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# Organizational commitment, job satisfaction and their possible influences on intent to turnover

Organizational  
commitment

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## Abstract

**Purpose** – The purpose of this paper is to investigate the extent to which the organizational commitment and job satisfaction influence intent to turnover.

**Design/methodology/approach** – Following a quantitative approach regarding methodological aspects of this research, a case study was carried out in a company of information technology and communication located in Porto Digital, in the Northeast of Brazil. A data collection technique with 172 forms, a self-administered form with 18 closed questions with a Likert-type scale and an open questionnaire were used. In this analysis, Statistical Package for the Social Sciences (SPSS) software was used as the technique; besides the descriptive statistics, a correlation was made between dependent variables (intention of rotation) and independent variables (affective, normative, instrumental and work satisfaction). The level of organizational commitment in its three dimensions (affective, normative and instrumental), the job satisfaction in its five dimensions (satisfaction with nature of the task, with leadership, with colleagues, with salary and promotions) and the level of intent to turnover from the respondents were investigated.

**Findings** – The results suggest that affective and normative commitments and satisfaction with pay, satisfaction with promotions and satisfaction with the nature of the work are correlated with the intention of negative turnover significantly. Among the demographic factors, only the age showed a negative correlation with intent to turnover. By performing multiple regression analysis, we identified that the variables that most impacted the turnover intention are affective commitment, satisfaction with salary and normative commitment. The qualitative portion of this study was accomplished through a content analysis of the open question of the form. Finally, one of the main considerations is the findings that revealed variables other than those adopted in the study, which influence the permanence of the respondents.

**Research limitations/implications** – Among the limitations of the research a single case study is highlighted that replicates the experience in other ICT companies to verify if the results found are similar in other organizations and in other segments. The findings direct the construction and validation of new scales, the creation of qualitative protocols to identify the variables that influence the retention of a specific group of individuals to serve as a guide for the elaboration of a questionnaire, as well as creation of surveys of longitudinal nature to correlate the data of intention of rotation with the effective turnover.

**Practical implications** – Based on the results, organizations can reduce voluntary evasion by adjusting actions, policies and practices, directing those responsible for People Management to attract and retain good employees. It should be emphasized that voluntary turnover should be treated as one of the management indicators of greater relevance by organizations, representing a thermometer of all human capital management.

**Social implications** – The monitoring of employment and unemployment levels is part of the public policy agenda for generating employment and income in Brazil. For organizations, employee turnover can and should be managed and monitored so that appropriate levels are found and their consequences are minimized through effective solutions. The results are important both for technology-based organizations and for all stakeholders interested in the subject as the public power.

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**Originality/value** – Although in the international literature turnover is a topic of study for many years, in the Brazilian context, there is a shortage of research on the subject, specifically in the sector of advanced technology where there is a great lack of skilled labor, a fierce competition and where to keep employees standard high becomes a survival factor. This study may contribute to the exploration in the local literature, as it will help locate the academy on the Brazilian reality and open the doors to new research works on turnover and its possible correlations with other variables besides organizational commitment and job satisfaction.

**Keywords** Organizational commitment, Turnover, Job satisfaction

**Paper type** Research paper

## 1. Introduction

Turnover is a critical factor to the organizations, to individuals and to the society and presents both positive and negative aspects (Phillips and Connell, 2003). Although there are studies of turnover in the last 30 years in behavioral area and human resources with theories about voluntary resignation (Tett and Meyer, 1993; Mobley, 1992; Lee and Mowday, 1987; Dalton and Todor, 1979; Burguess *et al.*, 2001), such as in labor economics area (Du *et al.*, 2006; O'Higgins, 2012), in Brazil they were identified as efforts with works of Pinto and Gonzaga (2014) and Cardoso and Lage (2007). However, the turnover in Brazil still has gaps in academic research agenda (Campos and Malik, 2008; Menezes and Bastos, 2010). Market data, as studied by Corseuil *et al.* (2013), who analyzed the Brazilian turnover from 1996 to 2010, corroborated with the importance of the theme and its maintenance in research agenda.

There are various reasons why an employee leaves the organization or has the intention to leave (Gaylard *et al.*, 2005; Agapito *et al.*, 2015). After a literature collection, two constructs were chosen usually mentioned as influencers of this decision or intention to leave the organization, which were “job satisfaction” and “organizational commitment” (Tett and Meyer, 1993; Gaertner, 1999; Mobley, 1992; Griffeth *et al.*, 2000; Du *et al.*, 2006; Lee and Mowday, 1987; Yucl, 2012; Baotham *et al.*, 2010).

Retaining professionals is a permanent challenge in an organizational environment that also remains as the most persistent challenge faced, especially by the information technology (IT) sector, with its particularities and shortage of labor in the Brazilian scenario (Joseph *et al.*, 2007; Fernandes *et al.*, 2013). The comprehension of the factors which influence the voluntary exit or the intention of doing it might be quite valid to the enterprises which can direct their strategies and actions of human resources, aiming to keep the good professionals (Lee and Maurer, 1997; Medeiros *et al.*, 2003; Stewart *et al.*, 2011).

Located in Brazilian Northeast, T.E.C, real institute with fictional name, was chosen as the locus of this research. It is one of a few institutes of research and development of Technology of Information and Communication (TIC) that exists in Brazil. Established in the 1990s by professionals of area, T.E.C is a civil, non-profit, private association which creates products, processes, services and enterprises using TIC. Based on the argument exposed here, the following question of research was formulated:

*RQ1.* How far the organizational commitment and job satisfaction influence the intention to turnover, according to the perception of employees of T.E.C. Institute?

## 2. Theoretical reference

### 2.1 Turnover

The noun turnover is attributed to inflow and outflow of employees of an enterprise and it is considered one of the most important organizational phenomena, because it obligates the managers to be capacitated to analyze, comprehend and manage its consequences. Phillips and Connell (2003) defined the turnover of the establishment plan of an enterprise as the opposite of its retention. It is expressed through a percental relation among admission

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and terminations related to the average number of employees, during a certain period of time, independent of the reasons which cause that flow.

Turnover is categorized into two types: involuntary and voluntary. When the loss of human resources is not provoked by the organization, it becomes essential to identify the reasons of turnover, because of the importance of retaining better talents. The objective of this research was to analyze the voluntary turnover and highlight the necessity of the effective management of this phenomenon.

In regard to the consequences of turnover, part of the research about this subject is based on its causes and correlations and some models are proposed: the linkage model (Mobley, 1992), conceptual model of employees' turnover and retention (Winterton, 2004), and the context model of professionals of IT turnover (Joseph *et al.*, 2007).

There are several negative and positive consequences of turnover, as in organizational, individual scope, and as in society (Dalton and Todor, 1979). The following consequences are related to the organization. The negative ones are:

- financial cost;
- productivity/Effectivity fall;
- impact in social networks and communication;
- loss of expertise/Know-how; and
- moral fall.

In regard to the consequences to the individual, it is important to highlight that not always the reason of the turnover is related to the organization. There are personal reasons such as changing of spouse job, the wish to dedicate to family or to indulge in another activity. The change of enterprise reaches the individuals in all spheres of life, since we must have a full vision of the individual, not only under the professional perspective. The individuals who remain in the organization are also affected as many of them start to question their careers, feel the loss of the contact with job colleagues and do not even have the commitment and the satisfaction in job that leads to instability. Moreover, they can be overworked by assuming activities of the employees who leave the organization.

In regard to consequences to society, according to Mobley (1992), the excessive turnover may increase the costs of production and result in a deficient productive capacity, due to the lack of trained people. The absence of qualified professionals in a determined region may result in an inviable determined operation, thus affecting the region socioeconomically (Silva *et al.*, 2013).

Table I portrays some of possible negative consequences of the turnover mentioned in this section, in regard to organization perspective, individual (who stays and who leaves the organization) and the society.

Among the positive consequences of turnover, there is the oxygenation of the organization, bringing other persons with new knowledge, expertise, ideas and professional experiences. Following the same rationale, Dalton and Todor (1979), Staw (1980), and Mobley (1992) in their studies provided ways by which the turnover may increase the organizational effectiveness such as through reduction of conflicts in extreme cases, increase in the internal mobility due to new opportunities coming in, stimulus to innovation and flexibility, increasing in employees' moral when an undesired superior or colleague leaves the organization, etc.

In studies of turnover monitoring in Brazil, Pinto and Gonzaga (2014) reinforced the importance and the actuality of themes, presenting challenges to the organizations in reversion of the intention of leaving of the organizational talents. Research works realized in IT area identify the intention of turnover as one of the important factors of prediction of turnover; however, the relation between intention and turnover was not researched well in this sector (Thatcher *et al.*, 2003).

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Organization	Individual who leaves	Individual who remains	Society
Costs (recruitment, admission, adjustment, training)	Loss of the condition of old employee and correlative gratifications	Shake in social and communicational pattern	Increasing of the production coasts
Costs of substitution	Loss of extraoficial benefits	Evasion of work colleagues	Inability of the region to keep and attract industries
Costs of dismissal procedures	Shake in systems of social and familiar support	Less satisfaction	
Shake in social and communicative structures	Stress related to transition	Increasing of work load	
Evasion of high performance employees	Interference in the flow of spouse career	Less cohesion	
Less satisfaction among who remains	Regression in career flow	Less commitment	
Stimulus to use indifferenced strategies to control the turnover			

**Table I.**  
Example of possible negative consequences of turnover  
**Source:** Mobley (1992, p. 51)

The option for adopting the intention of turnover as a variable in this research is due to the fact that it represents a potential wish of leaving of actual employees of researched enterprise. A literary review reveals that the most of variables, which affect the intention of turnover, may be grouped in demographics, job satisfaction and organizational commitment (Du *et al.*, 2006). Therefore, the aim of this study is to analyze the intention of leaving the organization, as well as to relate this intention in organizational commitment and job satisfaction perspective of employees. In the next sections, these subjects will be reviewed in detail.

### 2.2 Organizational commitment

Mowday (1984) defended that a high level of commitment of employees may be one of the ways to minimize the consequences of the turnover. For this reason and for this construct to be considered as one of the causes of the turnover, this subject was chosen for this study to analyze the commitment of the employee with the organization. By definition, Siqueira and Gomide Júnior (2004) understood that the organizational commitment is a relation at a psychological state maintained between an employee and organization. To Baotham *et al.* (2010), it is the degree of loyalty and support that the employees show to the organization, having, according to Robbins (2005), a positive correlation between the commitment and the will to remain in the organization.

The study about the commitment concept is largely diversified due to multiple objectives that may be the aim of this bond (Bastos, 1993). In Brazil, the research that investigates exclusively the organization focus is predominant (Medeiros *et al.*, 2002). About the state of art of research in Brazil, it is highlighted in the study of Medeiros *et al.* (2003) who, analyzing the agenda of research, pointed the relevance of the theme, the focus of research and the gaps.

In the meta-analysis of Jaros *et al.* (1993), the authors stand out against the controversies which exist among the concepts of organizational commitment regarding its attitudinal or behavioral nature. In the attitudinal vision, there is a consensus that it is a multidimensional construct, though the research works are still not conclusive. According to Bastos *et al.* (2008), the other strand highlights the necessity of investigating the commitment since behavioral indicators or processes bond the individual to a specific course of action. The behavioral commitment label searches emphasize the effect of the commitment of the past over further choices. In this study, the attitudinal perspective was used.

Soldi and Zanelli (2006) identified six approaches to the studies of commitment: affective, instrumental, normative, sociological, behavioral and affiliative; however, the unidimensional approach of commitment strongly influenced the study of the construct until the 1980s and originated the most widespread organizational commitment measure, the Organizational Commitment Questioner. Although it is recognized as the amplitude of the research works in commitment area and the critics to the model (Medeiros and Enders, 1998; Rodrigues and Bastos, 2010), due its actuality in this study, it was used as the tridimensional model developed by Meyer and Allen (1991) and contributors. In the review of Meyer and Allen (1991), the authors affirm that, although there are some commitment concepts, there appear to have at least three common dimensions: attachment or affection to the organization (affective commitment), perception of loss on leaving the organization (instrumental commitment) and the obligation to remain in it (normative commitment).

Affective commitment, the approach which prevails in the literature of organizational commitment, is the one which defines the concept as an affective or emotional bond to the organization (Jaros *et al.*, 1993). Committed individuals identify themselves as involved and like to be part of the organization (Allen and Meyer, 1990). The normative commitment, though, is conceptualized by Bastos (1993) with the conjunct of normative pressures internalized by the individual behavior according to objectives and interests of the organization.

The instrumental commitment is a type of psychological appeal which reflects the degree in which the individual feels himself stuck in a place because of the high costs associated to abandon it (Bastos *et al.*, 1997). Oliveira *et al.* (2007) considered this dimension as an approach that is a more intrinsical motivation to individuals; it means that they remain in the organization with the only objective of satisfying their necessities. Medeiros *et al.* (2002) commented that several studies point empirical evidence that relate the instrumental commitment to indicators related to investments made by the individuals at the workplace and also with alternative jobs. In the next section, another construct will be approached which composes this study: job satisfaction.

### 2.3 Job satisfaction

As per Spector (1997), job satisfaction is how the employee feels about the enterprise or about determined aspects of it. It is how much the person likes (satisfaction) or dislikes (dissatisfaction) his work (Siqueira and Gomide Junior, 2004). The expression job satisfaction represents how much an individual experiences pleasures in the organizational context. It is the reflection of the convergence between individual personal interests with what is given by the organization (Baotham *et al.*, 2010).

Although past years suffered mutations, conception of job satisfaction was understood as a motivational aspect or as an attitude, which has been pointed as a concept that involves effectiveness contemporarily, the job satisfaction did not suffer great modifications in its constitutive dimensions. The dimensions that were kept along the time were five: satisfaction with the payment, with job colleagues, with the boss, with the promotions and with work itself (Siqueira, 2008), shown in Table II.

These factors are the most frequent sources of job satisfaction. It is important to highlight that the expression job satisfaction represents how much the individual experiences pleasures in an organizational context. Then, each one of these factors represents the source of these experiences. In this study, the multidimensional vision was adopted, in order to relate each aspect of the construct with turnover intention, as well as its intensity.

As per Almeida and Paula (2015), creating measuring instruments is not a simple activity, because it is related to the complex sum of different elements. The global unique classification and the sum of the points formed by different aspects of the work are the two most used approaches; perhaps, these are the ones that follow job satisfaction throughout a unidimensional perspective with a broader attitude which do not consider its specific

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Dimensions	Definitions
Satisfaction with the colleagues	Contentment with the collaboration, the friendship, the trustiness and the relationship maintained with the job
Satisfaction with the payment	Contentment with what is received as salary in comparison with how much the individual works, with his professional capacity, with the cost of the life and with the efforts doing the job
Satisfaction with the boss	Contentment with the organization and the professional capacity of the boss, with his interest for the employees' works and understanding among them
Satisfaction with the nature of the job	Contentment with the interest created by the tasks, with the capacity of absorber the job and the variety of them
Satisfaction with the promotions	Contentment with the number of times that received promotions, with the guarantees offered to who is promoted, with the way of the enterprise to make promotions and with the waiting time for promotion

**Table II.**  
Dimensions and definitions of job satisfaction

**Source:** Adapted from Siqueira (2008)

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aspects and criticizes the construct multidimensionality, highlighting that the dimensions or particular aspects of the job are innumerable, varying according to the situations, then, making difficult theoretical formulations and elaborations about the concept (Yucel, 2012). In this study, the multidimensional vision was adopted, intending to relate each aspect of the construct with the turnover intent, as well as its intensity. An instrument composed in sub-scales, referent to specific aspects of the job related to satisfaction, elaborated by Siqueira (2008), was used in this research. As per Siqueira (2008), investigating job satisfaction means evaluating how much the offered returns by the enterprise in salaries and promotions satisfy the individual, how much convenient he/she is with the colleagues and the bosses, and how much the tasks given to the employee makes him/her glad and gives a feeling of pleasure. In the sequence, the possible relations will be approached between organizational commitment and turnover intention.

### *2.4 Organizational commitment, job satisfaction and turnover intention*

Organizational commitment and job satisfaction are invariably found as turnover intention background (Iverson, 1999; Du *et al.*, 2006; Ferreira and Siqueira, 2005; Rouse, 2001; Baotham *et al.*, 2010). Tett and Meyer (1993), through a meta-analysis with 155 papers, suggested that these constructs contribute independently in turnover intention, affirming that in last decades research works that developed voluntary turnover models considered these two concepts as background. Chang *et al.*'s (2013) study seeks to identify the factors which influence the decisions of the worker to leave or stay in the organization, identify in job satisfaction and the commitment as the most common.

According to Carayon *et al.* (2006), studies conducted on IT professionals have identified the turnover intention as a result of organizational commitment and job satisfaction. They affirm that turnover intention is strongly influenced by these two constructs, still highlighting the impact of other demographic variables as career experience (Bastos, 1993).

In their studies, Allen and Meyer (1990) still added that in all three approaches of organizational commitment (affective, normative or institutional), the commitment is understood as a negative indicator of turnover, because it decreases its possibility. One of the greatest preoccupations of the organizations is to keep their employees motivated, in order to obtain good organizational commitment (Paula and Mendonça, 2014). The consequences of job satisfaction were also explored in the literature. The results demonstrated that the affective bond of the employee with the dimensions of job satisfaction may generate positive results to the organization. Siqueira and Gomide Junior (2004) affirmed that persons with the highest levels of contentment with the job are also the ones

who less plan on leaving the enterprise, which in turn results in lower absence, better performance and increased productivity.

The meta-analysis of Hellman (1997), made with 50 studies, had an objective to clearly show the relation that exists between job satisfaction and turnover intention. The results suggest a relation significantly different of zero and negative in studies realized in the USA (Winterton, 2004). Du *et al.* (2006) identified that the variable job satisfaction affects turnover intention significantly. In Brazil, Ferreira and Siqueira (2005) concluded that the variable turnover intention presents negative correlation with the job satisfaction significantly, as well as suggest that this is a direct background of the first one (Tett and Meyer, 1993; Griffeth *et al.*, 2000). Next, the methodology of the research is described.

### 3. Method

The purpose of the present research is to present a descriptive formal case study of qualitative and quantitative nature. Cooper and Schindler (2003) affirmed that the case studies emphasize on the contextual analyses with few facts or conditions and its interrelations. Godoy (2007) suggested that descriptive research works have an objective to describe the characteristics of determined population or phenomenon. The independent variables of the study are organizational commitment (affective, normative and instrumental), job satisfaction (satisfaction with the salary, with the colleagues of the workplace, with the bosses, with the promotions and with the nature of the job) and demographic factors (age, gender, marital status, schooling, time in service, actuation area and senior level in occupied function). The dependent variable is the turnover intention.

The place chosen to make this research was T.E.C (fictional name); one of the few private institutes of development and research in Brazil, located in the Northeast region of the country. The T.E.C has been for over ten years and has about 400 direct employees. The population of this study is the celetistas[1] workers of T.E.C who work in IT area.

A questionnaire was applied in the Human Capital area of T.E.C, at the workplace of each responder or in work reunions. From total research population, 261 employees of IT area of T.E.C participated in the study, and returns index of 65.9 percent was obtained, corresponding to 172 responders. The instrument of this research was a questionnaire self-applied with an open question. This type of instrument is considered by Cooper and Schindler (2003) as a way to question the responder through a set of questions, but without the intervention of the researcher. The first part of the questionnaire had the objective of charactering the level of dimensions of organizational commitment. For that, an instrument with 18 items was adopted with a Likert-type scale with variation from 1 to 5 that originally was applied by Meyer *et al.* (1993) and previously validated in Brazil by Medeiros and Enders (1998). The dimensions are affective commitment (Cronbach's  $\alpha$  0.85), instrumental commitment (Cronbach's  $\alpha$  0.78) and normative commitment (Cronbach's  $\alpha$  0.73). The instrument approaches the three factors of organizational commitment.

The second part of the questionnaire measured the turnover intention. For that, the unifactorial Turnover Intention Scale was used with three items (Cronbach's  $\alpha$  0.95) by Siqueira, Gomide Junior (2004). The Likert scale had five points: (1) never; (2) rarely; (3) sometimes; (4) often; (5) forever.

In the third part of the questionnaire, the Job Satisfaction Scale was used by Siqueira (2008). This reduced version of the questionnaire with 15 items is composed by following dimensions: satisfaction with colleagues in workplace (Cronbach's  $\alpha$  0.81), satisfaction with the salary (Cronbach's  $\alpha$  0.90), satisfaction with the bosses (Cronbach's  $\alpha$  0.84), satisfaction with the nature of the job (Cronbach's  $\alpha$  0.77) and satisfaction with the promotions (Cronbach's  $\alpha$  0.81) – each factor with three items (Siqueira, 2008). The Likert scale that was used in satisfaction measurement had five points that go from “very unsatisfy” to “very satisfy.”



The fourth part of the questioner consists of an open question that solicited the responders to write in few words what makes them to remain working at the institute. The last part of the questionnaire consists of demographic data of the responders.

At the quantitative part, the software SPSS was used to analyze and interpret the results and the data were submitted for a descriptive statistical analysis through parameters as media, standard deviation and frequency. Besides that, a case study was proceeded to find the correlation with the intention to identify the measure of the relation among the variables: the dependent variable (turnover intention) and the independent variables (affective, normative and instrumental commitment) and job satisfaction (aspect: salary, promotion, colleagues, bosses and task nature). The multiple linear regression technique was also used to estimate the value of the researched variables with the weighted values identified above; after identifying the normal distribution of the data, stepwise method was opted that is the most used technique to select variables (Cooper and Schindler, 2003), while *F*-test is appropriate in exploratory stages of the research to identify the useful sub-conjunct of predictors and add the most significant variable or remove the variable identified as less significant, being coherent with the objectives of the research and elements of worked constructs in dependent and independent variables. The regression may be a great ally to correlation, if there is interest in intensity or strength of the association among variables (Levin and Fox, 2004). According to Abbad and Torres (2002), research works in the organizational behavioral area delineated to examine the effect caused by two or more independent variables over a dependent variable use this technique of analysis. This technique was adopted because there was an objective of this study that seeks to identify what are the main predictors of turnover intention (dependent variable).

The open question in the questionnaire was idealized with the aim of supporting and sustaining the quantitative analysis of precited data and to identify which other variables, beyond the contemplation in this study influence the performance of institute responders. For that, it was submitted to a content analysis; according to Bardin's (2008) definitions, it was opted because of the suitability of her method to reach the objectives, as well as she is the author of reference in the content analysis. The stages of analyses were data collecting, themes identification and thematic categories formation. The data collection was realized by the junction of all responses of the participant to the open question in the questionnaire. From these texts, they were identified as the themes. The quantity of comments about each theme was considered as the frequency, which is an indicator of the traces being more or less relevant.

After being identified, the themes were grouped into thematic categories. The criteria to form the categories were semantics, it means that the themes that had the same meanings and were related to the same concept were reunited in the same category. However, it is important to highlight that, in this moment of data analysis and formation of thematic categories, although the categories have been formed from private to general, they were also considered as a guide in this process, the categories originated in theoretical reference, mainly the relatives to organizational commitment constructs and job satisfaction, present in this study and in turnover theory, or then based in identified words in registry units.

The last part of the questionnaire consists of demographic data of responders, fundamentally important to gain knowledge of population and identification of correlations with the constructs worked in the research for seeking significant information obtainable in different groups which exist inside organization. Researched data in demography were age, gender, marital status, schooling, time of service in institution, actuation area according to the structure of the researched organization (technique areas: design, engineering, quality or support) and senior level in occupied function.

#### 4. Results

About demographic data, in this research 172 individuals participated in total, in average age of 28.5 years, 144 employees being male and 26 females. These data confirm that IT area

has majority of male professionals. Almost half of responders (48.5 percent) are between 25 and 29 years old, which means a very young public. Because of the very young profile of the employees, it is natural that a considerable part of them is still single; in this case, more than half (54.7 percent).

The schooling of responders is an important result. Although the public being very young, 45 percent of responders are post-degree graduates, being *stricto* or *lato sensus*. It is important to highlight that 25.1 percent has finished the master's degree and many of them are pursuing Master's. This characteristic is already weighted because it is about a Research and Development institute in IT area.

It is relevant to quote the high indexes of institute rotativity. As an example, in 2008, the level of oxygenation of the enterprise (sum of voluntary and involuntary turnover) was around 34.1 percent (Human Capital of T.E.C). Even if they considered this information, it is valid to highlight that 27.5 percent of responders worked at the Institute at most for four years and only 13.5 percent has more than five years in service.

Related to senior level of technical professionals, which variates from technical level to specialist level, the higher concentration occurs in levels junior and full, which represent 69.6 percent of the sample. However, it is important to highlight that the most frequent senior level was the junior with 36.3 percent of responders and that 19.9 percent are seniors or specialists.

Organizational commitment level was investigated according to Meyer *et al.*'s (1993) model. Table III exposes the averages, the standard deviation and the Cronbach's  $\alpha$  of construct dimensions, as well as the percentage of responders who presented each type of commitment. For result effects, it was considered that an average over 3.0 (three), in a score scale from 1 to 5, represents a positive answer to the perception of organizational commitment and its dimensions.

Through the verification of commitment dimensions in relation to the average, the researched individuals presented a considerable affective commitment in relation to the average (average 3.6), being this the only dimension considered positive by chosen parameters. The information contained in Table III corroborates this vision, since 85 percent of responders demonstrate to be affectively committed. This result suggests the existence of an affective bond and highlights the emotional nature which may unite the individual to organization, in function of the attending expectations and special necessities. In this context, quoting Allen and Meyer (1990), the individual remains in organization because he wishes.

The instrumental commitment was under the average (2.5). This may indicate that the employees remain in Institute because other reasons, but not because of reasons related to instrumental commitment, that is, fearing the costs or associated losses to its leaving, necessity, etc. (Medeiros and Enders, 1998).

According to Rego *et al.* (2005), probably the employees that have a strong emotional bond do not have any pretension to empower the organization something else beyond that

Indicators of organizational commitment	Average	Deviation	Cronbach's $\alpha$	$M > 3$		$M \leq 3$	
				<i>n</i>	%	<i>n</i>	%
Affective commitment	3.6	0.59	0.77	147	85	25	15
Instrumental commitment	2.5	0.70	0.69	35	20	137	80
Normative commitment	2.5	0.79	0.78	43	25	129	75

**Notes:** Obs1:  $M > 3$  represents a positive answer to commitment perception; Obs2:  $M \leq 3$  represents a negative answer to commitment perception

**Source:** Made by the authors

**Table III.**  
Indicators of  
organizational  
commitment  
(averages,  
deviation and  $\alpha$ )

what they are closely obligated. For these reasons, having this dimension would not do something necessarily good to the organization.

Different from two anterior focuses, the normative bond is constituted in a conjunct of thought, obligations and moral duties to the organization. These sentiments are also accompanied or covered with others, like guilty, uncomfortableness, apprehension and preoccupation when the employee think or plan to leave the organization (Siqueira, 2001).

The normative commitment also appears with a result under the average (2.5). To Rego *et al.* (2005), there are reasons to infer that the organizations have interest to promote affective and normative bonds for its collaborators and to reduce the instrumental bond strength.

Job satisfaction level sought to identify the level of responders. It was used as the resumed scale of Siqueira (2008), according to which, in the results of the analysis, the higher the average score, the higher will be the level of contentment or satisfaction of the employee with that dimension of his job. Therefore, by calculating the averages in relation to the proportion of scores, averages over 3.57 tend to indicate satisfaction. Averages equal or lower than 2.78 tend to signalize dissatisfaction, and values between these cited averages inform an indifferent state, i.e., nor satisfaction or dissatisfaction.

Through generated results about job satisfaction dimensions, it is noticed by data exposed in Table IV that the satisfaction with colleagues, with average of 4.15 was considered the dimension of more satisfaction and with a considerable intensity. The percent of satisfied employees with job colleagues (89 percent) corroborates with these findings.

Following, the dimension Satisfaction with the bosses, with average of 4.06, also indicates a high level of dissatisfaction. The percent of responders who show satisfaction with bosses is 85 percent. It may be highlighted, then, that dimensions related to interpersonal relationship and to convivence with organization people were better evaluated.

In the sequence, the satisfaction with the nature of the job presented average of 3.74, being considered also positive and 70 percent of individual demonstrated to be satisfied with the nature of the job.

The averages of satisfaction with salary (2.58) and satisfaction with promotions (2.47) are under the average, although the considerable standard deviation (0.92 and 0.88, respectively). These data suggest that the individuals dissatisfied with their remuneration or salary politics were adopted by the organization. In percentage terms, 59 percent of responders consider themselves dissatisfied with the salary and 66 percent consider themselves dissatisfied with the promotions.

In a general way, considering the averages of all scores, the results indicate that 56 percent of responders present a state of indifference (nor satisfied or dissatisfied), 34 percent consider themselves satisfied and only 10 percent consider themselves dissatisfied. The highlights in percent of each indicator are marked in Table IV.

Turnover intention was identified as the perception of the employees of the Institute in relation to such indicator. Table V presents the results of the research. The variable had a

Indicators of Job Satisfaction	Average	Deviation	Cronbach's $\alpha$	Dissatisfied		Neutrals		Satisfied	
				<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Satisfaction with colleagues	4.15	0.56	0.67	2	1	17	10	153	89
Satisfaction with Salary	2.58	0.92	0.92	101	59	38	22	33	19
Satisfaction with bosses	4.06	0.71	0.83	10	6	15	9	147	85
Satisfaction with the nature of the job	3.74	0.69	0.77	19	11	32	19	121	70
Satisfaction with the promotions	2.47	0.88	0.84	114	66	36	21	22	13
Job satisfaction (general)	3.40	0.48	0.83	18	10	96	56	58	34

Source: Made by the authors

**Table IV.** Indicators of job satisfaction and general satisfaction (frequency)

low average of 2.74 (minimum 1 and maximum 5), but this information separately does not enable the identification of the portion of responders that has intention to leave.

For a better comprehension and aiming to enable an accurate analysis, two groups of responders were formed from variable "turnover intention." Group A is composed by responders that obtained average lower or equal to 2.5, it means that, according to the study, they demonstrated no intention to leave. And in the other extreme, the individuals in Group B had average higher or equal to 3.5, it means they demonstrated to have a considerable intention to leave the organization.

Therefore, it is assumed that in Group A 38 percent of responders do not have any intention to leave the organization. In other extreme, the Group B with 15 percent of responders indicates that they have a strong wish of leaving the organization. And the neutral responders represent 47 percent of the sample.

In the correlation between organizational commitment and turnover intention, the three dimensions of commitment are related with the turnover intention in a negative way, but with different intensities. The correlation between instrumental dimension and turnover intention is practically null ( $r = 0.08$ ), that is, the results tend to indicate that this type of commitment is not associated with intention to leave the organization (Table VI).

The correlations, however, between the affective ( $r = -0.46$ ,  $p > 0.01$ ) and normative ( $r = -0.32$ ,  $p > 0.01$ ) dimensions with the turnover intention were negative and moderate. It is possible to find this correlation in comparison to the results in Table VII, under Group A (responders that have low turnover intention) and the Group B (responders that have high turnover intention). It is verified that there is a significant difference in percent of employees

## Organizational commitment

Variable turnover intention	Average	Deviation	Cronbach's $\alpha$	Group A		Neutral		Group B	
				<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Turnover intention	2.74	0.81	0.826	66	38	80	47	26	15

**Source:** Made by the authors

**Table V.**  
Indicator of turnover intention

Variables	1	2	3
1 Affective commitment			
2 Instrumental commitment	-0.005		
3 Normative commitment	0.299**	0.129	
4 Turnover intention	-0.462**	-0.084	-0.325**

**Note:** \*\*Significant at the 0.01 level

**Source:** Made by the authors

**Table VI.**  
Correlation between dimensions of organizational commitment and turnover intention

Dimensions of organizational commitment	Group A ( <i>n</i> = 66)				Group B ( <i>n</i> = 26)			
	<i>M</i> > 3		<i>M</i> ≤ 3		<i>M</i> > 3		<i>M</i> ≤ 3	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Affective commitment	62	94	4	6	14	54	12	46
Instrumental commitment	14	21	52	79	3	12	23	88
Normative commitment	21	32	45	68	4	15	22	85

**Notes:** Obs1:  $M > 3$  represents a positive answer to commitment perception; Obs2:  $M \leq 3$  represents a negative answer to commitment perception

**Source:** Made by the authors

**Table VII.**  
Dimensions of organizational commitment (Group A × Group B)

affectively committed (from 94 to 54 percent). However, it is interesting to highlight that 54 percent responders of the group who have the intention to leave demonstrate to be affectively committed. This analysis corroborates the affirmation that there are other variables, beyond that, which influences in turnover intention.

In the same way, it is possible to find that there was a difference between the percent of individuals with normative commitment between the two groups (32-15 percent). Even the instrumental commitment is less present in the second group, although there is not any significant correlation identified between the variables: leaving intention and instrumental commitment.

It is relevant to highlight the correlation between the normative and affective commitment and turnover intention, although both are negatively associated to leaving intention, they present different consequences. Allen and Meyer (1990) suggested that the effects of normative commitment would have a shorter duration than the ones which come from affective commitment (time for paying the debts).

These results corroborate several studies which suggest that organizational commitment and turnover intention are negatively correlated (Meyer and Allen, 1991; Bastos, 1993; Griffeth *et al.*, 2000; Thatcher *et al.*, 2003; Phillips and Connell, 2003; Carayon *et al.*, 2006).

The correlation between job satisfaction and turnover intention in various research works has been inverse and significant (Mobley, 1992; Tett and Meyer, 1993; Hellman, 1997; Du *et al.*, 2006). The same was identified in research works with IT professionals, specifically (Gaylard *et al.*, 2005; Joseph *et al.*, 2007).

The results in this study corroborate with these findings, since the correlation between general job satisfaction and turnover intention is inverse and significant (0.355\*\*).

As cited before, in this study, the multidimensional vision of job satisfaction was adopted, with the intent of relating each aspect of the construct with the turnover intention, as well as its intensity. It is possible to verify this correlation among each of these aspects with turnover intention in results as shown in Table VIII.

The five dimensions of job satisfaction are related with the turnover intention in a negative way, but intensity is very different. The correlation among the dimensions satisfaction with the colleagues and satisfaction with the bosses and turnover intention were significant ( $r = -0.092$  and  $r = -0.101$ , respectively), that is, the results tend to indicate that these types of satisfaction are not related to the intention of leaving the organization.

Correlation between turnover intention and demographic factors: it was verified that if there is any correlation among the demographic variables (age, gender, marital status, schooling, time in service, acting area and seniority level in occupied function) and the turnover intention in the sample, as said before, it does not emerge in literature unique standards about these correlations.

The results indicate that there exists only one negative correlation between age and intention to leave ( $-0,158^*$ ) which is significant though weak. This finding suggests that

Variables	1	2	3	4	5
1. Satisfaction with the colleagues					
2. Satisfaction with salary	0.094				
3. Satisfaction with the bosses	0.336 **	0.100			
4. Satisfaction with the nature of the job	0.370**	0.071	0.298**		
5. Satisfaction with the promotions	0.103	0.625**	0.251**	0.220**	
6. Turnover intention	-0.092	-0.324**	-0.101	-0.242**	-0.312**

**Note:** \*\*Significant at the 0.01 level

**Source:** Made by the authors

**Table VIII.**  
Correlation among dimensions of job satisfaction and turnover intention

older employees tend to have a less intention to leave the organization. According to Mobley (1992), younger employees can have more job opportunities to beginner level and small familiar responsibilities, turning, then, the professional mobility easier.

It is valid to highlight the homogeneity of some demographic data. The place that was used for this research has existed only for 13 years, wherein the possible interval is short and there are no great variations as compared to enterprises that are 100 years old.

The reasons which influence the intention of employee to stay in the researched organization, with support of the open question, which contained a question made in the opposite way to the general objective of this research, this is, the responders might write in few words the reasons that led them to remain in the organization. The responders were separated in two groups made from the result of the variable turnover intention. The Group A was made by those who do not have intention to leave and the Group B by those who demonstrate a strong intention to leave. The responders who obtained an average between these values were not considered for the content analysis. The creation of these two groups had, as objective, to identify the reasons which lead the responders to stay in organization and compare the difference that exists between Group A (intention to stay) and the Group B (intention to leave).

The answers of these two groups were separately submitted to the content analysis with the technique thematic category. In total 214 units of registry were generated. Group A (with no intention to leave) generated 164 units of registry that generated 31 themes and eight categories, only eight participants of this universe did not answer this question. Group B (with intention to leave) generated 50 units of registry, 14 themes, and 7 categories, only 4 responders of this universe leave this question unanswered (Table IX).

It is worth noticing that many themes did not fit in the generated categories, as to Group A and Group B. For this reason, a category denominated "others" was opted for creating each group, which included several speeches. The percentage of these categories in both groups was significant (Group A – 23 percent and Group B – 26 percent), surpassing the percentage of the most cited category.

## 5. Considerations

The aim of this study was to investigate how far the organizational commitment and job satisfaction influence rotative intention. Trying to find some answers to the question about the reason for talent losses, question present in organizations, independent of the sector of actuation.

The literature affirms that the turnover of the employees may and must be managed and monitored in a way to find appropriate levels and its consequences should be minimized through efficient solutions (Phillips and Connell, 2003). When an IT professional leaves the organization, it cannot be considered as only a one less employee in the project. Normally he/she takes with her/himself special skills, tacit knowledge and the understanding of some

Thematic category	Frequency Group A (%)	Frequency Group B (%)
Learning	18	12
Activity	15	10
Work environment	15	14
Lack of alternatives	–	14
People	10	10
Commitment	7	–
Remuneration	6	14
Professional challenges	6	–
Others	23	26

**Source:** Made by the authors

**Table IX.**  
Comparison frequency  
Group A vs Group B

specific business or of an information system in particular. With the intention to contribute to management of talents, the finding of this study suggest the presence of two extremes: on one hand, 15 percent of the total of researched responders have a strong wish to leave the organization, while on the other hand, 38 percent have will to leave, and 47 percent of the sample are the neutral.

The results of the present research suggest that six variables are correlated negatively with turnover intention, but with different intensities. They are “organizational commitment,” “affective and normative dimensions,” “job satisfaction,” “the dimension satisfaction with the salary,” “dimension satisfaction with the promotions” and “dimension satisfaction with the nature of the job,” whereas among demographic variables, only the age is negatively correlated with the intention to leave.

Two dimensions of the organizational commitment were the ones that presented a bigger negative correlation with the turnover intention in the entire study, which is even bigger than the ones of job satisfaction. The affective commitment was the most significant ( $-0.462^{**}$ ) followed by the normative commitment ( $-0.325^{**}$ ).

The multiple regression realized among the three dimensions of organizational commitment and turnover intention even elaborates these findings more. It evidences that, for this group of responders, the affective and normative dimensions together explain 25.2 percent of the variability of the rotative intention. It means that it can be considered that these two are the most impacting dimensions in the intention to leave.

The affective commitment is significant in 85 percent of responders in the studied enterprise; the instrumental, however, is present in only 20 percent of responders, which, according these authors, indicates a small turnover intention; thus, it is not characterized as a problem.

The normative bonds, although demonstrate to be present in only 25 percent of participants, however, are negatively correlated with the intention to leave; that is why deserve special attention of institution managers. The findings suggest that employees did not demonstrate to have the intention of staying in the enterprise due to a moral obligation sense to it. They seem to be not incorporating the values and organizational rules to the point where they have certain behavior only because they believe that it is a right thing to do. One of the possible interpretations is to infer that the employees are able to “leave the enterprise in hand” if they notice that they will have personal advantages in other organization.

The qualitative part of this research confirms the presence of three approaches of commitment between Group A (no intention to leave), however same is not the case with Group B (with intention to leave). This is another clue of the existence of the correlation between this variable and the intention to leave the organization.

As said earlier, three dimensions of job satisfaction evidenced a negative correlation with turnover intention. Two of them evidenced a negative correlation with the turnover intention in an intense way: job satisfaction ( $-0.324^{**}$ ) and promotion ( $-0.312^{**}$ ) that are strongly correlated with each other ( $0.625^{**}$ ), since both are about remuneration. The third dimension of job satisfaction which negatively influences the intention to leave is the satisfaction with the nature of the job ( $-0.242^{**}$ ).

The multiple regression realized among the five dimensions of job satisfaction and turnover intention still elaborates the findings more, evidencing that for this group of responders, the dimensions satisfaction with the nature of the job and with salary together explain 15.3 percent variability of the turnover intention. It means that it can be considered that these two dimensions are the ones that have more impact on the intention to leave.

The multiple regression realized with all remaining variables together (satisfaction with the salary, with the nature of the job, age, affective and normative commitment) revealed that only three variables explain 30.2 percent variability of turnover intention. They are affective commitment, satisfaction with the salary, and normative commitment, representing the order of intensity, respectively.

This finding evidences the importance of these two constructs in the wish of employees to leave. There also exist other variables that maybe identified as the ones in the content analysis that represent rest of the 69.8 percent.

The answers of the open question submitted to the content analysis enabled the identification of other variables which influenced the remaining individuals. Beyond mentioned in quantitative part (activity, people, remuneration and commitment), they were identified also by the groups (A and B) the opportunity of learning and the work environment, this is, even who think about leaving consider it a good work environment and a place that enables the learning.

These identified variables require further studies, however, they already are a good source of information to help the management in the retention of talents, as well as they can be used as a base for other studies about the intention to leave for professionals of the area, since all these variables are present in research works regarding the turnover intention of IT professionals (Joseph *et al.*, 2007; Thatcher *et al.*, 2003).

The theme “employees’ turnover in IT,” as said before, is very complex. It is necessary to enlarge this study here in Brazil so that to we can have more clarification about this topic and it will even help to the creation of a turnover model adapted to the Brazilian reality.

As suggested, future research works must be realized to analyze the demographic variables in attitudes and behaviors of IT professionals, since there are no conclusive studies about this subject. Research works of longitudinal nature would be interesting to correlate data of turnover intention with the effective turnover, as well research works in other IT enterprises to verify if the results found here are similar to the results found in other organization. In an exploratory phase, few qualitative research works were found which talked about this subject, maybe because of the peculiarity of the theme. However, the usage of this approach to identify the variables which influence the retention of a specific group of individuals may work as a guide to elaborate a questionnaire.

Some limitations were identified during this research as follows: the locus chosen for the case study was T.E.C, so it would not be possible to generalize this research to other enterprises and institutes of IT; only the technical professionals in T.E.C were chosen as the population that acts directly in the final area of the enterprise, that is, IT professionals who do not execute management functions. It means that it cannot be generalized to all professionals who act in IT enterprises or to managers; a limitation which was determinant in method choose of collecting is due to the fact of one of the researchers be part of the Human Capital of Institute, which impossible that other methods be used, for example, interviews about the theme turnover intention. Probably, any employee would feel comfortable in talking about such delicate subjects with someone in Human Resource Department of the enterprises where he/she works. This limitation was reinforced by the participants of the pre-test.

#### Note

1. Translator’s note: “celetista” is an adjective in Portuguese language, to describe persons who work under CLT laws of work.

#### References

- Abbad, G. and Torres, C.V. (2002), “Regressão Múltipla stepwise e hierárquica em Psicologia Organizacional: aplicações, problemas e soluções”, *Estudos de Psicologia*, Vol. 7, Special edition, pp. 19-29.
- Agapito, P.R., Polizzi Filho, A. and Siqueira, M.M.M. (2015), “Bem-estar no trabalho e percepção de sucesso na carreira como antecedentes de intenção de rotatividade”, *Revista de Administração Mackenzie*, Vol. 16 No. 6, pp. 71-93.



- Allen, N.J. and Meyer, J.P. (1990), "The measurement and antecedents of affective, continuance and normative commitment to the organization", *Journal of Occupational Psychology*, Vol. 63 No. 1, pp. 1-18, doi: 10.1111/j.2044-8325.1990.tb00506.x.
- Almeida, B.C. and Paula, S.L. (2015), "Política de Esporte e Lazer: a Elaboração de um Instrumento de Avaliação", *Revista de Administração da UFSM*, Vol. 8 No. 2, pp. 249-266.
- Baotham, S., Hongkhuntod, W. and Rattanajun, S. (2010), "The effects of job satisfaction and organizational commitment on voluntary turnover intentions of Thai Employees in the new university", *Review of Business Research*, Vol. 10 No. 1, pp. 73-82.
- Bardin, L. (2008), *Análise de conteúdo*, Editora, Lisboa, p. 70.
- Bastos, A.V.B. (1993), "Comprometimento Organizacional: um balanço dos resultados e desafios que cercam essa tradição de pesquisa", *Revista de Administração de Empresas*, Vol. 33 No. 3, pp. 52-64, doi: 10.1590/S0034-75901993000300005.
- Bastos, A.V.B., Brandão, M.G.A. and Pinho, A.P.M. (1997), "Comprometimento Organizacional: uma análise do conceito expresso por servidores universitários no cotidiano de trabalho", *Revista de Administração Contemporânea*, Vol. 1 No. 2, pp. 97-120, doi: 10.1590/S1415-65551997000200006.
- Bastos, A.V.B., Siqueira, M.M.M., Medeiros, C.A.F. and Menezes, I.G. (2008), "Comprometimento Organizacional", in Siqueira, M.M.M. (Ed.), Chapter 4, *Medidas do Comportamento Organizacional*, Bookman, Porto Alegre, pp. 54-72.
- Burguess, S., Lane, S. and Stevens, L. (2001), "Churning dynamics: an analysis of hires and separations at the employer level", *Labour Economics*, Vol. 8 No. 1, pp. 1-14.
- Campos, C.A. and Malik, A.M. (2008), "Satisfação no trabalho e rotatividade dos médicos do programa de saúde da família", *Revista de Administração Pública*, Vol. 42 No. 2, pp. 347-368.
- Carayon, P., Schoepke, J., Hoonakker, P.L.T., Haims, M.C. and Brunette, M. (2006), "Evaluating causes and consequences of turnover intention among IT workers: the development of a questionnaire survey", *Behaviour & Information Technology*, Vol. 25 No. 5, pp. 381-397, doi: 10.1080/01449290500102144.
- Cardoso, A. and Lage, T. (2007), *As Normas e os Fatos*, FGV, Rio de Janeiro.
- Chang, W.A., Wang, Y. and Huang, T. (2013), "Work designed-related antecedents of turnover intention: a multilevel approach", *Human Resource Management*, Vol. 52 No. 1, pp. 1-26.
- Cooper, D.R. and Schindler, P.S. (2003), *Métodos de Pesquisa em Administração*, Bookman, Porto Alegre.
- Corseuil, C.H., Foguel, M., Gonzaga, G. and Ribeiro, E. (2013), "Youth labor market in Brazil through the lens of the flow approach", 41o Encontro Nacional de Economia, Anpec, Foz do Iguaçu.
- Dalton, D.R. and Todor, W.D. (1979), "Turnover turned over: an expanded and positive perspective", *Academy of Management Review*, Vol. 4 No. 2, pp. 225-235.
- Du, J.J., Zhou, J., Lui, C.E. and Picken, D. (2006), "Exploring turnover intention of construction managers in China", *Journal of Construction Research*, Vol. 7 Nos 1-2, pp. 191-205.
- Fernandes, E.S., Salles, M.A.S.D. and Ramos Filho, A.C. (2013), "A fila anda: um estudo sobre o turnover na consultoria de TI", Simpósio de Administração da Produção, Logística e Operações Internacionais, SIMPOI, São Paulo.
- Ferreira, M.L.C.B. and Siqueira, M.M.M. (2005), "Antecedentes de intenção de rotatividade: Estudo de um modelo psicossocial", *Organizações em Contexto*, Vol. 1 No. 2, pp. 47-67.
- Gaertner, S. (1999), "Structural determinants of job satisfaction and organizational commitment in turnover models", *Human Resource Management Review*, Vol. 9 No. 4, pp. 479-493.
- Gaylard, M., Sutherland, M. and Viedge, C. (2005), "The factors perceived to influence the retention of information technology workers", *South African Journal of Business Management*, Vol. 36 No. 3, pp. 87-97.
- Godoy, A.S. (2007), "Entendendo a pesquisa científica", in Hanashiro, D.M.M., Texeira, M.L.M. and Zaccarelli, L.M. (Eds), *Gestão do Fator Humano*, Saraiva, São Paulo, pp. 359-376.

- Griffeth, R.W., Hom, P.W. and Gaertner, S. (2000), "A meta-analysis of antecedents and correlates of employee turnover: update, moderator tests and research implications for the next millennium", *Journal of Management*, Vol. 26 No. 3, pp. 463-488.
- Hellman, C.M. (1997), "Job satisfaction and intent to leave", *The Journal of Social Psychology*, Vol. 137 No. 6, pp. 677-689.
- Iverson, R.D. (1999), "An event history analysis of employee turnover: the case of hospital employees in Australia", *Human Resource Management Review*, Vol. 9 No. 4, pp. 397-418.
- Jaros, S.J., Jermier, J.M., Koehler, J.W. and Sincich, T. (1993), "Effects of continuance affective and moral commitment on the withdrawal process: an evaluation of eight structural models", *Academy of Management Journal*, Vol. 36 No. 5, pp. 952-995.
- Joseph, D., Ng, K., Koh, C. and Ang, S. (2007), "Turnover of information technology professionals: a narrative review, meta-analytic structural equation modeling, and model development", *MIS Quarterly*, Vol. 31 No. 3, pp. 547-577.
- Lee, T.W. and Maurer, S.D. (1997), "The retention of knowledge workers with the unfolding model of voluntary turnover", *Human Resource Management Review*, Vol. 7 No. 3, pp. 247-275.
- Lee, T.W. and Mowday, R.T. (1987), "Voluntary leaving an organization: an empirical investigation of Steers and Mowday's model of turnover", *Academy of Management Journal*, Vol. 30 No. 4, pp. 721-743.
- Levin, J. and Fox, J.A. (2004), *Estatística para ciências humanas*, Pearson Prentice Hall, São Paulo.
- Medeiros, C.A.F. and Enders, W.T. (1998), "Validação do Modelo de Conceitualização de Três Componentes do Comprometimento Organizacional", *Revista de Administração Contemporânea*, Vol. 2 No. 3, pp. 68-87.
- Medeiros, C.A.F., Albuquerque, L.G., Siqueira, M. and Marques, G.M. (2002), "Comprometimento Organizacional: o estado da arte da pesquisa no Brasil", *Encontro Nacional de pós-graduação em Administração, Anpad, Salvador*.
- Medeiros, C.A.F., Albuquerque, L.G., Siqueira, M. and Marques, G.M. (2003), "Comprometimento Organizacional: o estado da arte da pesquisa no Brasil", *Revista de Administração Contemporânea*, Vol. 7 No. 4, pp. 187-209, doi: 10.1016/S1053-4822(99)00027-3.
- Menezes, I.G. and Bastos, A.B. (2010), "Propriedades psicométricas da escala de intenções comportamentais de permanência na organização (EICPO)", *Estudos e Pesquisas em Psicologia*, Vol. 10 No. 3, pp. 800-817.
- Meyer, J.P. and Allen, N.J. (1991), "A three-component conceptualization of organizational commitment", *Human Resource Management Review*, Vol. 1 No. 1, pp. 61-89, doi: 10.1016/1053-4822(91)90011-Z.
- Meyer, J.P., Allen, N.J. and Smith, C.A. (1993), "Commitment to organizations and occupations: extension and test of a three-component conceptualization", *Journal of Applied Psychology*, Vol. 78 No. 4, pp. 538-551.
- Mobley, H.M. (1992), *Turnover: causas, consequências e controle*, Ortiz, Porto Alegre.
- Mowday, R. (1984), "Strategies for adapting to high rates of employee turnover", *Human Resource Management*, Vol. 23 No. 4, pp. 365-380, doi: 10.1002/hrm.3930230404.
- O'Higgins, N. (2012), "This time it's different? Youth labor markets during 'the great recession'", IZA Discussion Paper No. 6434, Bonn.
- Oliveira, J.A., Lucena, L.M., Torres, E.F. and Lima, C.F.O. (2007), "Comprometimento sob a perspectiva dos alunos do curso de administração à distância da UFRN", *I Encontro de Administração da Informação, EnADI, Florianópolis*.
- Paula, S.L. and Mendonça, J.R. (2014), "A construção de uma impressão socialmente responsável: um estudo em Instituições de Ensino Superior a partir da Comunicação Organizacional", *Revista de Negócios*, Vol. 19 No. 1, pp. 44-69, doi: 10.7867/1980-431.2014v19n1p44\_69.
- Phillips, J.J. and Connell, A.O. (2003), *Managing Employee Retention: A Strategic Accountability Approach*, Butterworth-Heinemann, Elsevier, Chelsea.
- Pinto, R. and Gonzaga, G. (2014), *Monitoring of Labor Regulation and Turnover in Brazil*, Mimeo, Rio de Janeiro.

- Rego, A., Cunha, M.P. and Souto, S. (2005), "Espiritualidade nas organizações e empenhamento organizacional: um estudo empírico", *Área Científica de Gestão*, Vol. 1 No. 6, pp. 1-23.
- Robbins, S.P. (2005), "Comportamento organizacional", Pearson Prentice Hall, São Paulo.
- Rodrigues, A.C.A. and Bastos, A.V.B. (2010), "Problemas Conceituais e Empíricos na Pesquisa sobre Comprometimento Organizacional: uma Análise Crítica do Modelo Tridimensional de J. Meyer e N. Allen", *Revista Psicologia: Organizações e Trabalho*, Vol. 10 No. 2, pp. 129-144.
- Rouse, P.D. (2001), "Voluntary turnover related to information technology professionals: a review of rational and instinctual models", *The International Journal of Organizational Analysis*, Vol. 9 No. 3, pp. 281-290, doi: 10.1108/eb028937.
- Silva, M.C.S., Paula, S.L., Oliveira, L.M.B. and Regis, H.P. (2013), "Uma articulação entre a estrutura da rede de suporte e as ideias compartilhadas sobre responsabilidade social empresarial na rede lidera", *Gestão & Regionalidade*, Vol. 29 No. 87, pp. 4-18, doi: 10.13037/gr.vol29n87.1938.
- Siqueira, M.M.M. (2001), "Comprometimento Organizacional afetivo, calculativo e normativo: evidências a cerca da validade discriminante de três medidas brasileiras", *In Encontro Nacional de pós-graduação em Administração, ANPAD, Campinas*.
- Siqueira, M.M.M. (2008), *Medidas do Comportamento Organizacional: ferramentas de diagnóstico e de gestão*, Artmed, Porto Alegre.
- Siqueira, M.M.M. and Gomide Junior, S. (2004), "Vínculos do Indivíduo com o trabalho e com a Organização", in Zanelli, J.C., Borges-Andrade, J.E. and Bastos, A.V.B. (Eds), *Psicologia, organizações e trabalho no Brasil*, Artmed, Porto Alegre, pp. 134-149.
- Soldi, R.M. and Zanelli, J.C. (2006), "Comprometimento organizacional de trabalhadores terceirizados e efetivos: um estudo comparativo em uma empresa de telefonia", *XXX Encontro Nacional de Pesquisa em Administração, ANPAD, Salvador*.
- Spector, P. (1997), *Job Satisfaction. Application, Assessment, Causes and Consequences*, Sage Publications, London.
- Staw, B.M. (1980), "Consequences of turnover", *Journal of Occupational Behaviour*, Vol. 1 No. 4, pp. 253-273.
- Stewart, R., Volpone, S., Avery, D. and McKay, P. (2011), "You support effects of diversity and ethical climate perceptions on turnover intentions", *Journal of Business Ethics*, Vol. 99 No. 3, pp. 453-465, doi: 10.1007/s10551-010-0663-2.
- Tett, R.P. and Meyer, J.P. (1993), "Job satisfaction, organizational commitment, turnover intention and turnover: path analyses based on meta-analytic findings", *Personnel Psychology*, Vol. 46 No. 2, pp. 259-293, doi: 10.1111/j.1744-6570.1993.tb00874.x.
- Thatcher, J.B., Stepina, L.P. and Boyle, R.J. (2003), "Turnover of information technology workers: examining empirically the influence of attitudes, job characteristics and external markets", *Journal of Management Information System*, Vol. 19 No. 3, pp. 231-261, doi: 10.1080/07421222.2002.11045736.
- Winterton, J.A. (2004), "Conceptual model of labour turnover and retention", *Toulouse Business School Human Resource Development International*, Vol. 7 No. 3, pp. 371-390.
- Yucel, I. (2012), "Examining the relationship among job satisfaction, organizational commitment, and turnover intention: an empirical study", *International Journal of Business Management*, Vol. 7 No. 20, pp. 44-57, doi: 10.5539/ijbm.v7n20p44.

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