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The Affective, Normative and Continuance Organizational Commitment Scales are meant to evaluate the commitment of individuals towards the organization they work for. Although they can be used in any organizational context, this study focuses on workers from industrial enterprises.

## ABOUT ORGANIZATIONAL COMMITMENT...

What is Organizational Commitment?

Despite the multiplicity of definitions and models there is a common point in the sense that organizational commitment reflects a psychological bond with the organization inversely related to turnover and withdrawal intentions (Fields, 2002; Allen & Meyer, 1990), although it is obviously very reductive to consider that Organizational Commitment is only related to focal intentions to remain with the organization (cf. Meyer & Allen, 1997, for a more detailed view).

How is it conceived and presented?

In the model of the present scale, affective commitment denotes an emotional relationship that the individual develops towards the organization, and is associated with the identification and involvement with it; continuance commitment reflects the perceived costs of leaving the organization (such as the loss of seniority or lower pay); and normative commitment is associated with the feeling of moral obligation or responsibility to remain in the organization.

- This study has as its **OBJECTIVE** conducting a Confirmatory Factor Analysis for the Affective, Normative and Continuance Commitment Scales (Meyer & Allen, 1991, 1997; Allen & Meyer, 1990) for the Portuguese Industrial Workers Population.
- The items are presented in a seven point Likert type scale, where subjects respond indicating their level of agreement with each statement. The answers can vary from 1 - *I totally disagree* and 7 - *I totally agree*.
- This scale is nowadays the most internationally used Organizational Commitment Scale and it has been the target of large scrutiny and empirical support. The number of studies conducted outside North America is still reputedly reduced, therefore being impossible to systematically evaluate its generalization (Meyer et al, 2002).
- This study **INTENDS** to establish the best fit model for the referred population in an effort to adapt and validate the referred Scales to the Population in question.

## SAMPLE

- The present study is based in sample of a 307 individuals, pertaining to six medium and large Portuguese industries.
- Data was collected between July of 2007 and January of 2008 in the six companies that enrolled the study.

## ADAPTATION OF THE INSTRUMENT

- The 19 item revised version of Meyer and Allen's Scales (1997) was adapted to the Portuguese language by Martins (2008)., involving:
- Translation of the instrument to Portuguese, followed by a backtranslation, done by an Englishman with domain of the Portuguese language.
- Pilot study with a small group of workers of an industrial company plus talked reflection.

## PROCEDURES

Questionnaires were directly collected by the authors or by a worker of the Human Resources Department of each company in a sealed envelope, thus conserving the confidentiality and anonymity of the respondents.

- The three-dimensional model underlying this scale has gathered empirical support in several studies (cf. Allen & Meyer, 1996, for an extensive list), and is today a widely referenced and reputed model. In the study developed by Martins (2008), where a sample of Portuguese Industrial Workers was used, the structure that emerged, although three-dimensional, had only 13 items (instead of the original 19).
- it was decided in the present sample to test the original model of the authors of the scale and the factorial solution that emerged from the study by Martins (2008).

## DATA ANALYSIS

- A confirmatory factor analysis (CFA) was conducted with LISREL 8,80 software (Jöreskog & Sörbom, 1993) using *Weighted Least Squares* (WLS) estimation. For inputting the data we used asymptotic covariances and polychoric correlation matrices.

## Validity

- In a first moment, Meyer and Allen's (1997) three-dimensional model was tested, where the Affective Component is composed by 6 items (3 of which reversed), the Normative Component has 6 items (one of which reversed) and finally the Continuance Component has 7 items (none of which reversed). In terms of the analysis of the model as a whole, the outcomes of the analyses carried out indicated a poor adjustment between the data and the hypothesized model, as can be seen from the goodness of fit indices values obtained (Table I).

- We then proceeded to a CFA of the structure emerging from the Martins (2008) study, following the above mentioned purpose. This factorial solution is composed by 13 items, so, it does not include items 2, 9, 12, 15 and 16 (the same ones that were eliminated in the present re-specification of the original model) but also item 1 (ACS) for presenting a low communality.
- The goodness of fit indices values obtained for the model that posits Martins (2008) structure revealed a better fit than the previous tested structures, showing satisfactory values for all the estimated indices (Table I).

Model	$\chi^2$	df	$\chi^2/df$	AGFI	CFI	RMSEA	Confidence interval (90%)
Meyer and Allen's original model (1997) - 19 items	1168.779**	149	7.84	.881	.844	.150	142-158
Re-specified Original Model - 14 items	232.807**	74	3.15	.950	.930	.084	.072-.096
Model obtained by Martins (2007) - 13 items	150.720**	62	2.43	.961	.946	.068	.055-.082

\*\* $p < .01$

- As can be seen in Figure I – representing Martins (2008) factor structure – items present satisfactory factor loadings that vary between .67 and .87, and thus indicating the model's convergent validity (Kline, 2005).

Table II - Comparison of the goodness of fit indices values for the Single factor, Two factor and Three factor models

Model	df	$\chi^2$	$\chi^2/df$	AGFI	CFI	RMSEA	$\Delta$ RMSEA	CFI	$\Delta$ CFI
Single Factor Model	65	227.352**	3.499	.890	.900	.127		.900	
Two Factor vs Single Factor Model	64	183.471**	2.867	.918	.927	.097	.030	.927	.027
Three Factor vs Single Factor Model	62	150.720**	2.431	.961	.946	.068	.029	.946	.046
Three Factor vs Two Factor Model	62	150.720**	2.431	.961	.946	.068	.000	.946	.019

\*\* $p < .01$ . All these models are composed by the 13 items retained by Martins (2007). The three-factorial model refers the factor structure obtained by the same author.

These results are consistent with the three component structure schemed in Figure I.

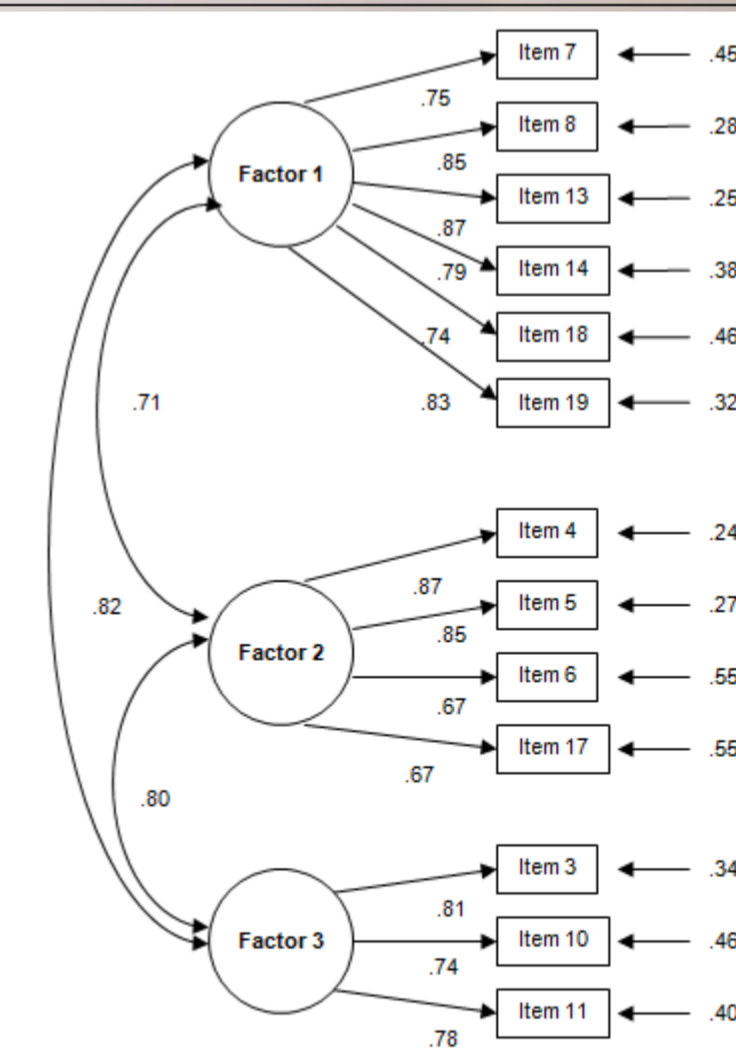


Figure I - Confirmatory Factor Analysis of the Model obtained by Martins (2008) (Standardized solution where the values concerning measurement errors are proportions of unexplained variance; Factor 1 - Continuance Commitment; Factor 2 - Normative Commitment; Factor 3 - Affective Commitment)

## Reliability

- Internal consistency was estimated using Cronbach's *alpha*. The three factors that we found showed a good internal consistency, with alpha values above 0.70 (Nunnally, 1978):  $\alpha = .81$  for factor 1 (continuance commitment, 6 items),  $\alpha = .79$  for factor 2 (normative commitment, 4 items) and  $\alpha = .73$  for factor 3 (affective commitment, 3 items).

## These results...

- We believe that these dimensions reflect the specificities of the Portuguese industrial workers population, reporting to values and circumstances that are distinct from the North-American reality, that include, for example, a lower tolerance towards professional risk and uncertainty (cf. Hofstede, 1980), that might be translated, for example in an affective bond of loyalty, reflecting more a feeling of debt to the employer than a feeling of belonging and satisfaction with the company

- Of the found dimensions, one kept almost integrally its original structure (Continuance Commitment Scale, in which only item 5 was removed) and the other two rather differ from Meyer and Allen's original model (1991, 1997; Allen & Meyer, 1990), where we not only eliminated some items, as similarly to what happened in other studies outside North-America (Lee et al, 2001; Ko et al, 1997), but also the items originally encompassed in the Normative and Affective dimension were mixed.
- Normative Commitment was considered the factor that includes items 4, 5, 6, and 17 (three of which originally included in the NCS and one, 6, in the ACS). These items semantically report to the feeling of guilt associated with withdrawal intentions, revealing a feeling of moral obligation/responsibility to remain.
- Affective Commitment was considered the factor that includes items 3, 10 and 11 (one originally included in the ACS, and two, 10 and 11, in the NCS), in the sense that the items translate a feeling of loyalty towards the company reflecting an emotional relationship with it.

Table III - Content, means and standard deviations of the items

Items	Mean	Standard Deviation
1- This organization has a great deal of personal meaning to me. (A)	5.97	1.212
2- I do not feel a strong sense of belonging in my organization. * (A)	4.72	2.007
3- I would be very happy to spend the rest of my career in this organization. (A)	5.57	1.456
4- Even if it were to my advantage, I do not feel it would be right to leave my organization now. (N)	4.63	1.786
5- I would not leave my organization right now because I have a sense of obligation to the people in it. (N)	4.02	1.796
6- I really feel as if this organization's problems are my own. (A)	5.01	1.557
7- One of the few negative consequences of leaving this organization would be the scarcity of available alternatives. (C)	4.40	1.795
8- One of the major reasons I continue to work for this organization is that leaving would require a considerable personal sacrifice; another organization may not match the overall benefits I have here. (C)	4.79	1.791
9- I believe that I have too few options to consider leaving this organization. (C)	4.96	1.831
10- I owe a great deal to this organization. (N)	4.72	1.700
11- This organization deserves my loyalty. (N)	5.57	1.411
12- I do not feel any obligation to remain with my current employer. * (N)	4.57	1.735
13- It would be very difficult to leave this organization now, even if I wanted to. (C)	4.48	1.770
14- I believe that I have too few options to consider leaving this organization. (C)	4.31	1.767
15- If I had not put so much of myself into this organization, I might consider working elsewhere. (C)	3.84	1.748
16- I do not feel "part of the family" at my organization. * (A)	4.90	1.842
17- I would feel guilty if I left my organization now. (N)	3.41	1.711
18- Right now, staying with my organization is a matter of necessity as much as desire. (C)	5.26	1.526
19- Too much of my life would be disrupted if I decided I wanted to leave my organization now. (C)	4.98	1.796

Notes: The reverse items are marked with \*. The letters A, C and N represent the component that each item belongs to, according to Meyer and Allen (1997): A - Affective Component; C - Continuance Component and N - Normative Component.

INTRODUCTION  
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