subordinates"; 3) Media quality: "The extent to which meetings are well organized and written directives are short and clear"; 4) Organisational perspective: "Information about the organisation as a whole, which includes notifications about changes, overall policies, and goals of the organisation"; 5) Organisational integration: "The degree to which individuals receive information about their immediate work environment"; 6) Communication climate: "The extent to which communication in an organisation motivates and stimulates workers to meet organisational goals"; 7) Personal feedback: "Information concerning how workers are being judged and how their performance is being appraised"; and 8) Supervisory communication: "The upward and downward aspects of communicating with superiors".

2.2.1 Determinants and consequences of communication satisfaction

IC and CS are important issues to be studied in current higher education workforce, in order to understand employees' attitude and behaviour. Within the domain of IC many relationships have been examined, but employee perceptions of IC and work attitudes are some of the more interesting (Carrière & Bourque, 2009). In the present study, we are interested in the importance of general organizational factors and effective IC processes in providing CS among employees in a HEI setting. Also, we attempt to analyse the relationships between CS dimensions and two organizational outcomes.

Being CS a socioemotional outcome resulting from communication interactions (Hecht, 1978), managers need to develop a clear understanding of which communications practices/activities/processes are most valued by employees (Carrière & Bourque, 2009). Sharma (2015) reinforces this view by arguing that it is important to understand the potential factors influencing CS.

Carrière and Bourque (2009) conducted a study to investigate the relationship between internal communication practices, CS, job satisfaction and organizational commitment. They tested the hypothesis that CS acts as a mediator between an organization's internal

communication systems and the two important job outcomes. The authors argue that there is a well-established link between internal communication practices and employee CS and that the relationship between the two is one of antecedent (communication practices) and consequent (CS). The authors conceptualize internal communication practices as consisting of the set of communication activities, both formal and informal, carried out by their members with the aim of disseminating information to one or more audiences within the organization.

Clampitt and Girardi (1993) found that satisfaction with communication is highly contingent on variables that cannot be measured and quantified easily. The authors state that the degree of satisfaction with the communication can be altered through changes in the practices of the organizations or through the training of the collaborators. The authors suggest that future research attempts to analyse which communication practices most contribute to increase satisfaction with communication.

Communication is a crucial element of an organization's success and effectiveness and HEI need to recognize IC and CS as strategic variables. In the literature, CS shows a relationship with diverse employee's attitudes and behaviours.

Several studies report that different organizations have different correlations between CS and job satisfaction and also that educational abilities may origin correlations between the dimensions with different weights (Avery 1977; Gordon, 1979 *in* Clampitt & Downs, 1987). These two concepts represent an important part of literature in the last years, and seem to always be in constant change. In spite of the dynamics of the concept, all the studied authors are in consonance when it comes to the effectiveness of communication in organizations and their success, and more importantly, between their success and employee's satisfaction. Therefore, the literature review reflects an obvious relation between CS and job satisfaction (Goris, 2007; Bakanauskienė et al., 2010; Tuzun, 2013; Abdullah & Hui, 2014; Sharma, 2015). Employees with higher CS levels tend to be more satisfied with their work (Goris, 2007).

The relationship between CS and job satisfaction is one of the most studied in academic literature (Carrière & Bourque, 2009). However, besides job satisfaction the impact of CS on other organizational variables, has also been the subject of study by the researches in this area. Examples of other researched variables are organizational commitment (Varona, 1996; Carrière & Bourque, 2009), job performance (Pincus, 1986; Goris, 2007), and productivity (Clampitt & Downs, 1993; Clampitt & Girardi, 1993).

Another research interest of other investigations is the effects of communication strategies on individuals' attitudes towards the organization (Nakra, 2006). Smidts et al. (2001) argues that organizational identification (feelings of pride of belonging to the organization or feeling acknowledged in the organization), is important in the creation of a positive image of the own organization. Mael and Asforth (1992:105) considers that organizational identification occurs when "individual defines himself or herself in terms of their membership in a particular organization" and is a form of attachment to an organization. Tuzun's (2013) study the organizational identification act as a mediator in the relationship between CS and job satisfaction. Also, Nakra (2006) study suggest that since CS has been shown to be positively and significantly related to organizational identification, organizations should be interested in taking concrete steps to improve the level of CS of their employees.

3 RESEARCH METHODOLOGY

3.1 Framework of analysis and research questions

The framework of analysis of this study proposes that CS dimensions will be influenced by general organizational factors and IC processes, and that CS dimensions are associate with some organizational outcomes as depicted in Figure 1.

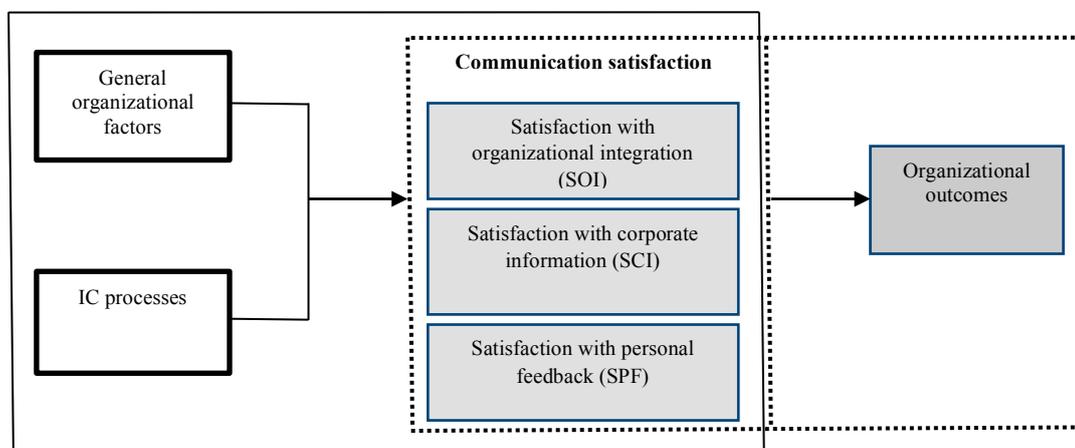


Figure 1: Conceptual representation of the proposed "antecedents of CS dimensions" and "consequences of CS dimensions"

Source: Own elaboration

The purpose is to explore possible antecedents and consequences of CS in a Portuguese HEI. In a first step, we examined the direct influences of general organizational factors and IC processes on CS dimensions and, in a second step, we explored the association between CS dimensions and some organizational outcomes. More specifically we sought answers to the following questions: 1) To what extent are general organizational

factors related to CS dimensions? 2) To what extent are IC processes related to CS dimensions? 3) To what extent are CS dimensions associated with organizational outcomes?

In this study, general organizational factors include some organizational elements that are not specifically linked to IC, and encompass the connection an employee has with the organization as a whole (perceptions of institutional bond), with its members (perceptions of effective relationships between organizational members) and with their work (positive or negative feelings that workers have towards their work- job satisfaction). As job satisfaction has been analysed as a dependent variable in the vast majority of CS studies, also in the present study this variable was considered an organizational outcome. Similarly, in the case of institutional bond variable, although it can be considered as an organizational outcome, there is no empirical evidence about its role as a predictive variable of the CS.

Like the study developed by Carrière and Bourque (2009), IC processes include the set of communication activities performed by (all) members of an organization. The authors argue that managers have a responsibility to ensure that there is an efficient and effective IC system in place to ensure that all employees are provided with timely and important information. In this study, the IC processes cover the barriers to IC, the channels used (and their degree of effectiveness) and an overall assessment of the IC state in the organization.

Organizational outcomes in this study encompass job satisfaction and institutional bond. Job satisfaction can be defined as (Locke, 1976: 1300) “a pleasurable, positive emotional state, resulting from the appraisal of one’s job experience” and in this study comprises an overall evaluation of that experience.

Regarding the institutional bond variable, in the present study, the term bond is used interchangeably with “identification”, “attachment”, or “connection”. It is a personal connection with the organization/institution, and an enduring affective bond to the organization for which employees work for. It encompasses the understanding and commitment of the institution's mission and objectives, the understanding of the contribution of the employee's work in the accomplishment of the institution's objectives, the feeling of the importance that the employees play in the institution and the feeling of pride towards the institution.

3.2 Research method and sample

Taking into account the purpose of the study, it was decided to follow a case study methodology in a northern Portuguese HEI. This study was part of a broader analysis regarding the preparation of a communication plan for this HEI and thus was supported by the university's Rectory members.

A quantitative research design is particularly appropriate to look into objectives that explore the employees' perceptions on IC processes and CS. This study focuses on the employees' perceptions of five functional units of this educational institution. However, before we did the quantitative part, we conducted in-depth interviews with service managers. A meeting was organized with the five services' directors. The importance, rationale and methodology of the study were outlined and explained, and a formal authorization to run this research was requested and approved. The service directors formally transmitted the consent to all employees. In addition, they were shown the questionnaire to be applied to their employees, and they made comments and suggestions on changes in some variables and items.

This paper analyses data gathered through a quantitative survey. The target population involved belong to the technical and administrative permanent offices that support the functioning of the University and all its organizational structure: academic services (25 employees), financial and property services (31 employees), human resources services (15 employees), documentation and libraries services (33 employees), and information and communication services (19 employees). The study's population consisted of individuals employed in these five functional units (123). Employees working in these five functional units represent approximately 28% (António, Rodrigues, Gonçalves, Marques & Diniz, 2013) of all the institution non-teaching staff members.

3.3 Research instrument

The instrument for data collection was a personal questionnaire. The questionnaire was distributed and collected by undergraduate students at the employee's workplaces. The 123 questionnaires were distributed from which 81 were retained and used for subsequent data analysis, yielding a response rate of 66%.

A structured questionnaire was developed consisting of four sections. The first section examines some general organizational factors and comprises three questions: institutional bond, relationship between organizational members/services/supervisor and

overall job satisfaction. The questions in this section incorporate the suggestions of the five service directors.

The second section addresses the IC processes and contains three questions: overall evaluation of IC, perceptions of IC limitations and effectiveness of IC channels. The questions in this section were chosen after researching various communication audit questionnaires present in the literature, and in particular used in a similar study undertaken by another Portuguese university (UFP. ProjEst-Q, 2008).

The third section assesses CS. However, due to concerns related to the length of the questionnaire, we have only analysed three dimensions of the CS scale (Downs & Hazen 1977): organizational integration, corporate information and personal feedback.

The last section focuses on employee's background, and includes six items to obtain information on demographic and professional characteristics of the respondents. A 5-point Likert-type scale was used in all variables: 1= Strongly disagree to 5= Strongly agree (institutional bond, relationship between organizational members/services/supervisor, communication limitations); 1=Very bad to 5= Very good (overall evaluation of IC and effectiveness of IC channels) and 1= Strongly unsatisfied to 5= Strongly satisfied (overall job satisfaction and CS). In Table 1 there is a synthesis of the main variables present in the questionnaire.

Variables present in the questionnaire		Number of items (with one example)	Scale used
GOF	Institutional bond	6 items: "I understand the organisation's mission, vision and objectives"	Hume (2010); Carvalho (2012); Interviews with service directors
	Relationship between organizational members/services/supervisor	3 items: "There is a good relationship with the leader of my service / office / department / school"	Interviews with service directors
	Overall job satisfaction	1 item: "Indicate the degree of dissatisfaction/satisfaction with your work"	Interviews with service directors
ICP	Overall IC evaluation	1 item: "Overall, how would you evaluate the existing IC within the HEI?"	Various communication audit questionnaires present in the literature: UFP. ProjEst-Q (2008); Pina (2008); Hume (2010)
	IC limitations	8 items: "The information is insufficient and incomplete"	
	Effectiveness of IC channels	14 items: "Rate the effectiveness of the internal media listed below: Newsletter"	
CS	Organizational integration	5 items: "Information about the requirements of my job"	Downs and Hazen (1977)
	Corporate information	5 items: "Information about institution policies and goals"	
	Personal feedback	4 items: "Reports on how problems in my job are being handled"	

OGF: General organizational factors; CP: Internal communication processes; CS: Communication satisfaction.

Table 1. Synthesis of the main variables present in the questionnaire

Source: Own elaboration

3.4 Data analysis

The statistical analysis was performed with SPSS - version 22 for Windows. The statistical and analytical tools which were employed have include both descriptive and inferential analysis. The stability and consistency of measured items of the scales was evaluated by reliability analysis. For each scale, we have evaluated the correlations between the items, the corrected item-total correlation, the Cronbach Alpha and whether the elimination of an item would improve the Cronbach Alpha of the scale. To compare independent groups we have used the Student T Test, and for the association between continuous/ordinal variables the Pearson/Spearman Correlation Coefficients was used. To study the factors that affect the CS we have used regression linear models. The linearity and the assumptions of the normality and homoscedasticity of the residuals were assessed graphically.

4 RESULTS AND DISCUSSION

4.1 Respondents profile

Demographic and professional characteristics of respondents are presented in Table 2.

Variable	Characteristics
Gender (N=67)	Female: n = 32 (47.8%) Male: n = 35 (52.2%)
Professional category (N = 56)	Operational assistant: n = 8 (14.3%) Technician assistant: n = 31 (55.4%) Computers technician: n = 11 (19.6%) Superior technician: n = 6 (10.7%)
Service/functional units (N = 81)	Documentation and libraries services: n = 16 (19.8%) Academic services: n = 25 (30.9%) Information and communication services: n = 11 (13.6%) Financial and property services: n = 15 (18.5%) Human resources services: n = 14 (17.3%)
Length of time in employment in the HEI (N = 60)	< 1 year: n = 2 (3.3%) 4-6 years: n = 1 (1.7%) 7-9 years: n = 1 (1.7%) ≥ 10 years: n = 56 (93.3%)
Length of time in employment in the current position (N = 68)	< 1 year: n = 11 (16.2%) 1-3 years: n = 7 (10.3%) 4-6 years: n = 9 (13.2%) 7-9 years: n = 4 (5.9%) ≥ 10 years: n = 37 (54.4%)

Table 2 Sample characteristics
Source: Own elaboration

The sample included 81 professionals with ages between 24 and 63 years old ($M = 45.5$; $SD = 8.6$), mostly males (52.2%), who work at the university for more than 10 years (93.3%). The respondents work in five different services/functional units: academic services (30.9%), documentation and libraries services (19.8%), financial and property services (18.5%), human resources services (17.3%) and information and communication services (13.6%). Regarding the different professional categories, 14.3% are operational assistants, 55.4% are technician assistants, 19.6% are computers technicians and 10.7% are superior technicians. Most of them have held the same position for more than 10 years (54.4%).

4.2 Descriptive statistics and correlations between the variables and respondents demographic and professional profile

Table 3 shows the descriptive statistics and the variables reliability analysis.

Constructs and Items	Mean (SD)	Corrected item-total correlation	Alpha/Alpha if item deleted
Institutional bond ¹	4.49 (0.68)		0.886
I understand the vision, mission and objectives of the HEI.	4.25 (0.92)	0.694	0.506
I understand how my work contributes to the achievement of the objectives of this HEI.	4.62 (0.77)	0.816	0.704
I feel I am an important part of this institution.	4.40 (0.89)	0.726	0.621
I am committed with the mission of this institution.	4.63 (0.80)	0.765	0.589
I feel proud to work in this HEI.	4.57 (0.74)	0.624	0.401
Relationship between organisational members/services/supervisor ¹	4.24 (0.79)		0.850
There is a good relationship between members of the service / office / department / school to which I belong.	4.25 (0.87)	0.715	0.794
There is good coordination between the service / office / department / school to which I belong and the remaining services / offices / departments / schools.	3.96 (0.95)	0.725	0.786
There is a good relationship with the leader of my service / office / department / school	4.51 (0.88)	0.719	0.790
IC limitations ¹	3.09 (0.89)		0.907
Information arrives too late.	3.14 (1.12)	0.733	0.891
Information is insufficient and incomplete.	2.98 (1.14)	0.743	0.890
Information does not match my needs.	2.90 (1.07)	0.728	0.892
There is too much written information.	3.07 (1.19)	0.648	0.899
Written information is not always well understood.	3.19 (1.14)	0.668	0.897
Information is not objective.	3.06 (1.14)	0.770	0.887
The degree of information sharing among the various bodies (departments, offices, departments, schools) is reduced.	3.23 (1.16)	0.736	0.890
Typically, information tends to be retained at the higher hierarchical levels.	3.19 (1.17)	0.577	0.905
Effectiveness of internal communication channels ²	3.63 (0.56)		0.906
Landline.	3.83 (0.83)	0.338	0.907
E-mail.	4.17 (0.74)	0.411	0.904
Institutional site (website).	3.84 (0.91)	0.643	0.895
Newsletter.	3.59 (0.74)	0.684	0.894
Schedule.	3.65 (0.74)	0.686	0.894
Weekly Clipping.	3.56 (0.76)	0.715	0.893
Informative charts.	3.41 (0.83)	0.747	0.891
Information system in support of teaching.	3.65 (0.76)	0.573	0.898
Internal mail.	3.72 (0.96)	0.586	0.898
Intranet.	3.96 (0.71)	0.572	0.898
Meetings.	3.46 (0.99)	0.509	0.902
Directional signage.	3.22 (0.99)	0.668	0.894
Institutional page on social networks.	3.42 (0.80)	0.646	0.895
Activity reports	3.36 (0.83)	0.706	0.893

Internal communication satisfaction			
Satisfaction with Organizational Integration ³	3.27 (0.73)		0.845
Information about my progress in my job.	3.36 (1.00)	0.702	0.797
Information about my work colleagues.	3.38 (0.96)	0.688	0.801
Information about policies and objectives of the service/department/office/ school / to which I belong.	3.33 (0.92)	0.691	0.801
Information about the requirements of my job.	3.42 (0.83)	0.673	0.808
Information about employee benefits and pay.	2.84 (0.94)	0.509	0.849
Satisfaction with Corporate Information ³	3.20 (0.75)		0.869
Information about institution policies and goals.	3.40 (0.89)	0.600	0.863
Information about external factors affecting the institution.	3.25 (0.81)	0.647	0.853
Information about changes in the institution.	3.04 (0.97)	0.734	0.831
Information about the institution profits and/or financial standing	3.01 (1.04)	0.742	0.830
Information about achievements and/or failures of the institution.	3.30 (0.91)	0.757	0.826
Satisfaction with Personal Feedback ³	3.14 (0.87)		0.876
Information about how my job compares with others.	3.19 (0.85)	0.684	0.861
Information about how I am being judged.	3.05 (1.07)	0.837	0.795
Information about the recognition of my efforts.	3.06 (1.24)	0.837	0.801
Reports on how problems in my job are being handled.	3.26 (0.89)	0.619	0.881
Overall job satisfaction (1 item) ³ : Indicate the degree of dissatisfaction / satisfaction with your work	4.14 (0.77)	-	-
Overall evaluation of internal communication (1 item) ² : Overall, how would you evaluate the existing internal communication within the HEI	3.44 (0.85)	-	-

¹ Measured on a 5-point Likert type scale from 1 (Strongly disagree) to 5 (Strongly agree); ² Measured on a 5-point Likert type scale from 1 (Very bad) to 5 (Very good); ³ Measured on a 5-point Likert type scale from 1 (Strongly unsatisfied) to 5 (Strongly satisfied).

Table 3 Descriptive statistics and reliability analysis of the scales (N = 81)

Source: Own elaboration

After removing the items that had low corrected item-total correlation (one item of the institutional bond scale: "I usually talk about the institution outside my workplace"), all the items of all the variables had corrected item-total correlation higher than 0.30 and in any case the removal of an item would improve the Cronbach Alpha of the scale. All the variables had high levels of internal consistency (Cronbach Alpha > 0.85). The scores of the scales were obtained by averaging the items of each scale. This way, the scales' scores can range from 1 to 5. The "overall job satisfaction" and the "overall evaluation of IC" were measured by one item and can also range from 1 to 5.

The analysis of the means of the scores, demonstrates high levels of institutional bond (M=4.49; SD=0.68). The items that most contributed to this average value are: "I understand how my work contributes to the achievement of the objectives of HEI" (M = 4.62; SD = 0.77), "I am committed with the mission of this institution" (M = 4.63; SD = 0.80), and "I feel proud to work in this HEI" (M = 4.57; SD = 0.74). The remaining items ("I feel I am an important part of this institution" and "I understand the vision, mission and objectives of the HEI"), although high, had lower average values than the previous ones.

The results also display a good relationship between organizational

members/services/supervisor ($M=4.24$; $SD = 0.79$). This variable comprises three items. The relationship between the employee and the director of the respective service ("There is a good relationship with the leader of my service / office / department / school" - $M = 4.51$; $SD = 0.88$), as well as the relationship between the employee and members of the service ("There is a good relationship between members of the service / office / department / school to which I belong" - $M = 4.25$; $SD = 0.87$), obtained higher average weights. The lowest average was attributed to the perception of employees with regard to coordination between the service to which they belong and the remaining services of the HEI ("There is good coordination between the service / office / department / school to which I belong and the remaining services / offices / departments / schools" - $M = 3.96$; $SD = 0.95$).

The results of the study indicated that the sample mean for overall job satisfaction was 4.14, that is, employees were, in general, moderately satisfied to extremely satisfied with their job. Respondents perceived these three variables (institutional bond; relationship between organizational members/services/supervisor; job satisfaction), which translate the link between the aspects inherent to the organization's culture, in a very positive way.

Concerning the overall evaluation of IC, the results show that, in general terms, there is a moderate evaluation ($M = 3.44$; $SD = 0.85$). The variable IC limitations had the lowest average value ($M=3.09$; $SD=0.89$). As regards the effectiveness of IC channels, 14 internal media were considered (for example, institutional website, newsletter, internal mail), and the respondents had to rate the effectiveness of each. The most efficient channel was the electronic mail ($M=4.17$; $SD=0.74$). The means' scores of "effectiveness of IC channels" ($M = 3.63$; $SD = 0.56$) were moderate.

All the three dimensions of the CS had mean score close to the middle point of the scale, indicating moderate levels of satisfaction with organizational integration ($M = 3.27$; $SD = 0.73$), corporate information ($M = 3.20$; $SD = 0.75$) and personal feedback ($M = 3.14$; $SD = 0.87$). Overall, the mean CS scores for the three factors indicate that, at best, respondents were only slightly satisfied with IC. The area of least satisfaction was personal feedback.

Next, we have analysed the correlations between the variables and the respondent's demographic and professional profile (Table 4).

Variables	Age (Correlation - Pearson)	Length of time in employment in the current position (Correlation - Spearman)	Gender		
			Female M (SD)	Male M (SD)	Student T Test
Institutional bond	0.174 ^{NS}	0.017 ^{NS}	4.58 (0.46)	4.45 (0.70)	$p = 0.378$
Relationship between organizational members/services/supervisor	0.080 ^{NS}	0.005 ^{NS}	4.34 (0.57)	4.21 (0.82)	$p = 0.443$
Overall job satisfaction	-0.075 ^{NS}	-0.132 ^{NS}	4.09 (0.86)	4.17 (0.82)	$p = 0.706$
Overall evaluation of IC	0.045 ^{NS}	0.038 ^{NS}	3.41 (0.84)	3.43 (0.81)	$p = 0.912$
IC limitations	0.017 ^{NS}	0.363*	3.16 (0.91)	2.95 (0.87)	$p = 0.338$
Effectiveness of IC channels	0.019 ^{NS}	0.025 ^{NS}	3.70 (0.59)	3.56 (0.54)	$p = 0.331$
CS					
Satisfaction with organizational integration	0.017 ^{NS}	-0.088 ^{NS}	3.18 (0.72)	3.34 (0.74)	$p = 0.370$
Satisfaction with corporate information	0.154 ^{NS}	-0.056 ^{NS}	3.11 (0.89)	3.21 (0.57)	$p = 0.585$
Satisfaction with personal feedback	0.070 ^{NS}	-0.082 ^{NS}	3.10 (0.95)	3.11 (0.82)	$p = 0.953$

^{NS} Not statistically significant ($p > 0.05$); * $p < 0.05$.

Table 4. Relationship between age, length of time in employment in the current position and gender
Source: Own elaboration

The results show that there were no statistically significant differences between males and females in any of the variables included in the study ($p > 0.05$). This result is consistent with the findings of Clampitt and Girardi (1993). The correlations with the age were all close to zero and non-significant ($p > 0.05$). Only the IC limitations are correlated with the length of time in employment in the current position ($r = 0.363$; $p < 0.05$), indicating that the respondents' perceptions of the limitations in IC increase with the length of time in employment in the current position. The time employees have been in their work positions is significantly linked to the perceptions of limitations in IC. The employees who have been longer in the current position tend to perceive the limitations of IC as higher. Similarly, to the study of Clampitt and Girardi (1993), also in the present study the usefulness of the demographic variables in explaining general organizational factors, IC processes and the three CS dimensions is limited. Predicting the level of satisfaction with communication based on demographic and occupational

characteristics can pose as a problem, since it was noted in the application of the questionnaire that respondents were afraid of filing in characterization questions.

4.3 Regression models

In Table 5, the results of the linear regression models are presented. These models were used to study the influence of some general organizational factors and IC processes (namely, the institutional bond, the relationship between organizational members/services/supervisor, the IC limitations, the effectiveness of IC channels and the overall evaluation of IC) have on satisfaction with organizational integration, on satisfaction with corporate information and on satisfaction with personal feedback.

Independent variables		Non standardized coefficient (B)	Standard error	Standardized coefficient (β)	Significant value (p)
Regression model considering satisfaction with organizational integration as the dependent variable	<i>Constant</i>	0.907	0.629		
	Institutional bond	-0.073	0.098	-0.071	0.458
	Relationship between organizational members/services/supervisor	0.307	0.087	0.344	0.001
	IC limitations	-0.168	0.070	-0.210	0.020
	Effectiveness of IC channels	0.283	0.128	0.223	0.030
	Overall evaluation of IC	0.265	0.079	0.324	0.001
Model: $F_{(5,75)} = 26.136; p < 0.001; R^2 = 0.642$					
Independent variables		Non standardized coefficient (B)	Standard error	Standardized coefficient (β)	Significant value (p)
Regression model considering satisfaction with corporate information as the dependent variable	<i>Constant</i>	0.363	0.691		
	Institutional bond	-0.097	0.114	-0.106	0.398
	Relationship between organizational members/services/supervisor	0.252	0.109	0.310	0.023
	IC limitations	-0.017	0.079	-0.024	0.828
	Effectiveness of IC channels	0.654	0.140	0.576	< 0.001
	Overall evaluation of IC	-0.022	0.093	-0.030	0.810
Model: $F_{(5,75)} = 12.505; p < 0.001; R^2 = 0.475$					
Independent variables		Non standardized coefficient (B)	Standard error	Standardized coefficient (β)	Significant value (p)
Regression model considering Satisfaction with Personal Feedback as the dependent variable	<i>Constant</i>	-0.236	0.692		
	Institutional bond	-0.105	0.113	-0.090	0.353
	Relationship between organizational members/services/supervisor	0.277	0.107	0.265	0.012
	IC limitations	-0.101	0.080	-0.110	0.208
	Effectiveness of IC channels	0.524	0.141	0.358	< 0.001
	Overall evaluation of IC	0.334	0.092	0.349	0.001
Model: $F_{(5,75)} = 29.015; p < 0.001; R^2 = 0.675$					

Table 5. Regression models
Source: Own elaboration

The independent variables explain 64.2% of the satisfaction with organizational integration, 47.5% of the satisfaction with corporate information and 67.5% of the satisfaction with personal feedback.

The relationship between organizational members/services/supervisor ($\beta = 0.344$; $p = 0.001$), the overall evaluation of IC ($\beta = 0.324$; $p = 0.001$) and the effectiveness of IC channels ($\beta = 0.223$; $p = 0.030$) have a positive impact on the satisfaction with organizational integration. On the other hand, the effect of IC limitations in this dimension is negative ($\beta = -0.210$; $p = 0.020$).

Only the effectiveness of IC channels ($\beta = 0.576$; $p < 0.001$) and the relationship between organizational members/services/supervisor ($\beta = 0.310$; $p = 0.023$) have a significant effect on the satisfaction with corporate information, in both cases positive.

The satisfaction with personal feedback is positively influenced by the effectiveness of IC channels ($\beta = 0.358$; $p < 0.001$), by the overall evaluation of IC ($\beta = 0.349$; $p = 0.001$) and by the relationship between organizational members/services/supervisor ($\beta = 0.265$; $p = 0.012$).

In the study of Carrière and Bourque (2009), the authors researched the relationship between IC practices and CS and found significant positive relationships between the two. The study also revealed that communication practices affected job satisfaction and organizational commitment. It was concluded that, independently of the quantity of information that is passed, IC systems that fail to generate CS amongst employees would not encourage job satisfaction or affective organizational commitment.

In this study, institutional bond did not assume relevance in the explanation of CS, therefore it does not appear to be an antecedent factor.

4.4 Correlations between communication satisfaction, overall job satisfaction and institutional bond

Correlations were used to identify relationships between three CS dimensions, overall job satisfaction and institutional bond. The results in Table 6 show that there is a moderate correlation between two dimensions of the CS - satisfaction with organizational integration ($r = 0.390$; $p < 0.001$) and the satisfaction with personal feedback ($r = 0.322$; $p = 0.003$) – and overall job satisfaction.

Variables	Overall job satisfaction	Institutional bond
CS		
Satisfaction with organizational integration	$r = 0.390 (p < 0.001)$	$r = 0.410 (p < 0.001)$
Satisfaction with corporate information	$r = 0.134 (p = 0.233)$	$r = 0.464 (p < 0.001)$
Satisfaction with personal feedback	$r = 0.322 (p = 0.003)$	$r = 0.370 (p = 0.001)$
Institutional bond	$r = 0.400 (p < 0.001)$	-

Table 6. Correlations (Spearman) between the communication satisfaction, the overall job satisfaction and the institutional bond (N = 81)

Source: Own elaboration

According to correlation indices, it seems that as satisfaction with organizational integration and satisfaction with personal feedback increases, job satisfaction does as well. Consequently, employees are more likely to be satisfied with their jobs if they are satisfied with the information they receive about their job progress (how employees are developing in their jobs), news regarding personnel, departmental policies and goals, their job requirements and employee benefits and pay. Furthermore, employees are more likely to be satisfied with their jobs if they are satisfied with the feedback they receive about their job performance and how they are being judged. These results are consistent with the suggestion that job satisfaction is influenced positively by the aim of communication (Tuzun, 2013). Within the communication literature the support for a positive relationship between CS and job satisfaction is found in different studies (Pincus, 1986; Varona, 1988; Clampitt & Girard, 1993; Goris, 2007; Bakanauskienė et al., 2010; Tuzun, 2013; Abdullah & Hui, 2014).

However, the satisfaction with corporate information ($r=0.134$; $p = 0.233$) is not significantly correlated with overall job satisfaction. This result was somewhat expected since it is plausible that the employees' level of satisfaction with the amount of information they receive, as a whole, regarding the organization's goals, policies and financial health, may be separate and distinct from the satisfaction with the job an employee performs in the university environment. As Tuzun (2013) points out, it is plausible that employees would be more satisfied with the communication at their level of work than that of the organization as a whole.

Pratt (1998 in Tuzun, 2013) argues that a new research area has focused on social identification as a form of better understanding the relation between individuals and a specific form of social grouping such as that of an organization. In the present study, positive correlations were found between the three dimensions of the CS and the

institutional bond variable. This finding is consistent with the results of studies that indicate a positive relationship between various dimensions of communication and identification (Smidts et al., 2001; Tuzun, 2013). The employees' strongest significant correlation was with corporate information ($r = 0.464$), and their weakest correlation was associated with personal feedback ($r = 0.370$). The organization's culture, values, norms and a shared meaning is enhanced by communications (Wiesenfeld, Raghuram, & Garud, 1998).

Positive relationships were also found between overall job satisfaction and institutional bond ($r = 0.400$; $p < 0.001$), which is in agreement with Turzan's study (2013). This author refers to several researches that have also found positive relationships between job satisfaction and identification with the organization.

5 CONCLUSIONS

In a demanding and increasingly competitive environment, HEI are asked to change and adapt pro-actively, not merely to attract potential students and financing but most importantly to promote and demonstrate their excellence to all stakeholders. HEI have very complex structures, with a large number of employees with very different roles. In this particular type of organizations (complex structures, different categories of professions) IC has a central dimension with a difficult effective application because it depends on the correct perception of the employee's duties and the importance each one plays in the overall institution, which is intrinsically connected to job satisfaction (Duarte et al., 2010).

This study was undertaken to explore general organizational factors, IC processes and CS among the employees of five functional units at a Northern Portuguese HEI. The research undertaken at this HEI shows the need to discuss communication in organizations, as well as the incorporation, in management, of this 'complex, and all-pervasive' organizational activity (Gray & Laidlaw, 2002). CS is important in providing effective communication processes among employees in organizations (Downs & Hazen, 1977). In this context, we consider that it is important to understand the potential factors influencing CS as well as the consequences of this crucial variable.

While this study may perceive to be limited by its discussion of one HEI, this single-case empirical enquiry is valuable to investigate an under-researched contemporary phenomenon in depth and within a real-life context, providing a valuable level of detail

and understanding of how to apply the theory into concrete organizational policy measures. In fact, the comprehension of the CS dimensions in developing positive working attitudes, in this single case study, allows the examination of the theory-hypothesised mechanisms and thus to test their explanatory capability. On the other hand, looking to the analysed data and taking an inductive approach we may perceive a new perspective contributing to the theory namely with the institutional bond variable. In fact, the theory has not taken into consideration the influence of CS on the institutional bond. Not only the causality relation has been under-researched but moreover our data shows potential in generating a new hypothesis.

In this study, the relation between some IC processes and their association with CS were analysed. Therefore, it contributes to the IC and CS literature, in the HEI context. In fact, CS has not been widely studied in the Portuguese HEI context and this construct should be given more relevance in view of its potential influence in several work-related attitudes and behaviours. It is hoped, that this study has contributed to a better understanding of the importance of IC in developing positive attitudes in work scenarios, particularly job satisfaction and the building of an institutional bond.

The managers of this HEI should recognize that IC is an ongoing process that requires the application of communication audits to monitor CS among all employees. This allows them to identify barriers that hinder open and effective communication (Gray & Laidlaw, 2002). As noted by Tourish and Hargie (1998), conducting a communication audit will enable managers to identify the strengths and weaknesses of the communication system in order to develop a comprehensive communication strategy.

The employees who have answered the questionnaire recognize their contribution to the institution's aims. They are committed and are proud to work in this institution. Furthermore, they are quite satisfied with the work they perform. Thus, managers of HEI (and especially the directors of these services) should enhance this strong institutional bond and job satisfaction. These issues are a relevant part of the organizational culture and its dissemination to the internal public is, particularly important to integrate all organizational members and to show the organization's identity.

The reported moderate level of satisfaction with the three CS dimensions suggests that HEI policy must consider communication as a key aspect of its strategic plan. Not to encompass these findings is clearly a drawback in the accomplishment of a credible

environment of excellence.

The results show that the effectiveness of IC channels is perceived globally as being regular to good. Also, the results show that this effectiveness has an impact on CS. Thereby, another practical implication is that managers of this HEI should reflect on the predominance of a degree of regular effectiveness in certain channels (e.g. not yet reached their full potential). As an example, we can take the newsletter, the weekly clipping, and the agenda, as they play important roles in terms of the creation of a shared culture, seeking to ensure that human resources of the institution are well and clearly informed. Such tools should present topics that are of interest to all and should serve to support the affiliation needs, and be a means to give voice to different people. The managers of this HEI should use both rich and lean channels to communicate organizational information (corporate/organizational information and staff related information) to the employees, as long as the channels are effective.

As stated before, the results of this study point out that CS is related to overall job satisfaction. Taking into account that the managers of this HEI can and should train their employees on the importance of effective communication, it is imperative that they create an environment of open communication, which can contribute to a more efficient workplace at this HEI.

The reluctance in responding to characterization issues suggests the presence of some fear of exposure. Thus, it is quite import to undertake some effort in the development of a communication strategy in order to increase the understanding and knowledge of the different aspects of communication and their importance.

5.1 Limitations and future research

This study has some limitations that should be addressed by future studies. Since this work is entirely based on evidence from one HEI of a specific Portuguese region (employees of one northern Portuguese HEI), results should be interpreted with some caution. Although this approach allows for a deeper understanding of the actors under investigation (due to the homogeneity of the respondents), no generalisations to other HEI (or regions) can be made. The magnitude and direction of the studied relationships might be different if the research were to be conducted in other HEI and regions.

The research only looked into one employee group (administrative/technical officers, that is, non-teaching staff) in five functional units - not having examined the perceptions

of other internal stakeholders such as teaching staff members, research centres staff members, among others. It is expected that a wider and deeper knowledge of the perceptions of other internal publics to be relevant to further understand the role of IC in this HEI.

The sample size for this study was relatively small ($n=81$), for two reasons: 1) it is an exploratory study and only the five existing services were considered in this HEI. The aim was to have a first perception on the views of non-teaching staff; 2) Because of time constraints it was necessary to have some significant conclusions that would help the elaboration of the communication plan for the institution. Thus, future large-scale research will be instrumental in determining whether these findings can be replicated.

In addition to the referred limitations, conducting a long-term quantitative study would show how individual employees' perceptions on IC processes and CS in the universities changes over time.

This is a preliminary study that has included only three dimensions of CS. In further studies, it is strongly advised that the whole dimensions of CS are taken into consideration in order to better explore the analysed relationships. Furthermore, another concern relates to the job satisfaction variable, which was measured on a single item scale. Future studies should adopt multi-dimensional conceptualizations of this construct. To conclude, future research could test the relationships between CS in relation to other organizational variables different from those examined in the present study, such as job performance and organizational commitment.

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