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Developing a scale measuring Organizational Happiness for communication and information professionals: content analysis and exploratory factorial analyses

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ABSTRACT

Research on organizational happiness has been increasing in recent years but there is still need to develop instruments to measure happiness at work, considering organizational factors. These studies aim to start this work, proposing a scale to measure organizational happiness. We conducted two studies, following a cross validation approach. The first study, qualitative, by applying content analyses, aimed to identify the factors and variables considered essential to be happy within the organization. The sample in study 1 consisted of 969 active professionals from Human Resources Portuguese Association database. Based on the content analyses we developed a first questionnaire. Study 2 aimed to initiate the scale validation. The questionnaire developed in study 1 was answered by a second sample of 1336 active professionals. The exploratory analysis identified four first order factors. Next step will be to proceed with confirmatory factorial analysis to validate the model and propose a final scale.

Keywords: Organizational happiness; Work well-being; Scale; Exploratory Factorial Analysis.

INTRODUCTION

Since the World Health Organization defined health as "a state of complete physical, psychological and social well-being", the concepts of happiness and well-being have been gaining interdisciplinary importance. These terms have been used interchangeably (Blanch, Sahagún & Cervantes, 2010; Warr, 2013) or linked to other terms according the association to a use or a theory. Examples are the terms of subjective well-being (Diener, 2000; Strack, Argile & Schwarz, 1991) or psychological well-being (Bryce & Haworth, 2003; Ryff & Keyes, 1995; Warr, 1987, 1990). A review of different definitions reveals that they always reflect the theory within which they have been built (Veenhoven, 2012). Like most happiness definitions, subjective well-being

mostly refers to positive feelings associated to positive subjective assessments that individuals made of their life (Diener, Sandvik, & Pavot, 1991).

The scientific interest in positive things emerging from organizations has followed the evolution of the study of happiness in general (Bakker, Rodriguez-Muñoz, & Derks, 2012; Xanthopoulou, Bakker, & Ilies, 2012). Different authors refer that labor achievement must be a central indicator for the definition of quality of life. The compromise between workers welfare, health and entrepreneurs concerns on profit and productivity is, from the beginning, the core of organizational scientific work. Today we know, unequivocally, that work contributes to well-being or to happiness (Fisher, 2010; Warr, 2007) and that unemployment causes a significant reduction in well-being (Clark, Diener, Georgellis, & Lucas, 2008).

LITERATURE REVIEW

The number of research projects using positive constructs in organizations is achieving a major impact (Rodríguez-Muñoz & Sanz-Vergel, 2013). Main constructs, from different paradigms and methodologies are, among others, work engagement (Bakker & Leiter, 2010), job satisfaction (Judge, Thorensen, Bono, & Patton, 2001), work flow (Csikszentmihalyi, 1990), positive emotions at work (Vacharkulksemsuk & Fredrickson, 2013) and work enjoyment (Bakker, 2008). All have in common, positive intellectual evaluations (judgments and attitudes) and positive affective experiences (feelings, moods, emotions) (Bakker & Oerlemans, 2011), exactly in the same sense that is commonly accepted that happiness, subjective well-being or psychological well-being, consist on a set of valuation judgments and satisfactory, pleasant and positive emotional reactions (Andrews & Withey, 1976; Blanch et al, 2010; Diener, 2000).

If, in his widest sense, 'happiness' is an umbrella term for all that is good, 'happiness at work' is an umbrella concept that includes a great number of factors ranging from transient moods and emotions, to relatively stable attitudes and highly stable individual dispositions aggregated at an individual level (Fisher, 2010).

According to Bakker and Oerlemans (2011), happiness at work was conceptualized as the situation where the employee 1)is satisfied with his / her job and 2) experience frequent positive emotions, such as joy and happiness, and infrequent negative emotions, such as sadness and anger. Even if this definition do not raises major obstacles, we consider that it is rather vague: do not discriminate low-level emotions (usually of short duration) from more elaborate and permanent affections. Also, do not discriminate between situational situations and the work experience as a whole. Finally, the definition focuses exclusively on subjective experience, ignoring those context factors based on interpersonal experience.

Recent studies aim to decompose the various dimensions of labor welfare. As an example, several researchers have used Ryff's Psychological Well-Being framework (Ryff, 1989; Ryff & Keyes, 1995) to operationalize assessments of self-realization - a major component of labor welfare (Keyes, Shmotkin, & Ryff, 2002). In PWB (Psychological Well-Being Scale) scale, Ryff (1989) identifies six psychological dimensions of self-realization. Each dimension articulates different challenges individuals encounter as they strive to function positively. These are: self-acceptance (seeing and accepting one's strengths and weaknesses); purpose in life (having objectives giving life meaning and direction); personal growth (feeling that personal talents and potential are being realized); positive relations with others (having close, valued connections with significant others); environmental mastery (managing the demands of everyday life); and autonomy (following personal convictions, even if they go against conventional wisdom).

In a parallel context, the study of emotional well-being in the workplace has gained prominence with the works of Warr (1987, 1990) and Van Katwyk, Spector, Fox, & Kelloway (2000). Both works classify work-related emotions with the dimensions of pleasantness and arousal, and both models propose a specific scale. Warr (1990) proposes measuring the job-related affective well-being with four interrelated factors: anxiety, comfort, depression, and enthusiasm.

Otherwise, the concept of happiness is increasingly being framed in the overall context of the relationship between "Myself" and "Others", which provides a more complete account of the way by which culture can influence our emotions and attitudes (Uchida, Norasakkunkit & Kitayama, 2004). De Leersnyder and colleagues (De Leersnyder, Mesqwuita, Kim, Eom & Choi, 2014) have developed a study across different cultural contexts: United States, Belgium and South Korea. Their results seem to demonstrate that individuals' emotional fit is associated with their level of relational well-being. Reasons for happiness at work, probably, are different according to national cultures. There is not much evidence on this, but Hofsteded (1991) seminal works on

national culture is an excellent point of reference. This may justify the need to develop new research, replicating and structuring, ab-initium, new instruments allowing identify happiness organizational factors that may, naturally, vary from region to region.

In other words, our research is motivated by the pragmatic need to create an instrument, a scale, aiming to measure happiness at work for south Europe regions that, according to Hofstede (1991) have cultures with relevant similitudes.

METHODOLOGY

Measure Instrument

A first study, developed during 2012 (Dutschke, 2013; Dutschke, Gomes, Combadão & Jacobsohn, 2015) consisting on 969 individual interviews. Respondents are active professionals, approximately equally male and female, from APG (Portuguese Association of Human Resources) database. An open question was made: What do you need to be happy in your organization? Methodology used to analyze the open questions was: (1) Data collection, (2) Data storage, (3) Coding, (4) Indexing system refinement, (5) Code relationship and (6) Identify Categories. For stages 3, 4, 5 and 6 was applied a content analysis, which according to Berelson (1952) "is a research technique applied with the objective to systemize, on a quantitative way, the content of communication". In this research the content analysis developed is: (1) Analyze and identify variables, (2) Determine the encoding rules, (3) Determine category system, (4) Check the reliability of coding system - categorization and (5) Inferences. To develop the content analysis we have used Atlas Ti V6.0 software that combines a friendly use and a major ability to encoding and draws conclusions (Miles & Huberman, 1994). We have considered the process proposed by Miles & Huberman (1994): citations evaluation, highlight the words of each response, encoding, code interpretation and category codification. For the encoding process we have first created a list with the initial based code (Miles & Huberman, 1994) to be used in the interactive process of analysis. The code facilitated the identification of occurrence patterns, bias control, and alternative or opposite directions and the level of consistency. After identifying the codes we proceeded to evaluate their interrelation, the frequency of occurrence and the number of relation with other codes. This allowed establishing the importance and strength of each code. In total 1710 references were categorized. After analyzing each and all components, 38 variables where identified. Based on this items, a previously questionnaire was developed.

The questionnaire previously developed was answered by 1336 active professionals of communication and information sectors in Portugal in February / April 2013, 2014 and 2015. Professionals were contacted through the APG (Portuguese Association of Human Resources) database. At the end, 1079 completed and validated answers were received. Respondents are approximately equally male / female (48% / 52%) and 30% were directors.

Statistical Analysis

The main statistical tools used in this work were exploratory factor analysis (EFA), using the software IBM SPSS Statistics (version 22). In EFA all items were allowed to have loadings with the factors in the model and all factors were allowed to be correlated.

For the goodness-of-fit we used the Goodness of Fit Index (GFI), using the limit of 0,9 as indicative of good/adequate fit, the Adjusted Goodness of Fit Index (AGFI), and the Root mean Square Residual (RMSR), using the limit of 0,1 or lower as indicative of good/adequate fit several fit indices.

RESULTS

We calculated the means, standard deviation, skewness and kurtosis of the responses in each item (table 1). Inspection of these values indicates that, in general, the values were not high in absolute value. Next, we assessed the internal consistency of the entire questionnaire, measured by Cronbach's α, which resulted in the very good result of 0.984. By the observation of the Pearson's correlation coefficient histogram (figure 1), we can observe that a large degree of correlation between the 38 items exists. Consequently, the minimal correlation between items was 0.37.

Table 1. An example of a table.

Item	Mean	Std. Deviation	Skewness	Kurtosis
I_01	3,93	0,989	-0,871	0,419
I_02	3,76	0,971	-,659	,128
I_03	3,63	1,076	-,546	-,234
I_04	3,88	1,014	-,755	,178
I_05	3,53	1,134	-,414	-,599
I_06	3,68	1,105	-,577	-,407
I_07	3,34	1,087	-,305	-,508
I_08	3,52	1,158	-,476	-,592
I_09	3,77	1,065	-,711	-,055
I_10	3,90	1,007	-,804	,213
I_11	3,45	1,228	-,467	-,720
I_12	3,66	1,179	-,645	-,396
I_13	3,74	1,189	-,793	-,076
I_14	3,58	1,212	-,514	-,672
I_15	4,05	0,983	-1,062	0,836
I_16	3,41	1,207	-,401	-0,726
I_17	3,68	1,177	-,579	-,613
I_18	3,33	1,179	-,314	-,744
I_19	3,01	1,250	-,089	-1,001
I_20	2,89	1,292	,043	-1,073
I_21	3,55	1,160	-,458	-,644
I_22	3,54	1,192	-,439	-,723
I_23	3,76	1,047	-,581	-,378
I_24	3,45	1,151	-,395	-,606
I_25	3,48	1,158	-,436	-,610
I_26	3,48	1,198	-,401	-,729
I_27	3,25	1,182	-,206	-,794
I_28	3,53	1,270	-,548	-,739
I_29	3,48	1,234	-,482	-,719
I_30	3,56	1,196	-,524	-,602
I_31	3,34	1,351	-,352	-1,062
I_32	3,49	1,255	-,454	-0,805
I_33	4,13	,871	-0,929	0,696
I_34	4,20	,861	-1,016	0,802
I_35	3,72	1,176	-,704	-,277
I_36	3,54	1,122	-,491	-,499
I_37	3,56	1,087	-,419	-,504
I_38	3,58	1,148	-,519	-,499
I_01	3,93	0,989	-0,871	0,419
I_02	3,76	0,971	-,659	,128
I_03	3,63	1,076	-,546	-,234
I_04	3,88	1,014	-,755	,178
I_05	3,53	1,134	-,414	-,599

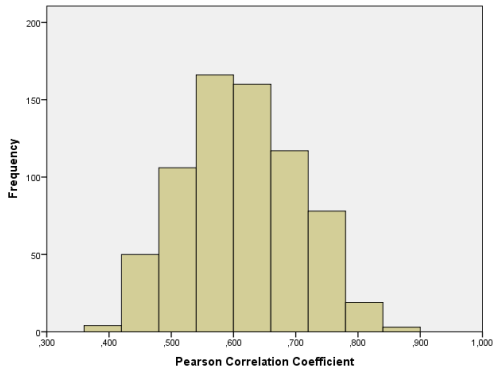

Figure 1. Pearson's correlation coefficient.

Exploratory Factor Analysis

The relational structure of the items on happiness in the organization was assessed by an Exploratory Factorial Analysis (EFA) over the correlation matrix, with the extraction of factors by the principal components method with a Varimax rotation.

The common factors retained were those with eigenvalues higher 1 and in consonance with the scree plot l and the amount of variance retained, since the use of a single criterion can lead to retention of plus / minus factors than those relevant to describe the underlying data structure.

To assess the overall validity of the EFA, the KMO criterion indicates a value superior to 0,7 (of 0.981) which represents an excellent factorial adjustment of the data on the correlation matrix. In addition, the Measure of Sampling Adequacy (MSA), obtained by the main diagonal analysis of the Anti-image Matrix, showed that all diagonal values are greater than 0.5, thus it can be concluded that the use of all variables in the analysis is appropriate.

According to the rule of an eigenvalue greater than 1 and the analysis of the slope of the scree plot, the relational structure of the various items of the happiness scale is explained by four factors, which explains 73% of the total variance. Table 2 summarizes for each item the weight factor in each of the factors, their eigenvalues, communalities and the amount of variance explained by each of the extracted factors.

Subsequently the factors were nominated, as follows: F1 = Personal development and organizational support; F2 = Recognition and autonomy; F3 = Work environment; F4 = Social responsibility.

Table 2. Factorial structure

Item	Factors				Comunalities
	F1	F2	F3	F4	
I_01	0,285	0,264	**0,769**	0,207	0,785
I_02	0,269	0,214	**0,792**	0,194	0,782
I_03	0,364	0,220	**0,779**	0,232	0,841
I_04	0,300	0,208	**0,753**	0,215	0,746
I_05	0,537	0,282	**0,513**	0,286	0,713
I_06	**0,581**	0,233	0,196	0,400	0,590
I_07	0,257	0,237	**0,649**	0,330	0,652
I_08	0,485	**0,604**	0,287	0,220	0,731
I_09	0,423	**0,655**	0,335	0,230	0,772
I_10	0,450	**0,670**	0,277	0,204	0,770
I_11	**0,657**	0,387	0,337	0,256	0,760
I_12	**0,703**	0,387	0,348	0,178	0,797
I_13	**0,710**	0,339	0,334	0,191	0,767
I_14	**0,757**	0,319	0,307	0,165	0,796

I_15	0,520	**0,607**	0,219	0,044	0,688
I_16	**0,621**	0,409	0,294	0,131	0,657
I_17	**0,726**	0,420	0,300	0,074	0,800
I_18	**0,662**	0,279	0,341	0,314	0,731
I_19	**0,523**	0,169	0,244	0,406	0,527
I_20	**0,614**	0,220	0,134	0,447	0,642
I_21	**0,522**	0,506	0,226	0,316	0,679
I_22	**0,553**	0,525	0,266	0,353	0,776
I_23	**0,500**	0,428	0,232	0,399	0,646
I_24	**0,691**	0,235	0,266	0,406	0,769
I_25	0,361	0,237	0,221	**0,635**	0,639
I_26	**0,684**	0,242	0,242	0,419	0,762
I_27	**0,598**	0,231	0,362	0,437	0,734
I_28	**0,683**	0,244	0,282	0,352	0,730
I_29	**0,657**	0,284	0,376	0,343	0,771
I_30	**0,664**	0,357	0,294	0,398	0,813
I_31	**0,738**	0,253	0,297	0,299	0,786
I_32	**0,657**	0,406	0,275	0,335	0,784
I_33	0,197	**0,761**	0,211	0,284	0,743
I_34	0,239	**0,721**	0,204	0,352	0,743
I_35	**0,589**	0,311	0,325	0,300	0,639
I_36	0,167	0,237	0,280	**0,708**	0,663
I_37	0,337	0,296	0,289	**0,689**	0,760
I_38	0,474	0,203	0,308	**0,572**	0,688
Eigenvalue	23,858	1,507	1,233	1,076	
Explained variance	29,9%	15,4%	14,9%	12,7%	

All commonalities are high, showing that the four factors retained are appropriate to describe the latent correlation structure between items of happiness.

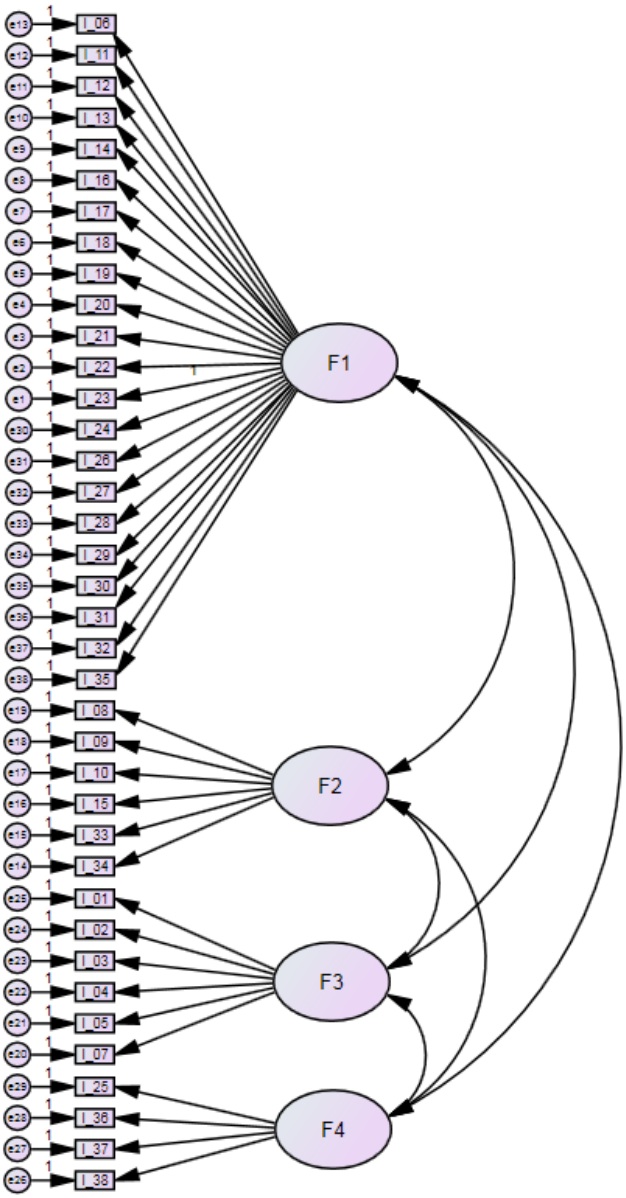

Figure 2. EFA Model for Organizational Happiness

CONCLUSION

The Happiness at work scale proposed for measuring communication and information sectors employee sense of well-being, at the organization they work, was validated with four factors. The scale presents good performance, good fit, and differentiates happiness at work according to the ability of the organization to allow employee to reach personal development and organizational support, recognition from their work and autonomy, a positive work environment, and social responsibility measures, namely those related to safety or personal life-work balance. Being this an exploratory work, next step will be to proceed with confirmatory factorial analysis to look for a second order factor (Organizational Happiness) and the interpretation of each factor identified.

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