FAMILY AND CO-WORKERS NETWORKS IN SUBJECTIVE WELL-BEING AND JOB SATISFACTION: STUDY ABOUT HAPPINESS IN NORTHERN PORTUGAL AND GALICIA (SPAIN)

[1]LILIANA ALVES, [2]HELENA SANTOS-RODRIGUES, [3]ISABEL NEIRA GOMEZ

[1]Instituto Politecnico de Viana do Castelo (Portugal), [2]Instituto Politecnico de Viana do Castelo (Portugal), [3]Universidade de Santiago de Compostela (Spain)
E-mail: [1]lialves@estg.ipvc.pt, [2]hsantos@estg.ipvc.pt, [3]isabel.neira@usc.es

Abstract- Subjective Well-being and Job Satisfaction in firms of the Northern Portugal and Galicia (Spain) is our object of study and we applied a questionnaire to employees and managers of 84 companies identified this Euro region. The analysis presented in this paper takes as its starting point the 224 valid responses received, seeking to understand the influence of family and co-workers networks in the subjective well-being and job satisfaction felt by respondents. We conducted a Structural Equation Model analysis based on components (Partial Least Squares), where the happiness construct was analyzed through observable variables -subjective well-being and job satisfaction, whereas the family network and co-workers network (no hierarchical difference) constructs were analyzed through trust and cooperation perceived by the respondent in the networks. The model analysis revealed that trust and cooperation felt on both networks analyzed are the variables with the greatest influence on happiness construct. 12% of the happiness construct variation is explained by the co-workers network construct (no hierarchical difference) and 7% is explained by the family network construct.

Index Terms- Happiness, Well-Being, Job Satisfaction, Networks, Trust.

I. INTRODUCTION

The presented research was developed based on three key constructs: happiness, family network and co-workers network (no hierarchical difference). Although there are studies that prove that social capital influences happiness, few studies make this analysis within companies. This research aims to demonstrate that family network and co-workers network (including the trust felt in the members of the networks) has an impact on happiness as construct measured by the subjective well-being and job satisfaction. The next section provides a brief review of literature on happiness, networks and trust. Then we present the methodology and results achieved. The article ends with the conclusions and future lines of research.

II. LITERATURE REVIEW

The European Value Study [1] makes the analysis of three components of happiness: subjective well-being, life satisfaction and job satisfaction. Subjective well-being is analyzed in various areas of knowledge: biology [2] - [3], psychology [4]- [5], sociology [6] - [7], economy [8] - [9] - [5]. F. Helliwell & Huang [10] analyzed various characteristics of workplaces in Canada, looking specifically at non-financial characteristics. They found that a change of one point in job satisfaction corresponded to a similar impact on well-being equivalent to a change of 0.5 at salary. Among non-financial characteristics of the workplace with the greatest influence on job satisfaction there is the trust felt in the workplace.

In addition to the economic capital and cultural capital, Akbarzadeh, Dehghani, Khoshfar, & Janalizadeh [8] found that social capital is a capital with great impact on the individual's subjective well-being, because human relations are important in subjective well-being. Diener & Seligman [11] found that individuals with higher subjective well-being levels had excellent social relations and these relations are characterized by their quality. According to OECD [12] people are connected with the social environment that surrounds it in two ways. A broader, which includes connecting to volunteer, political and generosity. A closer, where are included others that are nearby: family, friends, and neighbors. Helliwell [13] argues that people are sensitive to the social context in which they operate, where they work, where they live. On this point of view, people value the trust in neighbors, colleagues at work, in public services around them. Seeing the results of the Canadian ESC survey, people who come into contact more often with family, friends and neighbors feel greater subjective well-being than individuals who do not have this kind of contact [13]. Taking into account the importance of networks in the happiness of the individual, a concept that deserves special attention in the study of networks is the issue of trust felt among individuals who are part of the network [14] - [15].

Trust is related to two aspects: acceptance of vulnerability and positive expectations regarding the other [16] - [17]. According to the authors, trust implies the belief that the person's actions in whom you trust, and over which we have no power to interfere, run counter to our benefit and / or will not

harm us. Observing trust in organizational environment, Abrams, Cross, Lesser, & Levin [18] argue that trust is important to knowledge share and to increase the organization's internal cooperation, whereas Dirks & Ferrin [19] conclude that trust increases organizational commitment and decreases the desire for self-dismissal.

III. METHODOLOGY

Between January and June 2015 we released a single questionnaire between employees and managers in companies in northern Portugal and Galicia (Spain). The questionnaire requested an individual analysis of subjective well-being, life satisfaction and job satisfaction, applying the issues of European Value Study [1] and the respondent answered a Likert scale (1-10).

Additionally, we asked to respondent to characterize the family network and co-worker (no hierarchical difference) network relative to the size of the network and frequency of contact as well as how to trust, collaborative spirit and mutual aid spirit within networks. The analysis of trust, cooperation and mutual aid was also performed on a Likert scale (1-10), and was based on the Current Population Survey [20].

IV. ANALYSIS AND DISCUSSION OF RESULTS

We received 224 valid surveys of 84 companies identified. 132 men and 92 women answered to the questionnaire, with a mean age of 38 years and work, on average, 10 years in the company about which responded. 167 are employees and 57 managers. 65% of respondents have university degrees and 207 surveyed work in the northern Portugal companies. The characterization of networks - size and frequency of contact – disclosed that respondents contact, at least, once a week, on average, with 6 family members and 15 co-workers (without hierarchical difference). On the topic of the frequency of contact, 60% said that contact with family members from 7 to 5 times a week and 64% said that contact with co-workers (without hierarchical difference) from 7 to 5 times a week. We present the descriptive statistics about individual happiness perception - subjective well-being (H_SWB), life satisfaction (H_LS), job satisfaction (H_JS); and trust, cooperation and mutual aid spirit in family network(FN) and co-workers network (CN) (with no hierarchical difference). Respondents gave average values very similar to the three questions about happiness, ranging between 7 and 8, on a scale 1-10. In turn, the descriptive analysis of the received responses about trust, cooperation and mutual aid within the family and co-workers (no hierarchical difference) networks showed high average in terms of trust and cooperation.

Table i - Descriptive Analysis - Happiness, Family Network and Co-workers Network

	N	Mini.	Maxi.	Mean	Std. Deviation
H_SWB	224	1	10	7,90	1,923
H_LS	224	1	10	8,01	2,460
H_JS	224	1	10	7,24	2,360
FN_Trust	224	3	10	9,04	1,485
FN_Cooperation	224	2	10	8,62	1,639
FN_ Mutual Aid	224	1	10	8,49	2,743
CN_ Trust	224	1	10	7,18	2,159
CN_ Cooperation	224	1	10	7,42	1,969
CN_ Mutual Aid	224	1	10	6,93	2,717
Valid N (listwise)	224				

Considering the exploratory phase of the study, the reduced sample, and in order to assess relationships between latent variables through the analysis of components, we decided to structural equation model Partial Least Squares [21] - [22]. Data were coded and analyzed in Smart PLS software Version: 2.0.

We defined a model where the Happiness construct was measured by of subjective well-being, life satisfaction and job satisfaction as observable variables. Therefore, the Family Network and Co-workers Network (no hierarchical difference) constructs, from now called only by Co-workers Network, were analyzed using the observable variables trust, cooperation and mutual aid felt in each of the networks. Initially, we proceeded to the evaluation of the measurement model, aiming to verify the extent to which Happiness, Family Network and Co-workers Network constructs are measured by observable variables, performing thus a validation of reflective indicators. The analysis of the factor loadings showed that the variable life satisfaction was not significant to Happiness construct, whereas the variable mutual aid did not prove significant to Family Network and Co-workers Network constructs.

In Fig. 1 we present the model with the significant variables for their respective constructs (we present in annex).

We continued for internal consistency of the constructs evaluation in order to prove that the variables that compose the construct are related each others.
To perform the analysis of the reliability of constructs, we examined the convergent validity (Average Variance Extracted - AVE), the Composite Reliability (CR), the Cronbachs Alpha coefficient and

discriminant validity. In table ii we present the values relating to the reliability of the constructs.

Table ii - Constructs Reliability: Happiness, Co-workers and Family Networks

	AVE	CR	R 2	Cronb. Alpha	Communality	Redund.
H.	**0,7564**	**0,8612**	**0,2331**	**0,6809**	0,7564	0,1162
CN	**0,9**	**0,9473**	0	**0,889**	0,9	0
FN	**0,8554**	**0,922**	0	**0,8326**	0,8554	0

As seen in table ii, the Happiness construct has an AVE of 0.76, meaning that 76% of the Happiness construct variation is caused by its indicators whereas the Co-workers Network construct has an AVE of 0.9, indicating that 90% of the variation the Co-workers Network construct is caused by its indicators. Meanwhile, 86% of the Family Network construct variation is caused by its indicators. Then, we observed that the Composite Reliability of all constructs is greater than the permitted minimum value (0.7). With regard to the Cronbach's Alpha coefficient, despite the Cronbach's Alpha coefficient be 0.6809 in the Happiness construct, we considered a reasonable value for the internal consistency of the construct. Finally, the analysis to the constructs square root of the AVE, as well as, the cross loadings values confirmed the discriminant validity of the constructs. After the above analysis, we considered that the measurement model as correct, accordingly the observable variables measure correctly the concept, meeting the internal consistency and reliability values required. Then, we proceeded to the evaluation of the structural model through the R2 analysis, the significance of the paths and levels of significance (Stone-Geisser test - Q2). Despite the R2 is low (0.2331), we continued the analysis because, according to Chin [23], it is possible a model with a low R2 and / or low factor loadings have an excellent fit index. After applying the bootstrapping technique (sub-sample surveys 5000), we found that the strengths of prediction of the paths are positive and medians. The explained variance of Co-workersN-> Happiness is 12% and the variance explained of FamilyN -> Happiness is 7%.

Table iii - Explained Variance: Family and Co-workers Networks in Happiness

	PLS	Bootstrapping	**Explained Variance**
	Beta	Path Coeficiente	
Co-workersN-> Happiness	0,344	0,344	**12%**
FamilyN -> Happiness	0,2725	0,2725	**7%**

Subsequently, the t Student two tale distribution analysis, n-1 degrees of freedom for 5000 subsamples based on the results of 224 cases examined and having with reference t (0.05; 4999) = 1.960, resulting in values higher than 1.960, presented the higher value in CNCOOP <- Co-workers N (16.5237). The analysis of the confidence intervals showed 0.196795 as minimum value and 0.479805 as maximum value. The values were calculated in order to have a 95% confidence interval, obtained by percentile function: lower limit - percentile (range, 0.025); upper limit - percentile (range, 0.975). Finally, the dependent constructs predictive relevance was performed using the Test Stone-Geisser (Q2) following the blindfolding procedure with an omission away 9.

Indicator and Construct Cross-validated communality and Cross-validated redundancy analysis revealed there is predictive relevance of the theoretical model.

CONCLUSION

In sum, the results showed that trust and cooperation felt in the Family Network and Co-workers Network (no hierarchical difference) influence the subjective well-being and job satisfaction felt by the individual.

According to what was presented in the previous section, the Happiness construct variation is explained 12% by the Co-workers Network (without hierarchical difference) construct, and 7% by the Family Network construct. The subjective well-being and job satisfaction are the variables that showed up representing in the Happiness construct. The results achieved are indicators of the importance of social capital in happiness at workplace, and trust as a crucial variable in this relationship. Considering that data analysis from the companies of northern Portugal and Galicia (Spain) revealed that the proposed measurement model is correct and has theoretical validity, we propose a new theoretical approach about the importance of social capital in subjective well-being and job satisfaction in companies.

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Annex

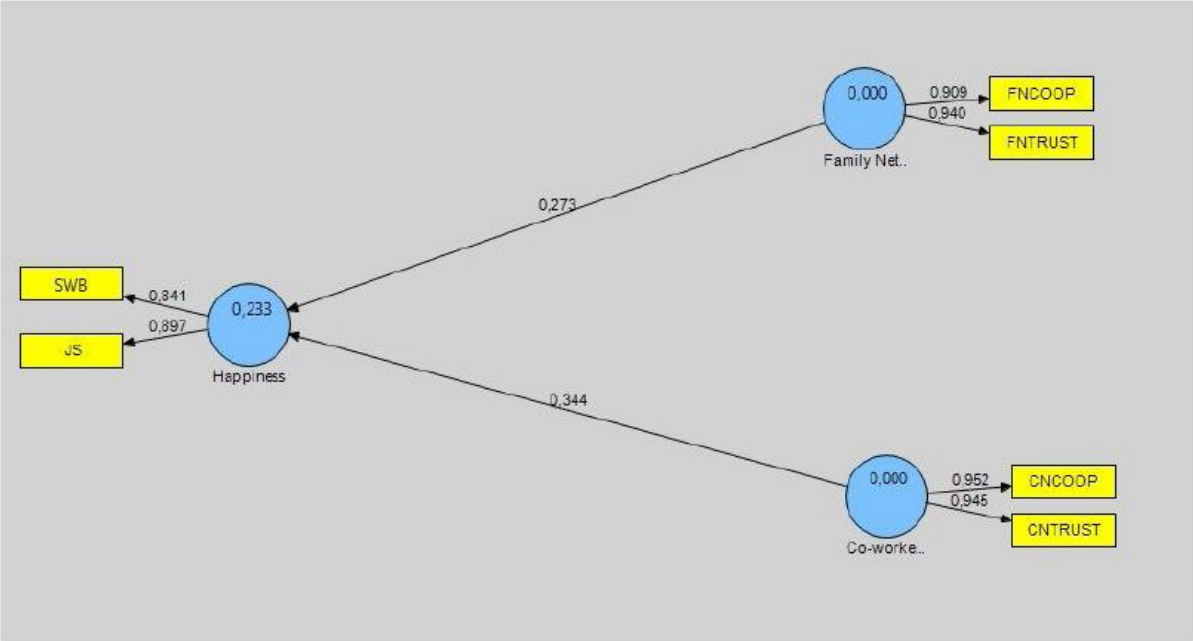


Figure 1 - Loadings: Family and Co-workers Networks in Well-being and Job Satisfaction Model

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