Organizational Commitment and Job Satisfaction: What Are the Potential Relationships?

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Abstract

This study compared two different structural models regarding the direct or mediation role satisfaction has in the prediction of commitment bond, in the context of a public and traditional Brazilian organization, the Military Police. A quantitative and qualitative combination of methods was used to measure relationships between variables and to contextualize the results found from 10,052 surveyed workers. We conducted interviews with six high command officers and a focus group comprised of seven members from the three highest organizational levels. Content analysis and structural equation modeling (SEM) were used in the analysis process. Evidence was found that satisfaction with relationships is an antecedent of commitment, which mediates its relationships with other variables, such as work and personal characteristics. Understanding the organization's characteristics and the use of a substantial sample of its employees simultaneously allowed for testing complex structural models and investigating a labor segment that has been neglected by commitment research.

Key words: organizational commitment; job satisfaction; antecedents; human resources.

Introduction

In a chronological and evolutionary review of 30 years of research on the development of strategic human resources management, Lengnick-Hall, Lengnick-Hall, Andrade and Drake (2009) affirm that strategic human resources management has maintained its power, in terms of being recognized as an important field of continuing study. Due to its ongoing development, these authors argue that the challenges consist of filling in the knowledge gaps that have been previously identified, as well as discovering new paths within dynamic and constantly-changing environments.

Historically, Wright, Snell and Dyer (2005) remember that HR has received special consideration as an internal function, linked to internal activities and processes. However, particularly in the USA, a major part of the literature in this field shows that managers are free to develop and design HR strategies. Even though this premise has been questioned, there is evidence that the scope of organizational actors who may influence HR practices and policies responsible for the relationships established between workers and their organizations has been increasing considerably.

In the field of organizational behavior, studies of bonds with the organization, especially those of commitment, have been given special attention due to their role in enabling a broader knowledge of the relationships established between workers and their organizations. From these organizational actors' points of view, commitment is expected due to its impact on desirable variables, such as performance and organizational citizenship behavior, among others. Starting from this premise, a number of studies have been conducted in recent decades in order to assess the variables that contribute to the development of this bond, and the consequences expected with its establishment.

The consolidation of this field of study emphasized the concept of commitment as being more desired and expected than formerly predominant constructs within organizational behavior research, such as motivation and satisfaction. The main cause for this reorientation of studies was the verification of a higher commitment bond stability as compared to workers' satisfaction and motivation, which tend to suffer more immediate impacts from context variables (Bastos, 1993). Researchers agree that workers' motivation can be partially explained by organizational behavior, which is, therefore, a consequence of the bond. On the other hand, there is no consensus on the relationship between satisfaction and commitment, although most authors consider satisfaction and commitment as being linked (Mathieu & Zajac, 1990; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Despite the predominance of this idea, researchers report on inquiries that regard satisfaction as a consequence of commitment, an antecedent, or even as a mediator variable of its relationship with other antecedents (Falkenburg & Schyns, 2007).

In view of this gap, still present in the field's research agenda, this study aims to compare structural models that differ from one another with respect to the role of satisfaction as consequent or antecedent (whether direct or as a mediator of other variables) of organizational commitment.

Another observed gap is the lack of studies directed at understanding the context in which the investigated relationships occur, hindering application of the knowledge produced (Rousseau & Fried, 2001). Bayo-Moriones and Larraza-Kintana (2009) agree about this limitation, pointing out that contextual characteristics interfere in the relationship between personnel management practices and organizational commitment. For this reason, this study also focused on the presentation and discussion of context with respect to the results achieved.

This research covered the Military Police, a public and traditional Brazilian organization. After nearly 189 years of existence, the Military Police possesses longstanding cultural characteristics, such as values of hierarchy and discipline (Rosa & Brito, 2010), which distinguish its organizational identity and guide police officers' attitudes and behavior. In this sense, this study also meets the aim of investigating a segment that differs from those traditionally covered in the field of organizational behavior, generally directed toward industry and services, focused on the private sector (Costa & Bastos, 2009). Thus, this study also aims to understand the potential impacts of this context on the relationships established among the investigated variables.

Organizational Commitment

The research agenda on organizational commitment currently reflects the level of complexity attained by the studies in domestic and international scenarios in recent decades, allowing certain trends to be identified:

1. Deliberation on conceptual issues of the bond, which still overlaps with other constructs, as a result of the phenomenon Osigweh (1989, p. 581) calls "concept stretching". Even though this theme has been present in commitment studies since early publications, recent studies have tried to systemize the most critical points and propose solutions (Bastos, Pinho, Aguiar, & Menezes, 2011; Cohen, 2007; Rodrigues & Bastos, 2010; Solinger, Olffen, & Roe, 2008);

2. Study of its antecedents and consequences that, despite assuming a traditional role of the field, is a topic for productive analyses, especially due to the ongoing lack of consensus, the changes in the world of work, and the necessity of maintaining a continuous review of the variables related to commitment (Meyer *et al.*, 2002);

3. Investigation of the focal points of commitment that, also traditional and equally relevant, encompass objects outside the organization, such as unions, careers, and customers, and inside the organization, such as occupation, work, staff, and change, among others (Bastos, 1994; Fink, 1992). One of the prime virtues of this line is to maintain the discussion about the existence of diffuse bonds and different work relationships within the context of organizations;

4. Reflections on commitment management, a theme that has been underlying the analysis of antecedents and consequences throughout the years. New research studies aim to minimize the gaps related to the impact and effectiveness of organizational and personnel management practices on workers' commitment levels (Bastos, Rodrigues, Moscon, Silva, & Pinho, no prelo; Leite & Albuquerque, 2009a, 2009b, 2011; Wright & Kehoe, 2009).

The most recent studies in Brazil on conceptual issues of commitment have been conducted for the purpose of distinguishing it from other organizational bonds (Rodrigues & Bastos, 2010; Silva & Bastos, 2010), arguing that the research has reached a state of maturity in which the profusion of approaches causes more harm than good; thus, it is indispensable to select the most appropriate approaches to the construct (Klein, Molloy, & Cooper, 2009).

A brief review of meta-analyses published in the field (Cohen, 1992; Mathieu & Zajac, 1990; Meyer *et al.*, 2002) identifies some consensus on predictive variables of commitment, information that is particularly interesting to researchers and managers concerned with bond management. Among all the antecedents investigated, the most frequently studied and most significant in predicting commitment are those related to work experiences, such as work characteristics (scope, challenge, and variety of tasks), perceptions of justice, organizational support, and relationships established (interdependence of assignments, communication with the leader, participative leadership, among others).

Variables related to conflict and role ambiguity also present strong but negative relationships with commitment. Balassiano and Salles (2012) reflected on the stronger effects of perception of justice than of perception of equity in the levels of affective organizational commitment, arguing that the first is guided by an individual approach, versus the collective approach of the second. This result supports the research of individual aspects and personal characteristics (individual differences, values, demographic variables), which have been investigated less frequently; more tenuous relationships with commitment are observed here. An explanation by Meyer and Allen (1997) for this fact is that personal characteristics could be considered distal antecedents of commitment; *i.e.*, they do not directly relate to the bond, but are mediated by proximal antecedents, such as work experiences, role states, and psychological contracts.

Morrow (2011) also highlights the emphasis on the management of affective commitment, since this base presents the most significant relationships with desirable behaviors. The meta-analyses considered also confirm the predicted relationship between commitment and satisfaction (general, with pay, with colleagues, with work, and with supervision). Moreover, studies by Green, Wu, Whitten and Medlin (2006) point out the impact strategic human resources management has upon individual performance, organizational commitment, and satisfaction levels for the work of 269 human resources professionals, who were vertically aligned with organizational mission and goals, and horizontally aligned with other organizational functions.

Despite the fact that a relationship between commitment and satisfaction could be observed, the understanding that commitment and satisfaction are related is not a consensus, nor is the concept that satisfaction is the antecedent of commitment, or its consequence. Starting from the opinion of Mathieu and Zajac (1990), who presuppose that the two constructs are related due to the lack of clarity on the impact of satisfaction on commitment, this study aimed to analyze the relationships between antecedent variables and commitment, highlighting the role of satisfaction in the two main prediction models tested in this study.

Job Satisfaction

In the international literature as well as in the Brazilian literature, significant attention has been paid to the relationship between organizational commitment and job satisfaction.

A brief review of the international literature on job satisfaction indicates the emergence of similar perspectives: Smith, Kendall and Huh (1969) consider it to be the degree to which an employee, by means of an affective orientation or a positive attitude, achieves a positive result in relation to his/her job, in general, or to specific personal aspects. Locke (1970) defends it as a pleasant or positive emotional state arising from the assessment of the job itself and from related experiences. Cook, Hepworth, Wall and Warr (1981) and Cranny, Smith and Stone (1992) consider it to be an affective response arising from the analysis of actual results of an individual job, compared to those expected, desired, and required. Lambert, Hogan and Barton (2002) refer to it as an individual subjective feeling, which reflects whether the needs of a person are being met, or not, by a given assignment/job. These authors are corroborated by Griffin, Hogan, Lambert, Tucker-Gail and Baker (2010) who evoke Spector (1996/2003), essentially defining job satisfaction as how much people like their jobs. Yoon and Thye (2002) consider that it can be construed as a sort of positive emotion that directs the organization.

Distinguishing affective commitment from job satisfaction, Kooij, Jansen, Dikkers and Lange (2009) affirm that while the former refers to positive feelings toward the organization, in general, the latter refers to positive feelings more specifically related to the job or position.

To analyze the relationship between work satisfaction and achievement, Zhang and Zheng (2009) test affective commitment as the mediator between satisfaction and performance at work, and tradition (cultural values) as the mediator between professional satisfaction and affective commitment. They raise the hypothesis that affective organizational commitment intermediates the relationship between job satisfaction and professional performance, and examine how cultural values can moderate the relationship between job satisfaction and affective commitment, since both constructs reflect people's attitudes, which are generally fashioned by cultural values.

Moynihan and Pandey (2007) examine the effects of individual attributes, job characteristics, and organizational variables in three aspects, which are considered to be job motivation dimensions: job satisfaction, job involvement, and organizational commitment. Brooke, Russell and Price (1988) and commitment attitudes can be considered different constructs.

In the Brazilian literature, the job satisfaction construct is deemed complex and difficult to define, partly due to the fact that it is understood as a subjective state that can vary from person to person, from

circumstance to circumstance, throughout the years for the same person, and is potentially subject to the influence of internal and external forces of the immediate work environment. Martinez and Paraguay (2003) indicate that the most frequent conceptual processes refer to job satisfaction as synonymous with motivation, as n attitude, or as a positive emotional state. The authors consider that there is still a lack of consenus on concepts, and on theories or theoretical models of this construct.

Borges-Andrade and Pilati (2001) emphasize that the study of commitment holds advantages over the study of satisfaction, due to the fluctuations of the latter construct, and emphasize the failure, in research from recent decades, of satisfaction as a predictive variable. The authors corroborate Bastos' perspective (1993), who argues that the study of commitment has been surpassing the study of satisfaction, by being a more stable measure, which can be a predictive factor of various human results in the work context.

For the development of this research, four studies on prison systems call our attention due to their similarity of contexts: in prison staffs, Griffin *et al.* (2010) verified that several administrative policies have the potential to influence the issues of satisfaction, stress, and job involvement, and advocate that, by identifying and implementing policies that work toward promoting positive results, administrators can have an influence over negative organizational results such as burnout and turnover; in a private maximum security prison, Lambert and Hogan (2009) show that the results of the analysis carried out with prison officials, by and large, in relation to their age, indicate that job satisfaction and organizational commitment directly influence the intention of leaving; Garland, McCarty and Zhao (2009), in a prison staff, emphasize that the influence of predictive factors on job satisfaction and organizational commitment vary among the groups; Lambert and Paoline (2008) argue that there are three important professional attitudes identified among prison guards: job stress, job satisfaction, and organizational commitment. Such attitudes have significant effects on these prison guards' intentions and behavior.

From the reviewed literature one can infer that job satisfaction holds a prominent position, mostly because of the assumptions prepared by managers and researchers, with respect to its decisive role in the worker behavior considered relevant to the organizations. In this study we tried to broaden the understanding of its role in the models explaining organizational commitment.

Research Models and Hypotheses

Hair, Black, Babin, Anderson and Tatham (2009) state that the mediating effect of a variable is confirmed when the variable intervenes and facilitates the relationship between two related constructs. For our investigation of the possible mediation role of the satisfaction variable (as an antecedent of organizational commitment), and its role as a consequent, two principal models were tested.

The first model is referred to as the Consequent Model (CM) and it is based on the assumption that satisfaction with rewards and interpersonal relations arises from commitment (Figure 1).

Figure 1. Model 1 (Consequent Model - CM).
Source: Authors.

The second model is referred to as the Antecedent Mediation Model (AMM), which is based on the assumption that satisfaction (with rewards and interpersonal relations) mediates the relationship between commitment and its antecedents (creativity in the work context, realistic initial expectations, variety of tasks, scope of work, and tension). This model is set forth in Figure 2.
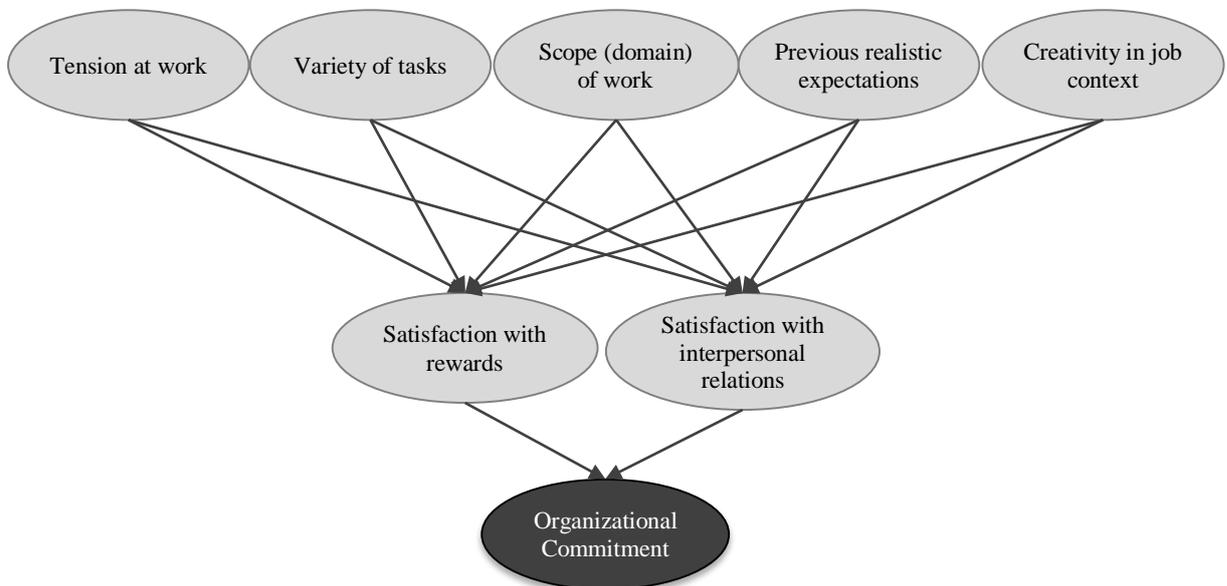

Figure 2. Model 2 (Antecedent Mediation Model - AMM).
Source: Authors.

To test satisfaction's mediation role, following the recommendations in Hair *et al.* (2009), it is also necessary to evaluate the direct relationship of the variables with commitment. Thus, two models were additionally tested: one that considers the direct relationship of satisfaction (with rewards and interpersonal relations) with organizational commitment and another that tests the direct relationship of other antecedents with commitment (Figure 3).
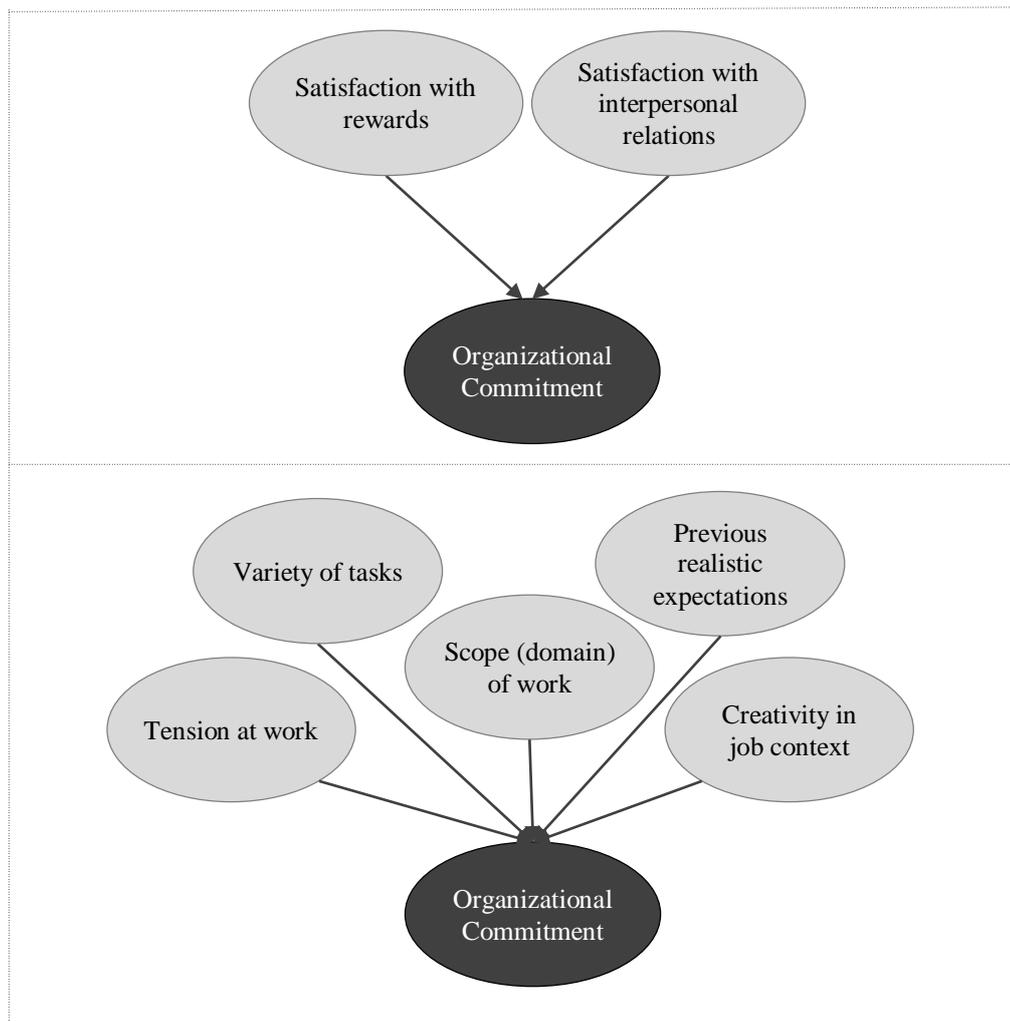
Figure 3. Model 2.1 (Satisfaction and Commitment - SC) and Model 2.2 (Antecedents and Commitment - AC).
Source: Authors.

The first three hypotheses of this study address the direct relationship between the antecedent variables investigated and organizational commitment. Meyer and Allen's review (1997) provides support for the assumption that variables related to work and to context influence organizational commitment. Thus:

H1: The three dimensions of job characteristics (tension at work, variety of tasks, and scope of work) predict organizational commitment, with tension at work having a negative coefficient and the others positive coefficients.

H2: Creativity in the work context positively affects organizational commitment.

Studies indicate that the fulfillment of psychological contracts is related to organizational commitment (Rodrigues, Gondim, Bastos, & Sakamoto, 2013; Sturges *et al.*, 2005). Thus, it is expected that the more realistic the initial expectations, the greater the possibility of fulfillment and the greater the impact on organizational commitment.

H3: Realistic initial expectations positively affect organizational commitment.

The meta-analyses conducted by Mathieu and Zajac (1990) and Meyer, Stanley, Herscovitch and Topolnytsky (2002) show the relationship between satisfaction and commitment. These studies found

higher scores for the relationship between satisfaction with colleagues and organizational commitment than that between satisfaction with pay and commitment.

H4: The dimensions of satisfaction investigated in this study positively affect organizational commitment. Satisfaction with interpersonal relationships has greater impact on commitment than satisfaction with rewards.

Riketta and Van Dick (2009) argue that, despite the number of studies concerned with the logical order of the relationship between commitment and satisfaction, the results are still inconsistent. Thus there is no consensus in the literature about the order of this relationship. In this study, we assume that, although there are significant relationships between the variables investigated and commitment, these relationships are facilitated by satisfaction variables, which clarifies their mediation role. This leads to the last two hypotheses of this study:

H5: The model that considers satisfaction as antecedent presents better fit than the model that considers satisfaction as consequent.

H6: The impact of antecedents on commitment is reduced when satisfaction is included, indicating the latter assumes a mediating role in the relationship between commitment and its antecedents.

Methodological Aspects of the Research

To carry out this study, a combination of quantitative and qualitative methodologies were employed; the former aiming to assess the relationships between the variables measured, and the latter serving to contextualize and aid comprehension of the results found.

In this study, the context being investigated is quite specific. The Military Police of Bahia (PMBA) is a public and traditional institution. We observe that at this institution, after nearly 189 years of existence, the organization's role has changed. Historically, the defender of Imperial power in Brazil, its present-day goal is to ensure public safety (Silva & Vieira, 2008). Despite this central change, it has longstanding cultural characteristics, such as the values of tradition, hierarchy, and discipline. Monjardet (2003) argued that the military institution is quite similar to the classical organization called scientific management, with a well-defined chain of command and top-down decision-making. The bureaucratic structure and the management model similar to that of the Army maintains the proper organization for fighting a war, when it should be adapted to civil actions and public protection (Silva & Vieira, 2008). The organization of work in this model, in addition to jeopardizing the efficiency of the organization and public opinion in its regard, affects the health of the police officers, and the way they perceive their work (Silva & Vieira, 2008). The specific nature of the military police explains the qualitative step in this study. Although this step is not directly linked to our central goal, it helps toward understanding the impact context has on the results.

Qualitative step – I

The qualitative analysis served to contextualize and aid comprehension of the results found, through interviews, a focus group, observations and questionnaires. It was subdivided into two parts: the period before quantitative data collection, in which six in-depth interviews were carried out to understand the context prior to preparation of the questionnaire; and the period afterwards, in which the focus group technique was adopted to facilitate understanding of the results. Oliveira and Freitas (2006) characterize it as a data collection technique that, when used concomitantly with other methods, can help clarify the results obtained and explain the phenomenon behind such results. Morgan (1997) considers it to be an intermediate technique between participatory observation and the open interview, without the replacement of one technique by the other. The focus group makes explicit use of group

interaction, with respect to a theme, in a limited time period. In this group, the goal is to elicit the plurality of ideas, which enables the researcher to broaden the understanding of the answers obtained.

Therefore, the interviews and the focus group were aimed at revealing the culture that permeates the social fabric of this corporation, in order to better understand the map of relationships established between commitment and the remaining variables. Thus, organizational culture serves as a background for interpreting quantitative results.

The participants interviewed were five officers from the organization's high command and the head of the Human Resources Department. The interview time was used freely and without interruption, with an average duration of two hours and thirty minutes. The focus group was comprised of 7 members from the highest levels: general command, internal affairs bureau, board of directors, coordinators, and chief officers.

Content analysis was the strategy chosen in this step, considered by Bardin (2010) as a set of techniques for analyzing the conversations held during the processes of data collection, and which uses systematic and objective procedures to describe the content of this communication. The techniques comprising this set are based on categorical analysis, which considers the totality of each message communicated and rates it according to the presence or absence of the significant and constitutive elements of the message. In this study, we limit the presentation of qualitative data to the categories related to the results of the quantitative analyses.

Quantitative step – II

The quantitative step was characterized by a cross-sectional study.

Data collection instrument

The questionnaire was composed of structured questions that were evaluated on a seven-point Likert scale ranging from **fully disagree** to **fully agree**. A description of the measures used and the main information derived from the psychometric analyses conducted to assess the quality of scales are shown next. All the confirmatory analyses presented satisfactory adjustments, loading factors between 0.38 and 0.86, and alpha coefficients between 0.65 and 0.83. Hair *et al.* (2009) attest that loading factors between 0.30 and 0.40 are acceptable when the sample is over 350 cases. The theoretical relevance of the items and the sample size supported the maintenance of the items.

. **Organizational commitment**: the study used six items extracted from the scale by Mowday, Porter and Steers (1982), among them "I feel happy for having chosen to work for this organization, as compared to other organizations that I considered at the time of my hiring". The alpha coefficient estimate of reliability was 0.76.

. **Satisfaction**: of the nine items initially used, constructed and tested by Chang (2001), six were used in the analyses, four from the Satisfaction with interpersonal relations dimension (α=.76) and two from the Satisfaction with reward dimension (α=.83). Examples of these items are: "I am satisfied with the level of respect and fairness that I receive from my direct superior", "I am satisfied with the people with whom I have relationships and contact at work" and "I am satisfied with the pay and benefits I receive".

. **Job characteristics**: items adapted from scales validated by Rizzo, House and Lirtzman (1970) and Sims, Szilagyi and Keller (1976) were used; these items were tested in the Brazilian context by Bastos (1994), in addition to the items constructed by Chang (2001). Three dimensions were extracted: Variety of tasks (α=.79), which aims to assess to what extent the work performed is varied and challenging, with three items ("I have the opportunity to learn new things in order to carry out my assignments"); Tension at work (α=.67), which aims to measure overload of assignments and role conflicts, with three items ("My job requires that I work very intensively"); and Job scope (α=.65), which aims to assess individual's

comprehension and mastery of the content of his/her job, with two items ("Superiors keep me informed on important issues related to performing my job and about changes in the organization").

.   **Creativity in the work context**: aims to assess how encouraging and receptive the organization is toward new ideas, as well as how much it tolerates potential related errors. It comprises four items constructed by Chang (2001), with a Cronbach's Alpha of .79 ("The organization I work for is receptive to creative ideas").

.   **Realistic initial expectations**: intended to measure accuracy level, as assessed by the worker, of the information received about job type and responsibilities when he/she was being hired. This study used three items constructed by Bastos (1994), with internal consistency reliability of 0.70 ("At the time I accepted the job, the organization presented what it expected from me with respect to the type of work I should perform").

Participants

10,052 employees of the Bahia Military Police participated in this research. As data collection strategies, this study used a questionnaire available on their intranet, for professionals in the capital, and print questionnaires for professionals in outlying areas of the state, in order to assure access in all regions.

The majority of the sample is composed of professionals who are male (81.5%), young adults, aged 26 to 35 (52.1%), married (57.6%), having completed at most a high school level of education (67.9%). With respect to occupational variables, most of the participants belong to the police officer category (82.4%), are stationed in operational posts in the capital (22%) or in outlying areas (56.5%), with salaries ranging from 2.5 to 5.0 times minimum wage (77.2%), and length of service between 6 and 20 years (76.5%).

Data analysis procedure

This study adopted Structural Equation Modeling (SEM), using AMOS 16.0 and SPSS 13.0 software. It also adopted the strategy of competitive models, in order to compare two possible models of relationships between the study variables, and identify the model that provided the best solution.

The study adopted four categories of adjustment indices proposed by Ullman (2007): (a) comparative fit indices (NFI, CFI, RMSEA), which attempt to compare the estimated model with alternative models, situating it in a continuum that begins in a perfectly justified model (all variables correlated) and ends in a null model (all variables are uncorrelated); (b) indices of proportion of variance explained (GFI, AGFI), which consider the amount of variance of the sample matrix explained by the population's estimated matrix; (c) parsimonious model indices (PGFI, AIC), which indicate what model is the best in a set of competitive models, based on the number of estimated parameters and the number of non-redundant correlations from the data matrix; (d) root mean residual indices (RMR), which evaluate the amplitude between the model estimated parameters and the data observed in the sample correlation matrix.

In the present study, we performed cross-validation of all the models tested. For this task, the database was divided into four independent subsamples. The first two, both with 2,012 cases, were used for validation of measurement models: after testing with the first subsample, evaluation of modification indices and addition of new parameters, the modified models were tested with the second subsample. The third subsample, with 4,018 cases, was used to test structural models, and the last subsample, with 2,010 cases, served for cross-validation of these models.

Presentation and Discussion of Results

Table 1 presents the indices of adjustment of measurement models for each latent variable. After the test with the first sample, we added parameters considering the modification indices and the pertinent theory. Then, the modified models were validated with an independent second sample.

Table 1

Fit Indices of Measurement Models

Variables	χ^2		NFI		RMSEA		GFI		RMR	
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Commitment	240.8	39.5	.92	.98	.11	.05	.96	.99	.19	.07
Satisfaction with rewards and with interpersonal relationships	185.1	60.8	.95	.98	.10	.06	.97	.99	.17	.11
Creativity in the work context	103.8	.41	.96	1.0	.16	.00	.97	1.0	.12	.01
Job Characteristics (Scope of work, Variety of tasks, and Tension)	111.7	-	.97	-	.05	-	.99	-	.14	-

Note. Realistic initial expectations is an identified model. Hence, it was not tested. There were no changes to the job characteristics model. Source: Research data.

Table 2 presents the descriptive statistics and bivariate correlation among the constructs included in the models. Moderate and significant correlations among the study variables are observed.

Table 2

Descriptive Statistics and Correlations among the Variables Studied

	Average	SD	1	2	3	4	5	6	7
1. Commitment	4.4	1.3	1						
2. Creativity in the work context	3.1	1.4	.24*	1					
3. Realistic initial expectations	4.0	1.5	.42*	.28*	1				
4. Scope of work	3.1	1.7	.29*	.49*	.38*	1			
5. Variety of tasks	3.6	1.7	.44*	.42*	.34*	.40*	1		
6. Tension	4.0	1.5	-.03*	-.04*	-.02**	-.00	-.15*	1	
7. Satisfaction with rewards	2.6	1.7	.18*	.43*	.27*	.34*	.33*	-.13*	1
8. Satisfaction with interpersonal relationships	4.3	1.5	.55*	.31*	.35*	.34*	.52*	-.07*	.23*

Note. Source: Research data.
*$p<.001$, ** $p<.05$.

Given the significant correlations between the variables, parameters between antecedents were included in the specification of the structural models. Each model was tested twice: first, with the third subsample and then with the fourth subsample, to validate the model fit.

In the test with the third subsample (S3), NFI, which generally presents lower results, was satisfactory in M2-AMM, but was lower than expected in M1-CM (Table 3). The other comparative fit

indices (CFI and RMSEA) support the analysis with respect to M2-AMM presenting good adjustments in relation to other hypothetical models, which does not apply to M1-CM. GFI and AGFI indicate that the matrices estimated by M2-AMM significantly explain the matrix variance of collected data, however it does not apply for M1-CM. RMR, which lacks a defined cut-off point, presented a higher value for M1-CM as compared to M2-AMM.

Table 3

Fit Indices of Tested Models

	M1 - CM		M2 - AMM		M2.1 - SC		M2.2 - AC	
	S3	S4	S3	S4	S3	S4	S3	S4
df	303		293		48		171	
χ^2	5218.19*	2652.32*	3836.49*	2022.61*	1368.82*	669.35*	2262.01*	1153.75*
NFI	.86	.86	.90	.89	.91	.91	.91	.91
CFI	.87	.87	.90	.90	.91	.92	.92	.92
RMSEA	.06	.06	.06	.05	.08	.08	.06	.05
GFI	.89	.90	.93	.93	.94	.95	.95	.95
AGFI	.87	.87	.91	.90	.91	.91	.93	.93
RMR	.29	.28	.24	.24	.27	.26	.23	.23
PGFI	.72	.72	.72	.72	.58	.58	.70	.70
AIC	5368.19	2801.32	4006.49	2192.61	1428.82	729.35	2382.09	1273.75
	(62.42)	(32.57)	(47.13)	(25.79)				

Note. Source: Research data.
*$p<.001$

When comparing nested models, parsimony indices are particularly important. The PGFI is the same for the two models. However, the examination of proportional AIC, which is based on the ratio between the value found and the number of parameters (between parentheses), indicates a higher parsimony for M2-AMM.

The test with the fourth independent subsample (S4) supports the model adjustment. Although the NFI stayed close to the target for the M2-AMM, a decline was expected due to the smaller sample size in the face of more complex models. CFI and RMSEA support satisfactory adjustment. These results offer support for our fifth hypothesis, that is, the model in which satisfaction is considered an antecedent (M2-AMM) is better adjusted in comparison to the model conceiving it as a consequence (M1-CM). M2-AMM presents good adjustments and can be confirmed.

Since satisfaction assumes the role of antecedent of commitment, we proceeded with the analysis to test the role of mediator. The complementary models, M2.1 and M2.2, also showed good fit indices (Table 3). Afterwards, the coefficients found for each of the models were interpreted and discussed in addition to the considerations arising from qualitative analysis results.

The inspection of coefficients of M2.1-SC and M2.2-AC (Table 4) reveals that, among the antecedent variables studied, only satisfaction with interpersonal relationships (.62 and .60), realistic initial expectations (.40 and .38), and variety of tasks (.47 and .48) presented direct and substantial impact on organizational commitment. Thus, the first hypothesis of this study was partially confirmed, since scope of work showed no significant relationship with commitment, and tension presented low and positive coefficients. The second hypothesis was rejected, as creativity did not have significant impact on commitment. The third hypothesis was fully confirmed, since realistic initial expectations have shown a high impact on commitment.

Table 4

Structural Coefficients for Tested Models

Structural Coefficients	M2 AMM		M2.1 SC		M2.2 AC	
	S3	S4	S3	S4	S3	S4
Explained Variances						
Commitment	.51	.48	.38	.36	.42	.39
Satisfaction with reward	.34	.34	-	-	-	-
Satisfaction with interpersonal relationships	.45	.44	-	-	-	-
Parameters						
Satisfaction with reward → Commitment	-.08*	-.06	-.01	.02	-	-
Satisfaction with interpersonal relationships → Commitment	.40*	.41*	.62*	.60*	-	-
Creativity → Satisfaction with rewards	.35*	.44*	-	-	-	-
Creativity → Satisfaction with interpersonal relationships	.02	-.02	-	-	-	-
Creativity → Commitment	-.05	.02	-	-	-.06	-.01
Realistic initial expectations → Satisfaction with rewards	.04	.07**	-	-	-	-
Realistic initial expectations → Satisfaction with interp. relationships	.15*	.12*	-	-	-	-
Realistic initial expectations → Commitment	.34*	.34*	-	-	.40*	.38*
Scope (domain) of work → Satisfaction with rewards	.18*	.04	-	-	-	-
Scope (domain) of work → Satisfaction with interp. relationships	.16*	.21*	-	-	-	-
Scope (domain) of work → Commitment	-.13*	-.10	-	-	-.05	-.02
Variety of tasks → Satisfaction with rewards	.07**	.09**	-	-	-	-
Variety of tasks → Satisfaction with interpersonal relations	.46*	.46*	-	-	-	-
Variety of tasks → Commitment	.29*	.19*	-	-	.47*	.38*
Tension → Satisfaction with rewards	-.15*	-.14*	-	-	-	-
Tension → Satisfaction with interpersonal relationships	-.04**	-.01	-	-	-	-
Tension → Commitment	.06*	.05	-	-	.06**	.06**

Note. Source: Research data.
*$p<.001$, ** $p<.05$

When comparing the models with respect to the impact satisfaction has on commitment, we observed that the impact of satisfaction with interpersonal relationships is lower when tested as a mediator, although it maintains high coefficients (.40 and .41). Satisfaction with rewards, in turn, did not present an impact on the commitment. It has a little larger impact when placed as a mediator, but still rather negative and not substantial (-.08 and -.06). Even though it contradicts prior studies (Mathieu & Zajac, 1990; Meyer *et al.*, 2002), this result is compatible with the notion that material rewards have more impact on instrumental relationships (Rodrigues & Bastos, 2010). Therefore, the fourth hypothesis was partially confirmed.

We also noted that, among the antecedent variables studied, only creativity in the work context presented a substantial impact on satisfaction with rewards (.35 and .44), a behavior different from that observed with respect to interpersonal relationships (.02 and -.02) and to commitment (-.05 and .02). It is possible that the incentive for new ideas is linked to employee performance assessment and compensation, which is not necessarily a stimulus for knowledge sharing and reliable relationships among colleagues. On the contrary, a context of competitive work, which is less favorable to the strengthening of interpersonal relationships, can be, at the same time, favorable to new ideas encouraged by rewards.

Analysis of the qualitative data makes it possible to identify that, in the context of the Bahia Military Police, the space for creativity is considered to be small due to the speed and variety of occurrences that, although in an initial moment might call for creative solutions, are treated pursuant to rules and pre-established standards. This formalization should not necessarily affect interpersonal relationships, when individuals act jointly in all operations. In general, interpersonal relationships are considered to be excellent, with reciprocal identification and lots of respect and consideration, among officials and police officers.

Also regarding the qualitative analysis, with respect to rewards, an examination of the results indicates that salary is a trigger for claim movements, when groups internally compete and argue with one another by comparing positions and salaries. The existence of a ten-year cycle in the occurrence of claim movements has been observed, in which problems accumulate. Everybody is interested in salaries, and these claims tend to be collective, because, individually, they are not relevant. This situation is more severe in the state capital, where there are more employees than in outlying areas, and, perhaps because of this, some members of the organization provide informal security services to supplement their salaries. These problems are spreading due to the State's lack of attention to its employees, due to a lack of dialogue between commanders and the officers under their command and, for the strikes in these ten-year cycles, the responses were not always appropriate.

It is also worth mentioning the result observed for tension at work, which does not have a substantial impact on satisfaction with interpersonal relationships and on commitment, although it presents low negative coefficients (-.15 and -.14) as to satisfaction with rewards. Thus, it is the only variable that has weak co-variances with the other antecedents. Contradicting the literature on commitment antecedents (Cohen, 1992; Mathieu & Zajac, 1990; Meyer *et al.*, 2002), tension at work did not present a negative impact on the relationship with the organization.

Upon this result, attention is turned to the possibility of bias in the sample, which is composed of a group of workers whose activity has particular characteristics that affect the relevant variable. In the focus group, one of the issues discussed was related to how much standardization and routinization will contribute to the reduction of conflicts among assignments. Although these aspects present negative impacts when different worker populations are investigated, in the case of an organization whose culture is linked to discipline, compliance with rules and standards does not constitute a point of dissatisfaction. Another discussion outlined is the overload of activities, which is frequently minimized by the operations carried out in groups.

The comparison of the coefficients found in the models M2-AMM and M2-AC (Table 4) made it possible to evaluate the role of satisfaction as mediator. Satisfaction with personal relationships mediates the relationships of three out of the five antecedents of commitment investigated: realistic initial expectations (.15 and .12), variety of tasks (.46 and .46), and scope of work (.16 and .21). The direct impact of realistic initial expectations on commitment (.40 and .38) was reduced to .34 in the two subsamples, when satisfaction with interpersonal relationships was included in the model. Likewise, the coefficients of variety of tasks in direct relation to commitment (.47 and .38) had a substantial reduction (.29 and .19) with the inclusion of satisfaction with interpersonal relationships. Thus, these results support the mediation hypothesis of satisfaction for these two variables, although it is a partial mediation. In the case of scope (domain) of work, there was no direct relationship with commitment in the two models (AMM-M2 and M2-AC), which means that satisfaction with interpersonal relationships fully mediates its relationship with commitment.

It is interesting to note that realistic initial expectations can be classified as a personal characteristic, or as a variable of individual differences, due to the fact that they are strongly connected with individuals' subjective aspects. On the other hand, the variety of tasks and scope (domain) of work, although measured from an individual's level of perception, are connected with work experiences or characteristics at the organization. Therefore, these results provide evidence for partially confirming our final hypothesis. Satisfaction with personal relationships indeed mediates the relationship between commitment and certain antecedents, but satisfaction with rewards does not play this role, since it does not establish a significant impact on commitment.

Final Considerations

This study primarily aimed to compare different models with respect to the role of satisfaction, considering the lack of consensus in the field regarding the relationship established with organizational commitment. For this purpose, the study included in the models antecedent variables linked to individual, context, and work characteristics. The results obtained corroborate the role of satisfaction at work as an antecedent rather than a consequence of organizational commitment. Moreover, the results indicated that satisfaction with rewards does not predict organizational commitment. On the other hand, satisfaction with interpersonal relationships is an antecedent of commitment; thus, it primarily mediates its relationship with some variables of work, such as variety of tasks and scope of work, however it plays a smaller role in the mediation of the individual variable investigated, which presented a direct impact on organizational commitment.

The combination of quantitative analysis with qualitative analysis enabled an improved understanding of the context and of its influence on the verified relationships. Understanding the characteristics of the Bahia Military Police and the use of a significant sample of workers from the organization enabled, at the same time, the testing of complex structural models and the investigation of a segment of workers neglected by commitment studies.

One of the main limitations of the study is due to the fact that, despite its extent, the sample is limited to one organization, which reduces the opportunities to generalize the results. The organization under study possesses specific characteristics that certainly have effects on the relationships between the variables investigated (public organization, with an emphasis on values tied to hierarchy and discipline, in a context directly linked to risk and to the impact of the work on society). On the other hand, the possibility of testing the proposed models in a specific context fills a gap generated by an area characterized by extensive studies, with databases formed by workers from various organizations.

In addition, with respect to the profusion of dimensions of satisfaction at work, only two dimensions were investigated. In view of these conditions, we would propose, in future studies, the inclusion of other types of satisfaction at work, such as satisfaction with autonomy, status, assignment, supervision, and policies, in order to integrate the understanding of the relationships between this construct and organizational commitment.

It would be advisable for these and other studies to be tested in samples from different organizations. This is a recommendation urging more reflection on empirical and conceptual issues that limit the research on organizational commitment and job satisfaction; thus, studies purposed to surpass this limit shall continue to be encouraged.

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