

Development and validation of a questionnaire on normative organizational commitment: A pilot study in Mexican workers

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Título: Desarrollo y validación de un cuestionario sobre compromiso organizacional normativo: Un estudio piloto en trabajadores Mexicanos.

Resumen: Se desarrolló un cuestionario de medición del compromiso en su dimensión normativa, fundamentada en la reciprocidad y responsabilidad como valor hacia el trabajo en donde se estableció un vínculo hacia la organización basado en la lealtad de los trabajadores. Un banco inicial de 30 ítems, construidos y revisados con criterios rigurosos, se aplicaron a una muestra de 298 trabajadores de una cadena de tiendas departamentales (168 Mujeres, 56.4%; 130 Hombres), con edades comprendidas entre 18 y 65 años ($M = 32.5$ años, $DT = 9.6$ y escolaridad Bachillerato (199, 66.8%). La antigüedad en la empresa abarca entre 1 y 34 años ($M = 4.4$ años, $DT = 5.7$). Mediante análisis factorial exploratorio se identificaron dos factores con 28 ítems que explican el 45.1 % de varianza: el primero denominado lealtad-reciprocidad; y el segundo cumplimiento-responsabilidad. El análisis de fiabilidad indicó una adecuada consistencia interna, $\alpha = .925$ y $.912$. La validez concurrente se comprobó mediante correlación de Pearson con el Cuestionario de Compromiso Organizacional y Escala de Valores Hacia el Trabajo. Los resultados obtenidos indicaron que las dimensiones del Cuestionario de Compromiso Organizacional Normativo puede ser una opción para valorar este constructo.

Palabras clave: Compromiso normativo; estudio instrumental; análisis factorial exploratorio; responsabilidad; compromiso moral; lealtad; reciprocidad.

Abstract: A questionnaire for measuring commitment in its normative dimension, based on reciprocity and responsibility as value to the work where a link to the organization based on loyalty of workers set was developed. An initial 30 item bank, built and reviewed with rigorous criteria were applied to a sample of 298 employees in a department store chain (168 women, 56.4%, 130 men), aged between 18 and 65 ($M = 32.5$, $SD = 9.6$) years and schooling Baccalaureate (199, 67.8%). The seniority ranging from 1 to 34 years ($M = 4.4$ years, $SD = 5.7$). Using exploratory factor analysis with 28 items two factors explaining 45.1% of variance was identified: the first known loyalty-reciprocity; and the second compliance-responsibility. Reliability analysis indicated adequate internal consistency, $\alpha = .88$. Concurrent validity was assessed by Pearson correlation with Organizational Commitment Questionnaire and Scale Values to Work. The results indicated that the dimensions of the Organizational Commitment Questionnaire Standards may be an option to assess this construct.

Key words: Normative commitment; instrumental study; exploratory factor analysis; responsibility; moral commitment; loyalty; reciprocity.

Introduction

The construct of the organizational commitment has its origin in the decade of the 40's; Jaros (2013) mentions that when some sociologists (Becker, 1956, Kanter, 1968, Kelman 1958, Tolman, 1943) define commitment in "moral-virtuous" terms. Also when the value system is highlighted to establish an organizational commitment (Becker, 1960) and moral implication as identification with the authority structure, with norms, values and organizational objectives (Etzioni, 1961). For Mowday, Porter & Steers (1982) it is an "individual identification and involvement with a particular organization". Thus, compromised individuals may exhibit certain behaviors, not for their personal benefit, but because they believe that it is the "right" thing and moral (Wiener, 1982).

In their development, different definitions, meanings, interpretations (Cooper-Hakin & Viswesvaran, 2005, Meyer, Stanley, Herscovitch & Topolnysky, 2002) and models have been proposed (Cohen, 2007, Meyer & Allen, 1991). Dominating the three-component model (MTC) described by Allen & Meyer (1990). Being more investigated, the commitment of affectivity and continuity (Bergman, 2006), while

normative commitment (NC) is the least studied component (Meyer, Stanley & Parfyonova, 2012).

Organizational commitment deals with three ways of studying normative engagement by relating it to (1) identifying employee values and norms with the organization, (2) *reciprocity* established in every relationship, and (3) duty and compliance related to values such as Responsibility, gratitude, righteousness and trust (Loyalty).

Identification of employee values and standards with the organization

According to Betanzos & Paz (2007) and Rodríguez-Loredo & Betanzos-Díaz (2011) several theoretical frameworks are observed in the study of normative commitment: Gouldner (1960) with his theory of reciprocity mentions that there is a moral norm that indicates that "must provide benefits to those who have benefited us" or at least "not to harm those who have benefited us." Kanter (1968) postulates the commitment of evaluative control centered on norms, values and convictions, establishing the willingness of employees to give their energy and loyalty to the organization. O'Reilly and Chatman (1986) talk about the development of a psychological bond as a process of identification or moral tie, based on three aspects of Kelman's taxonomy (1958); Conformity: Compliance to obtain favorable reactions from others or from a group and their adoption is carried out not necessarily by being in accordance with the

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rules, but by avoiding disapproval, being punished or rewarded (resulting in satisfaction by fulfillment). *Identification*: Acceptance of the influence of others, because you want to maintain the relationship with a group based on reciprocity. *Internalization*: Occurs when an individual accepts influence because it is congruent with their value system.

Meyer & Allen (1991) consider that the worker develops a strong sense of obligation to remain in his company because he considers that he is in debt, due to the opportunities and rewards provided (salary, promotions, training, etc). The employee can act "beyond his or her duty" and take initiatives beneficial to the organization, regardless of whether this conduct is evaluated or rewarded. In this dimension Meyer & Allen (1991) encompasses both a moral obligation and a sense of moral duty (Meyer & Herscovitch, 2001). Jaros, Jermier, Koehler, & Sincich (1993) define moral commitment as "the degree to which an individual is psychologically attached to an organization." They mention that it reflects the sense of duty, an obligation or vocation, to work in the organization, but not necessarily the emotional attachment and therefore is different from the affective commitment. Vardi & Wiener (1996) indicate that commitment is based on loyalty. Duty and loyalty are formed in the early years of socialization and show the belief of people that they have a moral obligation to show loyalty in social situations. Cohen (2007) considers that the normative dimension develops before entering the organization (it is prone to be compromised) reflects a situational attitude of individual differences and is defined as "a general moral obligation towards the organization." This distinction (prior and post-entry commitment) solves the high correlation between normative (pre-entry) engagement and affective commitment (later commitment), as high correlations are the result of early socialization (moral obligation) and experiences of work (psychological attachment).

González & Guillén (2008) starting from an Aristotelian philosophical scheme, consider the organizational commitment as a free individual decision based on a reflection that implies reason and thought. They distinguish a commitment belonging to the sphere of feelings and emotions (desires and impulses) better known as affective commitment; and a moral commitment based on a judgment of the established norms and the execution according to them as practice of the moral virtues. Compare the sense of duty with the moral virtue of "responsibility," or moral responsibility that people carry out by weighing ethical judgments.

Solinger, van Olffen & Roe (2008) consider organizational commitment (Meyer and Allen 1991) from the viewpoint of the Eagly & Chaiken model of attitudes (1993) where affective engagement is an attitude that reflects an emotional attachment to the organization as an objective (attitude towards objective) while the commitment of continuity and normative are attitudes that are directed to behavior results such as permanence and retirement which have different types of consequences for the behavior of workers in the organization and therefore cannot be considered as

components of the same attitudinal phenomenon. Meyer & Parfyonova (2010) indicate that rather than studying the components separately, it is necessary to study them depending on their strength and interrelation, so they propose it as a construct with two faces: one that refers to moral duty and the other to obligation for employee debt. Researches that work with engagement profiles report conflicting and limited results to reach generalizations (Somers, 2010).

Reciprocity

The rule of reciprocity also marks gratitude as a result of fulfilling obligations. It is indicated that when employees perceive that they have benefits from the organization, they create feelings of obligation that motivate to act and to value the company (Eisenberger, Ameli, Rexwinkel, Lynch & Rhoades, 2001). The studies suggest that this sense of obligation and the desire for reciprocity, create a relationship of exchange that promotes in the employee behaviors of effort, positive attitudes to work (Mowday et al. 1982; Settoon, Bennett & Liden, 1986) and feelings that increase commitment to the organization (Cook & Wall, 1980).

Loyalty

Mowday et al. (1982) mark as one of the aspects of commitment, the conduct of loyalty, which expresses the personal desire to remain and continue to be part of the company. Other researchers (O'Reilly & Chatman, 1986; Wiener, 1982) agree that loyalty involvement and behavior are either correlates or consequences of commitment but not constituent elements. Mathieu & Zajac (1990) mention that the commitment is constituted by two components and distinguish between an attitudinal, active, moral and affective component, related to the implication and identification with organizational values and goals, which indicates the affective and emotional relationship with the company; A second behavioral component, passive, cognitive and calculative, referring to the investments made by the employee. On the other hand Wiener (1982) mentions that normative commitment shows both employee-company reciprocity and subjective behavioral normative beliefs, product of the different processes of social influence that develop in the company. Mowday et al. (1982) mark as one of the aspects of commitment, the conduct of loyalty, which expresses the personal desire to remain and continue to be part of the company. Other researchers (O'Reilly & Chatman, 1986; Wiener, 1982) agree that loyalty involvement and behavior are either correlates or consequences of commitment but not constituent elements. Mathieu & Zajac (1990) mention that the commitment is constituted by two components and distinguish between an attitudinal, active, moral and affective component, related to the implication and identification with organizational values and goals, which indicates the affective and emotional relationship with the company; A second behavioral component, passive, cognitive and calculative, refer-

ring to the investments made by the employee. On the other hand Wiener (1982) mentions that normative commitment shows employee-company reciprocity and subjective behavioral normative beliefs, product of the different processes of social influence that develop in the company.

Tools used to measure the construct

To measure NC, Allen & Meyer (1990) developed a subscale of eight reactants that primarily measures employee loyalty. Subsequently (Meyer et al. 1993) review and modify the scale focusing mainly on the sense of obligation towards the organization and remains with six reagents, being the most used in research on CN. Culpepper (2000) makes modifications to the organizational commitment scale of 8 Allen & Meyer reagents (1990) to improve normative engagement, eliminating two reactants (18 and 24) that refer to loyalty standards unlike the other six Reactants that focus on the moral obligation to remain, this allows a better discrimination with affective commitment. Bergman (2006) also indicates the importance of the use of words as "feelings" that in the measurement of normative commitment tends to bias the responses towards the affective commitment and to show a high correlation. Arciniega & González (2012) analyze the structure of the questionnaire of Organizational commitment and examine the behavior of the normative scale aiming to improve their psychometric properties and find that the items ("this company deserves my loyalty" and "I feel that I owe much to this company") of the regulatory scale saturate consistently in different samples of the affective factor, recommending a reformulation of these reagents associated to feelings of obligation and behavior of the employee.

The literature contains recurrent criticisms of the normative commitment subscale. Some are related to having a high correlation between their affective and normative dimensions (Meyer et al., 1993; Wasti, 2005). In addition to considering the dilemma as to which version of the scales to use (Cohen, 2007), some researchers develop their work using the 8-item scale (Yao & Wang, 2006) while others use the revised 6-item scale (Cheng & Stockdale, 2003) and although there is no generalized perception to modify the subscales, a new scale would be welcome in the study of normative commitment (Arciniega & González, 2012, Gonzalez & Guillén, 2008, Meyer & Parfyonova, 2010).

The normative commitment presents two types of responses, a behavior of loyalty and responsible behavior (Betanzos & Paz, 2007). According to Jaros (2013) the concept of moral commitment must capture the dimensions of morality, not the obligatory ones. Highlighting the congruence with the values between the individual and the goals of the organization as it reflects a "moral vocation", the feeling that one is committed because it is morally right (Jaros et al., 1993). The mastery of the TCM model and NC concept has led to the abandonment of this line of research proposed by González and Guillén (2008). Molm (2010) says that Gould-

ner (1960) bases his theory on actions and obligations as reimbursement for benefits received, as a state of long-term debt. As a rule of reciprocity, it evokes correspondence to others based on their behavior, is not imposed but is latent and has a profound effect on the bonds of trust and solidarity. Thus the normative commitment is a manifestation of loyalty and reciprocity, linked to the ethical performance.

In Mexico, several investigations have been carried out on the commitment of the employees in the organizations in an effort to contribute to the theoretical and empirical development of them. Betanzos, Andrade & Paz (2006) performed a study on a sample of Mexican workers using the OCQ of Mowday et al. (1982) and the Organizational Commitment Questionnaire by Meyer et al. (1993), resulting in four dimensions: identification-implication, affective, continuity and normative commitment, determining that the application of both questionnaires improves the measurement of organizational commitment, thus confirming the multidimensionality of the construct and evidencing other forms of attachment that have not been fully developed or supported by new research to help clarify the construct.

Finally, we can say that the evidences of the antecedents of normative commitment are not only scarce, but also vague, and certainly more theoretical than empirical. These are mainly based on the process of socialization and acculturation of values, such as loyalty. Arciniega & González (2000) conceive values as cognitive representations of universal needs. Schwartz (1992) proposes a structure of four higher order values: self-aggrandizement, self-transcendence, openness to change and conservation. The first two are part of a bipolar dimension that refers to opposing motivation goals: one to enhance personal interests, even at the expense of others, and the other to transcend selfish concerns and promote the well-being of others. The other bipolar dimension group's two different objectives. One refers to the extent to which people are motivated to follow their own unique intellectual and emotional interests, while the other focuses on preserving the status quo and stability in relationships with individuals and institutions. The values can be expected to be related to the NC, because within the work are the result of the expression of needs of an individual in a socially accepted way. It would be logical to think that employees with high scores on values related to the well being of others would present greater normative commitment.

Therefore, the present research aims to: 1) develop a questionnaire on normative commitment based on moral vocation (loyalty and reciprocity) and 2) present the results of validation of the instrument.

Method

Participants

Instrumental study. For which people were surveyed from a chain of departmental stores, using quota sampling (Kerlinger & Lee, 2001). The response rate was 50.1%. The

staff is divided into two large groups *Sales Employees*; people directly involved with the sales process and with the daily dealings with customers. *Administrative employees*; direct sales support personnel, i.e. involved with the administration of the store.

Participated 298 employees (168 Women, 56.4%, 130 Men), aged 18-65 ($M = 32.5$ years old, $SD = 9.6$) and high school education (199, 66.8%). With tenure in the company between 1 and 34 years ($M = 4.4$ years, $SD = 5.7$) and in the position between 1 and 30 years ($M = 3.5$ years, $SD = 4.5$). 40% singles. 63.4% work in the sales area and 68.5% with a work schedule of ten or more hours, where 54.4% are women (Table 1).

Table 1. Characteristics of the people surveyed.

		Sample ($n = 298$) F (%)
Age (years)	$M (SD)$	32.5 (9.6)
Sex	Male	130 (43.6)
	Female	168 (56.4)
School grade	Elementary School	2 (0.7)
	Secondary School	49 (16.4)
	High School	199 (66.8)
	Undergraduate	48 (16.1)
Marital Status	Single	119 (39.9)
	Married/Common Law Divorced/Widowed	164 (45.0) 15 (5.0)
Number of children	$M (SD)$	1.4 (1.3)
Economic dependents	Without economic dependents	69 (23.2)
	1 to 2 dependents	147 (49.3)
	More than 2 dependents	82 (27.5)
Job field	Sales	189 (63.4)
	Administrative	109 (36.6)
Job Center	Puebla Centro	72 (24.2)
	Cuernavaca	111 (37.2)
	Angelopolis	115 (38.6)
Daily working hours	Less than 8 hours	94 (31.5)
	More than 8 hours	204 (68.5)
Tenure organization (years)	$M (SD)$	4.4 (5.7)
Tenure in current position (years)	$M (SD)$	3.5 (4.5)

Note. F frequency (%) percentage. M Arithmetic mean (SD) Standard deviation.

Administrative Staff: Security (21), Dressing Room (17), Administrative (16), Customer Service (11), Warehouse (11), Cashier (10), Supervisor (7), Gift wrap (5), Technicians (5), Maintenance (4) y Mechanics (2).

Instrument

In the annex, the questionnaire of normative-moral organizational commitment is presented, including the options of punctuation and the writing of the items. It was elaborated following the guidelines of Moreno, Martínez & Muñoz (2004) as choice of content to be evaluated, expression of the content in the item and construction of the appropriate response options. A bank of 30 items was written in an impersonal way, posing situations in which employees put their

beliefs into practice towards the organization, with a projective character where the worker evaluated his similarity with other employees under certain situations (i.e., He/She complies with the rules and policies so as not to be sanctioned by the company; it is an employee who does not harm the company because it is loyal to it. We used a Likert scale with 5 points ranging from 1 (It does not look anything like me) to 5 (It looks a lot like me).

Organizational commitment questionnaire by Meyer & Allen (1993). It measures organizational commitment in three dimensions: Affective (CA), which refers to the psychological linkage of the employee based on the desire to remain in the company. Continuity (CC), focuses on the material-instrumental link and the costs associated with leaving the company. Normative (NC), which expresses the feeling of obligation to remain in the organization. The version of 6 items per subscale was used. With a Likert scale of 7 points ranging from 1 (Strongly disagree) to 7 (Strongly agree). The analysis indicated that the 6 affective engagement reagents (i.e. This company has great personal significance to me) obtained adequate reliability, $\alpha = .849$. The normative commitment (i.e., this company deserves my loyalty) showed a reliability in the 6 items, $\alpha = .833$. Finally, the 6 replies of the continuity commitment (i.e., it would be very hard for me to leave my company, even if I wanted to do so) revealed a reliability of $\alpha = .774$.

Scale of values towards work (EVAT 30). Developed and validated to measure values towards work and based on Schwartz's universal theory; Initially composed of 30 items, which finally was conformed in 16 items after the psychometric work done in its validation (Arciniega & González, 2000). It is formed by four main values measured by 4 items: Openness to change (i.e., likes the challenges in their work, always prefers the new and unknown), valuing the degree to which people follow their own interests. Conservation (i.e., does not like to take risks, always opts for safer alternatives), focused on preserving the status quo and social stability. Self-aggrandizement (i.e. He/She seeks to excel and be successful in front of others) degree to which people increase their personal interests even at the expense of others and Self-transcendence (i.e. for Him/her loyalty to His/Her Company and / or work team is very important) degree in which the welfare of others is promoted. Use a Likert scale with 5 points of 1 (It does not look anything like me) to 5 (It looks a lot like me). For this work the conservation subscale was not considered, since it could present high correlation with the proposed questionnaire that nevertheless refers to different theoretical positions. The analysis indicated that the first component Auto transcendence consists of 4 items. The reliability of this scale was $\alpha = .780$. The second openness to Change with 4 items reported a reliability of $\alpha = .680$. The third Self-aggrandizement formed by 4 items showed a reliability of $\alpha = .711$. The fourth Conservation consisting of 4 items showed a reliability of $\alpha = .667$.

Procedure

Design and development of the instrument

The drafting of the item bank had as reference the revision of the literature regarding the construct (normative commitment). The qualitative evaluation was made based on the judgments issued by a group of experts (two experts in construction of scales and three familiar with the normative commitment construct). Five experts participated in the validation of the scale, which were given a table of specifications of the items where both the semantic definition of the construct and its components appeared. Regarding the classification of the items in the theoretical dimension of normative commitment, items not classified in the same dimension by at least 4 of the 5 judges were rejected and those where judges presented discrepancies in the assessment (Kendall concordance test).

Instrument pilot test

A pilot test was carried out with a sample of 30 workers. We used a Likert scale of 5 with points and 5 anchors ranging from 1 (It does not look anything like me) to 5 (It looks a lot like me). It was analyzed if the instructions were understood and if the items worked properly (analysis of technical quality of the items: intelligibility, homogeneity coefficient and quotient of variation).

Application of the Questionnaire

Authorization was requested from the Director of Human Resources, Deputy Director of Operations and Store Managers of the company in order to have access to personnel. There was access to three branches located in central Mexico, one in Cuernavaca and two in Puebla, with a total of 555 workers. A protocol was drawn up which included a cover letter and a questionnaire with all the variables. An expert psychologist was present during the application to resolve any questions of the participants. Staff were assembled by groups of 10 to 15 people in the training room of each work center where staff were explained the purpose of the research, the confidentiality of the information and their informed consent. Each participant was given a questionnaire and pencil; the time needed to answer the questionnaire was 20 minutes. Subsequently, the data was processed on a database.

Data analysis

The validation was done according to the "Editorial guide for the presentation of validation of tests in Social and Health Sciences". A reagent analysis was performed, determining the mean, standard deviation, asymmetry and kurtosis of each of the items on the scale. Then, the FACTOR.10 program

(Ferrando & Lorenzo-Seva, 2013) explored the structure of its components with an Exploratory Factor Analysis (EFA) to identify the underlying variables that explained the pattern of correlations observed between the items (Lloret-Segura, Ferreres-Traver, Hernández-Baeza & Tomás-Marco, 2014). Given that it was a Likert questionnaire, an EFA could have been performed using the maximum likelihood method; but if the variables are not distributed multi-normally, there is no guarantee that the estimation properties will be maintained. We chose a method of Ordinary Least Squares. Ferrando and Lorenzo-Seva (2014) mention that the Minimum Average Partial (MAP) method is the procedure that works best to determine the number of dimensions. Lloret-Segura et al. (2014) says that for the estimation of factors, the Unweighted Least Squares method is currently the most recommended. Lorenzo-Seva, and Ferrando, (2006) mentioned that the FACTOR program estimates the reliability of scores of the factors rotated by the formula $1 / (1 + SE^2)$ given by Mislevy & Bock (1990), where SE is the standard error of factor scores. To evaluate external validity, it was correlated with the Meyer & Allen scale (1993) that measures the three components of organizational commitment (affective, normative and continuity) and the scale of values toward EVAT 30 work (openness to change, self-transcendence and self-aggrandizement), using Spearman's parametric correlation coefficient.

Prior to the EFA, an analysis of the missing values showed 298 complete data records of the 300 that integrated the data file. In two cases a value was missing and removed from the analysis. Even so, the sample did not present a ceiling-soil effect.

Results

The data of the 298 employees, mostly women (54.4%), aged between 18 and 65, who perform functions in the area of sales (63.4%), are presented below.

Descriptive of the scale of normative-moral commitment

The descriptive statistics for each item (Table 2) show that the highest means correspond to the items belonging to the loyalty component. Specifically, item L27 is the one with the highest value ($M = 4.22$). However, the reciprocity component presents lower mean in general, with item R4 being the lowest score ($M = 2.11$). The variables present some degree of asymmetry, being asymmetric-negative in general, except for the items C7, Re15 and R19 belonging to the Compliance, Responsibility and Reciprocity components respectively, which indicates that the values tend to meet in the right part of the mean. As for kurtosis, there is no normal distribution in all cases, mainly in item L27 of the loyalty component, which reflects a significant shoring with a kurtosis of 3.644. Most authors recommend distributions with coefficients of asymmetry and kurtosis in the range (-2, 2) or

lower. The multivariate distribution of the data resulting from this treatment cannot be considered normal for both asymmetry (Mardia = 167.102, value = 8249.692, $p \leq 1.000$) and for targeting (Mardia = 984,233, value = 43,522, $p \leq .001$). Therefore, polychoric correlation matrixes were performed. On the other hand, the results of the Kaiser-Meyer-Olkin index (KMO = .911) and Bartlett's sphericity test, ($\chi^2(378) = 3634.2; p < .0001$) showed a good fit and identification of the data for their factorial analysis.

Table 2. Descriptive statistic of the proposed scale of Normative-Moral Commitment.

Item	Media	Standard deviation	Assymetry (.14)	Kurtosis (.28)
FULFILMENT				
C1	4.08	.778	-1.298	2.530
C2	4.15	.703	-1.271	2.858
C3	4.06	.939	-1.081	1.233
C4	3.97	.763	-.981	1.680
C5	4.12	.824	-1.233	2.061
C6	3.31	2.083	-.479	-1.094
C7	2.76	1.690	.030	-1.203
C8	3.38	1.274	-.534	-.278
RESPONSABILITY				
Re9	3.95	.875	-1.204	2.168
Re10	3.90	.906	-1.096	1.728
Re11	4.07	.921	-1.177	1.633
Re12	3.90	.967	-1.169	1.539
Re13	3.85	1.133	-.985	.729
Re14	3.38	1.450	-.478	-.563
Re15	2.81	2.112	.102	-1.330
RECIPROCITY				
R16	3.63	1.093	-.873	.579
R17	3.23	1.461	-.465	-.673
R18	3.61	.907	-.809	1.000
R19	2.11	1.547	.843	-.383
R20	3.55	1.668	-.694	-.542
R21	3.59	1.137	-.745	.260
R22	4.11	1.091	-1.403	1.818
R23	3.65	1.203	-.788	.248
LOYALTY				
L24	3.74	1.272	-.916	.330
L25	3.66	1.188	-.695	L25
L26	3.76	1.028	-.926	L26
L27	4.22	.671	-1.440	L27
L28	4.04	.893	-1.178	L28
L29	3.64	1.247	-.661	L29
L30	3.58	1.253	-.791	L30

Note. In parentheses, the typical error

The polychoric correlation matrix was obtained as the starting point to carry out the factorial analysis. The procedure chosen to determine the number of dimensions was MAP, since it guarantees the estimation of all matrix correlations and leads to plausible estimates in all of them even in small samples (Ferrando and Lorenzo-Seva, 2014). The results of the analysis suggested that 2 were the factors to be retained in the factor solution. Regarding the extraction of factors, the ULS method was chosen, since it allows to fac-

torize matrixes in adverse situations, even with few cases and many items, and without having to make distributional assumptions, which makes of it the most recommended method (Lloret-Segura et al., 2014). It also avoids the occurrence of Heywood cases, saturations greater than unity and negative error variance, more frequent with other estimation methods (Ferrando & Lorenzo-Seva, 2013). The Promin oblique rotation method was used since it tends to obtain a solution as simple as possible. The criterion used to consider a reagent within a factor was to present an estimated coefficient of factorial structure greater than .30 in that factor and not to present a greater or equal factor in another factor, so it was assigned to one whose structural coefficient was the highest and was asked to omit values less than .30 in the rotated matrix (Hair, Anderson, Tatham & Black, 1999).

Three general measures were used to evaluate the goodness of fit of the factorial model: (1) the cumulative percentage of common variance explained accounted for 45.1% of the total common variance, because of this, it can be considered correct the proportion of the common variance of the items collected in this two-factor solution; (2) the root mean square root of the residuals (RMCR) was 0.0577, a value slightly lower than 0.0584, the expected RMCR value for an acceptable model, Lorenzo-Seva, and Ferrando (2006) recommend using the Kelley criterion (1935) who used as the reference value the typical error of a correlation coefficient of zero in the population from which the data originates, and which is approximately $1/\sqrt{N}$; (3) observation of the distribution of standardized residuals showed an approximately normal distribution centered around a mean 0 (mean = -0.10), however, some extreme values in both tails of the distribution (smaller standardized residual = 2.33; higher standardized residual = 4.67) revealed some localized weak-fit zones in the solution. In this way, 28 items with the highest saturations were selected such that the 2 factors are constituted by 10, and 18 items respectively (Table 3).

The first component called *loyalty-reciprocity* explains 38.0% of the variance and is composed of 10 items with an average score of 25.4 and reliability of $\alpha = .925$. The reactants refer to the normative commitment based on loyalty and reciprocity, these are situations related to loyalty to the organization as a gratitude you for what you have received for the fulfillment of tasks attached to organizational policies. The second component explains the 7.1% of variance and is composed of 18 items with an average score of 39.7 and reliability of $\alpha = .913$. The reactants describe a normative commitment based on *compliance-responsibility* referring to work behaviors within the employee-organization linkage. (Table 3).

Table 3. Factorial analysis and reliability of the proposed scale of Normative-Moral Commitment.

Item	F1	F2	Communality
L25	.915		.895
R17	.881	-.310	.447
L24	.825		.515
L30	.794		.564
R16	.723		.401
L26	.593		.582
R21	.576		.493
R18	.556		.452
L29	.513		.460
C1	.420		.435
C5		.699	.548
C6		.698	.272
C4		.695	.439
Re13		.634	.427
Re14		.629	.260
Re12		.614	.439
Re10		.603	.408
R19	-.410	.576	.132
R22		.592	.523
R20		.578	.311
C8		.549	.280
R23		.507	.264
C3		.506	.338
Re11		.498	.530
C2		.478	.506
Re9		.416	.356
C7		.409	.118
Re15		.306	.214
Variance Explained (%)	38.0	7.1	45.1
Reliability	.925	.913	

Note. F1 Loyalty-Reciprocity. F2 Compliance-Liability.

Table 4. Spearman correlations among the factors of the proposed scale. Normative-Moral Commitment, Organizational Commitment (Meyer & Allen, 1993) and EVAT 30 (Arciniega & González, 2000).

	MD (SD)	1	2	3	4	5	6	7	8
1. Normative Commitment (Factor 1)	36.65 (7.28)								
2. Normative Commitment (Factor 2)	65.24 (9.72)	.594**							
3. Affective Commitment	28.77 (8.97)	.478**	.263**						
4. Normative Commitment	27.70 (8.79)	.428**	.270**	.786**					
5. Commitment to Continuity	25.94 (8.78)	.222**	.126*	.610**	.696**				
6. Self-transcendence	16.35 (2.83)	.607**	.554**	.228**	.246**	.066			
7. Openness to change	15.70 (2.78)	.492**	.617**	.196**	.177**	-.001	.537**		
8. Self-aggrandizement	11.14 (3.83)	.243**	.362**	.075	.094	-.014	.207**	.282**	

Note. MD Arithmetic mean. (SD) Standard Deviation. * Indicates statistically significant difference at level .05 (bilateral). **. Indicates statistically significant difference at level .01 (bilateral). Factor 1 Loyalty-Reciprocity. Factor 2 Compliance-Liability.

Discussion and conclusions

This study shows the psychometric properties of a questionnaire of normative commitment of 28 items, being an instrument that allows evaluating the normative commitment through two factors. The construction of the instrument contemplated the most relevant and current theoretical contributions on the construct, aiming to integrate the various proposals. It is demonstrated that it is possible to develop a measure of normative commitment that does not show conceptual overlap with affective commitment and that reflects the essence of the construct, moral evaluation.

Correlations between Normative-Moral Commitment, EVAT30 and Organizational Commitment

The Normative Commitment in its subscale of loyalty-reciprocity presents a moderate correlation with the subscale of compliance and responsibility ($r = .594$) and with values towards work as an openness to change ($r = .492$), higher with the value of self-transcendence ($r = .607$) and weak with self-aggrandizement ($r = .243$). However, a moderate to weak correlation is observed with the three dimensions of the compromise proposed by Meyer and Allen (1993) called affective, normative and continuity commitment with results of $r = .478$, $r = 0.428$ and $r = .222$ respectively. The compliance-liability factor correlates weakly with the dimension of affective, normative and continuity commitment of Meyer and Allen (1993) with values of $r = .263$; $R = .270$ and $r = .126$ (See Table 4), as opposed to a moderate-high correlation with the values of self-transcendence, openness to change, and self-aggrandizement ($r = .554$; $r = .617$ y $r = .362$). The Organizational Engagement Questionnaire shows a strong and significant correlation in its three dimensions, mainly in the affective and normative component with a value of $r = .786$ followed by the continuity dimension with a value of $r = .610$. Also, the normative and continuity commitment correlate significantly with a value of $r = .696$. The value scale towards work the EVAT30 shows significant high relations in its components auto transcendence and openness to change ($r = .537$), but not with the self-aggrandizement value due to low correlation ($r = .207$).

The workers surveyed manifest a moral bond to the organization other than the economic interest evoking affective ties, such as loyalty and appreciation for perceived benefits. That is to say, that these employees recognize a commitment to the company based on reciprocity and mutual correspondence, since latent socially accepted moral standards preserve the social stability and well-being of the people with whom they are in contact, being this an autonomous and independent interaction. The scale measures a normative commitment based on fulfillment and responsibility towards the work, reflected in the accomplishment of activities under the policies and norms established organizationally

(Arciniega and González, 2012; González and Guillén, 2008).

In the first *loyalty-reciprocity* factor (reliability of $\alpha = .925$), the items refer to situations related to loyalty to the organization as gratefulness for what it has received for the performance of tasks attached to organizational policies. The second component, *compliance-liability* (reliability of $\alpha = .913$). The items describe work behaviors within the employee-organization linkage. Personal values are socialized and instilled early and are applied in all areas of life of the individual being the work environment one very important.

Concurrent and discriminant validity

The results allow us to suggest that the proposed questionnaire has adequate indicators, both in the correlation of its factors, and in the relationships it shows with affective commitment and continuity. With the proposed questionnaire, both issues (reciprocity-loyalty and fulfillment-responsibility) are presented with a moderate relationship between them, but they differ from affective and continuity commitments, since feelings of obligation (reciprocity-loyalty) present higher correlations than employee behavior (compliance-responsibility).

Thus, the need to study their discrimination regarding affective commitment given the convergence shown by elements of measurement and definition as Bergman (2006) points out, would no longer be a problem. In this study the correlations show high values between the dimensions of the organizational commitment of Meyer and Allen (1991), which makes it difficult to interpret the results by not adequately discriminate one dimension over another. As Bergman (2006, p. 646) argues, "it is shown that an important value of variance in one is explained by the other."

The relation between loyalty-reciprocity and self-aggrandizement, which would be expected to be negative, shows a weak and positive relationship, the explanation could be based on the incongruence of values, since the person-organization adjustment (relation between worker val-

ues, towards company values) differs and the opportunities offered by the current labor market to leave the job and obtain another are scarce, which affects their personal interests (Arciniega & González, 2006). On the other hand, the relationship between loyalty-reciprocity and openness to change could be explained through self-awareness and social approval, so the expected results can range from pride to guilt that derive from moral norms internalized by the employee's own interests (Solinger et al., 2008). Arciniega & González (2006) report the value of openness to change as a predictor of normative commitment. Likewise, we can consider that the concern for the well being of others is explained as a social responsibility where the value obtained in self-transcendence becomes latent (Arciniega & González, 2000).

When the commitment is manifested through the fulfillment of norms and responsibility of the worker, reference is also made to the individual's need to control his environment and activities, thus relating to values as openness to change where the thought and action of the worker is independent and assumes control over their environment. Taking the worker to generate confidence in people, being the basis of lasting relationships.

Limitations of this study

Several limitations can be observed at work. One is the composition of the group of participants, all of them from a service company. Another is that all the participants are from a state of the Mexican Republic, therefore not representative of the workers in general. A third is the low communality values obtained in four of the reagents (C6, R19, C7 and Re15) of the second factor; resulting of it a little contribution to explain the factor solution achieved, which leads us to be cautious in the generalization of the results obtained. In future research the structure of the questionnaire should be confirmed in other worker samples to identify the number and composition of components necessary to measure the construct.

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Annex: Items of the *Organizational Normative-Moral Commitment Questionnaire*

1. Does not look anything like me
2. It seems very little to me
3. It looks something to me
4. Looks like me
5. It looks a lot like me

Re9	Despite having other commitments, he / she is an employee who finishes his or her job first.	1	2	3	4	5
R16	He (she) continues to work in the company as a way to correspond to what it has given him (her).	1	2	3	4	5
C1	He/she knows the meaning of the rules and policies of the company and accepts them.	1	2	3	4	5
L24	He (she) continues to work in the company as a way of demonstrating his (her) loyalty.	1	2	3	4	5
C2	He / she is an employee who fulfills his / her work in accordance with the rules and policies of the company.	1	2	3	4	5
Re10	He (she) never leaves a job pending or unfinished.	1	2	3	4	5
R17	He (she) believes that the company has rewarded him/her for the work and effort made.	1	2	3	4	5
L25	He/She is an employee who thanks the company for everything they have provided and that is why continues to work for it.	1	2	3	4	5
C3	He (she) meets punctuality in the schedules and days of work established by the company.	1	2	3	4	5
Re11	Despite the tiredness or physical discomfort he/she may have, it is important for him/her to finish his work first.	1	2	3	4	5
R18	He/She is an employee who perceives balance in the relationship with the company.	1	2	3	4	5
L26	Is an example of loyalty to the company.	1	2	3	4	5
C4	He (she) fulfills in time and manners the activities that are assigned to him.	1	2	3	4	5
Re12	He (she) finds the way to do a good job even in unfavorable conditions.	1	2	3	4	5
R19	It is an employee who thinks the company is indebted to him (her)	1	2	3	4	5
L27	It is an employee who does his job as best as possible because he is interested in giving his/her best.	1	2	3	4	5
C5	He (she) complies with the rules and policies not to be sanctioned by the company.	1	2	3	4	5
Re13	He/she does not go home quietly if he leaves work pending or unfinished.	1	2	3	4	5
R20	He (she) expects the company to correspond in the future for the work and effort made.	1	2	3	4	5
L28	He (she) is an employee who does not harm the company because it is loyal to it.	1	2	3	4	5
C6	He (she) can lose his work if he does not fulfill his work under the guidelines and norms established by the company.	1	2	3	4	5
Re14	It is judged severely if it does not do a good job.	1	2	3	4	5
R21	He/she is a worker who makes an extra effort in his work as a way to correspond to the company for what he has/she been given.	1	2	3	4	5
L29	Gratitude to the company requires you to continue giving the best, including an extra of what you are asked.	1	2	3	4	5
C7	He (she) complies with the rules and policies of the company even though he/she does not know what are some for.	1	2	3	4	5
Re15	It is an employee who works overtime or on their rest days until finishes their work.	1	2	3	4	5
R22	He/she is an employee who does not want to defraud the confidence that the company has deposited in his/her work.	1	2	3	4	5
L30	He/she is an employee linked to his company as gratitude for everything he has given him/her.	1	2	3	4	5
C8	He/She is an employee who does his/her job "by the book" if not, it does not go well.	1	2	3	4	5
R23	The company has only provided benefits that he/she has obtained based on its effort and work.	1	2	3	4	5