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Towards happiness in the workplace: Taking care of motivations and eliminating «digital fears»

Hacia la felicidad laboral: Atender motivaciones y eliminar «temores digitales»

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Abstract

Motivation is a basic element of the 'Happiness Management' model at work. Its components are analyzed in the digital era under the Herzberg Theory of the motivational and motivational factors to verify if an association between worker sociodemographic profile and these factors is detected, which would allow the managers to «sanitize» them. In a group of companies in Algeciras Bay, province of Cádiz (Spain), in the Strait of Gibraltar, a survey has been done. This area is of special strategic relevance, being the main transit route for people and merchandise worldwide, and a meeting point for two continents, two seas and two cultures. By a validated questionnaire, the opinions of workers are collected about the issues that have been established as motivating and demotivating factors (fears). Refined data are treated with SPSS.25 program. It is confirmed that the motivational factors are highly valued. Falsity of the data, fear of being substituted at job, and depersonalization because automation are the most feared topics. An association of worker sociodemographic variables and the level to which some of these fears are manifested is found out. The main originality of this paper lies in the contribution and analysis of new motivational factors of the digital age in workplace, which must be managed.

Resumen

Considerando la motivación como integrante básico de la gestión de la felicidad en el trabajo, se analiza la valoración de determinados componentes de la misma en la era digital a partir del concepto de factor motivacional e higiénico de Herzberg. Se comprobará si existe alguna asociación entre el perfil sociodemográfico del trabajador y ciertos factores a «higienizar». Se realiza un cuestionario en muestra de empresas de la bahía de Algeciras, en la provincia de Cádiz (España), en el estrecho de Gibraltar, zona ésta que resulta de especial relevancia estratégica al ser ruta de tránsito mundial principal de personas y de mercancías, y punto de encuentro de dos continentes, dos mares y dos culturas. Mediante cuestionario validado, se recogen las opiniones de trabajadores sobre los factores establecidos como motivadores y desmotivadores (temores). Los datos, depurados, son tratados con el programa SPSS.25. Se confirma que los factores motivacionales propuestos son altamente valorados. La falsedad de datos, el miedo a ser sustituidos en las tareas y la «despersonalización» del trabajo son las cuestiones más temidas, cuya ausencia hay que procurar. Se percibe también, asociación de determinadas variables sociodemográficas del trabajador con el grado en que se manifiestan alguno de esos temores. La originalidad principal de este trabajo estriba en que se aportan y analizan factores motivacionales e higiénicos de nueva aparición en lo laboral, que, como tales, habrán de ser gestionados.

Keywords | palabras clave

Motivation, robotization of jobs, Herzberg, happiness management, job satisfaction, motivation theories, fears at digital era, company.
Motivación, robotización laboral, Herzberg, gestión de la felicidad, satisfacción laboral, teorías de la motivación, temores en la era digital, empresa

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Retos, 9(18), 2019

1. Introduction

1.1. State-of-the-art

The advent of the new century and the current decade has caused the emergence of a new concept that seemed even alien to the labor context: that of happiness at work. Whether directly treating "Happiness Management" (González-Díaz, 2018), as certain theories derived or complementary to it, such as "Happy-Performing Managers" (*v. gr.* Hosie *et al.*, 2019), the literature shows that the conclusion is similar for employees and managers: happier people, with greater emotional well-being in the work environment, show more motivation for the performance of the activity; and this is happening in companies, but also in non-profit organizations (Bashir *et al.*, 2019).

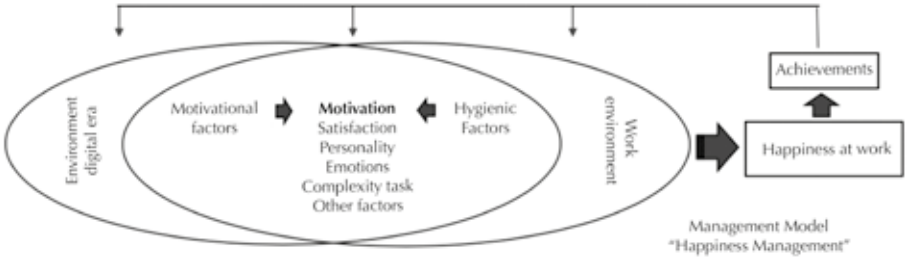
Happiness, satisfaction and motivation are different terms, but clearly interrelated. The Royal Academy of the Spanish Language (RAE) defines motivation as the stimulus or interest that determines the actions of a person. And so, if the employee is motivated to do his work and achieve the objectives set, it could be considered both a purpose Price & Reichert, 2017; Taipale *et al.*, 2011; Baptiste, 2007), as an instrument (Gaitán *et al.*, 2015; Meyers *et al.*, 2013; Zelenski *et al.*, 2008, Chalofsky, 2003 in Arslan & Roudaki, 2019) of «Happiness Management».

Studies that have linked over the past decade to the management of happiness in the work with performance or productivity (thesis of Wright and Staw's Happy Productive Worker, 1999, widely analyzed by Ledford, 1999), support an association, in certain conditions, between happier employees and a better working result (Moccia, 2016; López & Fierro, 2015; Fisher, 2010). This is especially important in complex jobs that need creative solutions (Kang *et al.*, 2016), which could be applied to the current digital environment.

In this relationship, motivation is also involved. Cropanzano and Wright (2001) conclude that there is a significant relationship between depression or little happiness in the employee's work, and the low energy and motivation when performing the activity, leading to poor performance. The level of job performance is the result of the behaviors of people in the social and motivational context in which organizational work is carried out (van Scotter & Motowidlo, 1996, in Hosie *et al.*, 2019, p.10; Ravina *et al.*, 2017). The relationship is complex and multivariate. Zelenski *et al.* (*op. cit.)* argue that in this function emotions, personalities, tasks, motivations, among other factors, must be valued.

This study is based on a model in which motivation is an instrument for achieving happiness in the working environment (Figure 1). Exploratory analysis is carried out to detect motivation and demotivation in the current digital work context, which will guide management on which issues to pay the most attention to in order to achieve a further step towards the "Happy Company". And this, because it is a key role of management to maintain the emotional of its teams, detecting the nonconformities that may occur, the demotivation, in order to try to solve them or soften them as far as possible (Goleman, 1995, in Romero-Rodríguez *et al.*, 2019, p. 25), and because, as the RAE argues in one of the meanings of the term, happiness is the absence of stumbles and inconveniences.

Figure 1. Role of motivation in the 'Happiness Management' model



1.2. Work motivation in the digital age and Herzberg Theory

There are different definitions of motivation. In a broad sense, this is an emotional state that is generated in a person as a result of the influence on his behavior of certain factors (Koenes, 1996). In the business field, it refers to the process that explains the intensity, direction and persistence of an individual's effort to achieve a goal; the intensity being the effort put into the realization of the task, the direction of that effort, achievement or goal, and the persistence, the duration in which the effort is maintained (Robbins & Judge, 2009).

> It contributes to the degree of commitment of the person; it is a process that causes, activates, orients, energizes and maintains the behavior of individuals towards the realization of expected objectives (Lopez, 2005, p.26).

Table 1. New motivating factors in the digital age

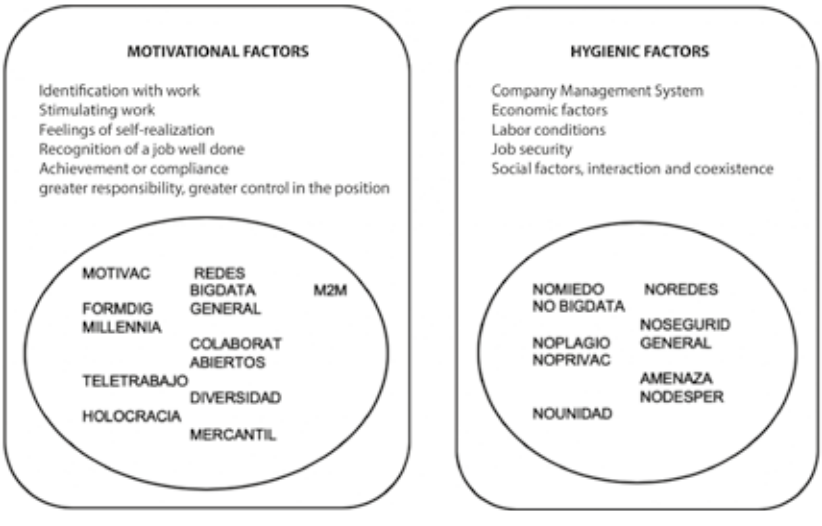
Question	Name of the variable
Information systems	
Digitization and automation of jobs increases employee motivation.	Motivational
contacting through networks expands my world as a worker.	Networks
having information through Cloud Computing or Big Data, makes my job easier.	Bigdata
under the current framework; in the face of the fourth industrial revolution (Industry 4.0), the reality "M2M" (machine to machine), i.e., the transmission and management of information between machines, will be positive for a more efficient development of work.	M2M
in general, using new digital technologies in my work motivates me.	General
i consider a continuous digital training/update policy for employees to be very motivating in today's era.	Formdig
working and relation contexts	
Working with colleagues from different degrees of digital culture (babby boomers, generation X, generation Z or millennials...) is motivating.	Millennia
i like that new technologies allow me to work collaboratively with other people.	Colaborative

Retos, 9(18), 2019

Question	Name of the variable
Information systems	
working in large, and open physical spaces that promote interrelationship and transparency between colleagues, and not in separate spaces, is motivating.	Open
having the ability to work from physical spaces other than my job or company (telework) is motivating.	Telework
i am motivated to work on diversity, called "hybridization contexts", i.e., with people from different areas of knowledge, of different cultures, with different points of view.	Diversity
i am motivated by the fact that organizations tend to "holocracy", i.e., to be able to dispense with positions or managers, given the preparation and autonomy of workers, and their linkage in multidisciplinary teams, or hybrids, that work collaboratively.	Holocracy

This work is based on the "Theory of Motivation" by Herzberg *et al.* (1959). There are several researches that have used this theory as a framework to this day in multiple sectors or professional fields (e.g., in Health: Albohoseini *et al.*, 2018, Petersen *et al.*, 2017, Torkaman *et al.*, 2017; in Education: Verma & Sharma, 2018, Emiroglu *et al.*, 2017, Escardibul & Afcha, 2017, Rizkallah & Seitz, 2017; in the Public Sector: Khoshnevis & Tahmasebi; in Hospitality: Cech *et al.*, 2015), and in diverse cultures (Warrier & Prasad, 2018; Rahman *et al.*, 2017). However, few people are still dedicated to the working environment in the age of digitization. Miraz *et al.* (2016) carry out a trait analysis on the websites of certain organizations, considering Herzberg's "Theory of Motivational Factors". This study aims to contribute, even with its limitations, to cover this gap in the literature.

Figure 2. "Digital" factors in Herzberg's Motivation Theory



Herzberg talks about two types of factors: those that create motivation (motivational), and those whose absence results in demotivation. Among experts, the terms motivation and satisfaction are mixed when mentioning the basis of this theory (Khoshnevis & Tahmasebi, 2015). The effect for the organization is that if it eliminates the factors that create dissatisfaction, i.e., it provides only motivational factors, without guaranteeing the satisfaction of its workers (Ghahremani *et al.*, 2014).

The originality of this work is that they are added to the two groups of traditional factors, both motivational and recreational, some of new appearance, typical of the digital age, and that, inevitably, form or will gradually form part of the usual conditions of the employment context (Figure 2).

Tables 1 and 2 show the items in which the above factors have been specified. Although this is a limited group, they have been discussed and profiled with experts consulted during the design of the questionnaire used, in the pretest phase, such as those most frequently experienced in the new work environment.

Table 2. New fears to be eliminated by motivational factors in the digital age

Question	Name of the variable
Information systems	
Digitization and automation of jobs increases employee motivation.	Motivational
contacting through networks expands my world as a worker.	Networks
having information through Cloud Computing or Big Data, makes my job easier.	Bigdata
under the current framework; in the face of the fourth industrial revolution (Industry 4.0), the reality "M2M" (machine to machine), i.e., the transmission and management of information between machines, will be positive for a more efficient development of work.	M2M
in general, using new digital technologies in my work motivates me.	General
i consider a continuous digital training/update policy for employees to be very motivating in today's era.	Formdig
Working and relation contexts	
Working with colleagues from different degrees of digital culture (babby boomers, generation X, generation Z or millennials...) is motivating.	Millennia
I like that new technologies allow me to work collaboratively with other people.	Colaborative
Working in large, and open physical spaces that promote interrelationship and transparency between colleagues, and not in separate spaces, is motivating.	Open
Having the ability to work from physical spaces other than my job or company (telework) is motivating.	Telework
I am motivated to work on diversity, called "hybridization contexts", i.e., with people from different areas of knowledge, of different cultures, with different points of view.	Diversity
I am motivated by the fact that organizations tend to "holocracy", i.e., to be able to dispense with positions or managers, given the preparation and autonomy of workers, and their linkage in multidisciplinary teams, or hybrids, that work collaboratively.	Holocracy

Retos, 9(18), 2019

2. Materials and method

The research focuses on the business of the Bay of Algeciras, an international business area that houses the second Spanish industrial hub and the first Mediterranean port by volume of goods; this structure requires a continuous digitization of core businesses and derivatives, with their advantages and disadvantages.

A sample of 180 entities is selected from the business by stratified random sampling. Each company is sent a cover letter of the study, requesting its collaboration and guaranteeing the anonymity of the data and its exclusive use for the research. The letter is addressed to the person responsible for the department or area of Human Resources so that it will be the area most sensitive to the subject matter. Of these, and after a clean-up process, there is a final sample of 114 elements.

This is an exploratory study, based on quantitative methodology. The instrument for the collection of workers' perceptions is an *ad hoc* designed questionnaire, because although the literature offers various models to measure motivation, placing it in a digital context is new. The questionnaire is previously validated, firstly, by pretest by HR experts who assisted in the clean-up, complementing its wording for greater consistency and intelligibility, and secondly by the Cronbach Alpha statistic reliability test, resulting from 0.896, being validated by being higher than 0.7 according to the literature (Corbetta, 2010).

The person to which the letter is addressed is asked to transfer it and the questionnaire to two employees of his organization, without putting conditions in terms of age, sex, age, position, training, department..., trying not to distort the sample.

In the questionnaire, the opinions are reflected through a Likert scale, with 1 being the minimum possible value, which implies "Completely disagree", and 5 the maximum value, which implies a "Completely agree". The data is processed with IBM SPSS.25 statistical software.

The participant is asked a series of questions to define his sociodemographic profile. These are nominal qualitative variables, whether binomial (sex) or multinomial (age, sector and size). To operate in their analysis, the categories are renamed, and since the sample barely exceeds one hundred cases, categories are added for some variables to contemplate a greater number of elements. These changes are indicated in Table 3 (1st transformation).

Table 3. Coding of sociodemographic variables

	Sociodemographic profile variables (1st transformation)	Sociodemographic profile variables (2nd transformation: binary)
Variable	**Categories**	**Categories**
Gender	0.Woman: 46 1.Man 68	
Age	0.No young (older than 35 years old): 65 1.Young (until 35 years old): 49	

	Sociodemographic profile variables (1st transformation)	Sociodemographic profile variables (2nd transformation: binary)
Variable	**Categories**	**Categories**
Sector	1. EDUCA: 31 (Education) 2. TPTE: 14 (Automotive,transport) 3. SECUND: 23 (Chemical Industry + Mining, Pharmaceutical, Sanitary + Construction) 4. SERVICE: 31 (Services to companies + Finance +Recreational, cultural, leisure services) 5. COMHOST: 15 (Food, hospitality, catering)	0. EDUCA+TPTE 1. Rest (SECUND+SERVICE+COMHOST)
Size	1.MICMIN (up to 49 workers): 43 2. SME (50 to 249 workers): 28 3. BIG (out of 250 or more workers): 43	0.GRANDE 1.MICMIN+SME

3. Results

3.1. First Results

All proposed motivational factors get average scores above 3, i.e., they are accepted as such. They clearly highlight the motivations generated by working in "hybridization contexts", with people from different areas of knowledge, from different cultures, with different points of view, and by enjoying a continuous formative policy that the company has for its employees. Their respective typical deviations are the lowest of the entire list (table 4).

Table 4. Main descriptive of the factors

	Mín.	Máx.	Media	Desv.		Min.	Max.	Mean	Desv.
Motivac	1	5	3.202	0.833	**Nofear**	2	5	3.246	1.052
Networks	2	5	4.009	0.804	**Nonetworks**	1	5	3.272	1.099
Bigdata	2	5	3.904	0.902	**Nobigdata**	1	5	3.465	1.138
M2M	2	5	3.570	0.704	**Nosecurity**	1	5	2.763	1.292
General	2	5	4.123	0.742	**Noplagiarism**	1	5	2.921	1.256
Formdig	3	5	4,246	0.659	**Noprivacy**	1	5	2.526	1.146
Millennia	1	5	3.921	0.864	**Trheat**	1	5	2.807	1.233
Colaborative	2	5	4.070	0.725	**Nodespersonalization**	1	5	3.105	1.100
Open	1	5	3.921	1.090	**Nounit**	1	5	2.570	0.902

Retos, 9(18), 2019

	Mín.	Máx.	Media	Desv.		Min.	Max.	Mean	Desv.
Telework	2	5	3.895	0.813					
Diversity	3	5	4.281	0.698					
Holocracy	1	5	3.202	1.099					

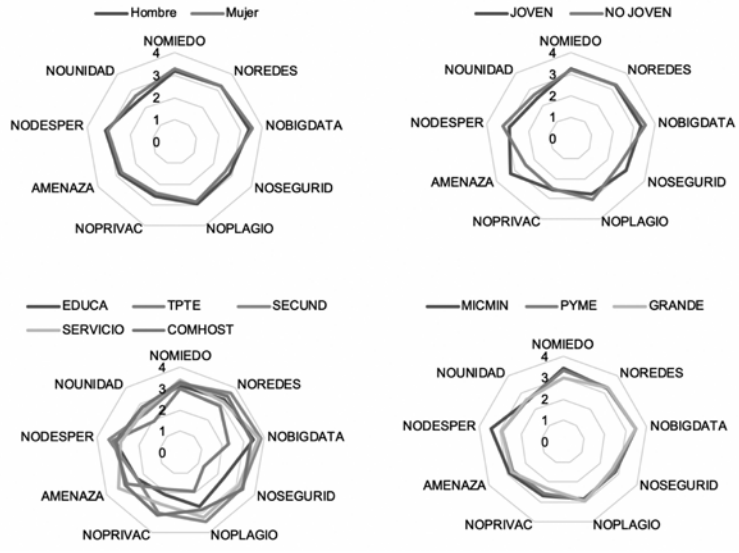
Those rated as fears to motivate are more irregular. The possibility of working with false data, the lack of personal closeness that entails communicating through networks, the fear of being replaced by computer systems and machines and the depersonalization that can lead to the progressive automation of tasks are the most feared. Factors related to lack of security, plagiarism, non-privacy of particular information, the feeling of being threatened by progressive automation and the risk that the commodification of tasks will lead to the loss of unity of the collective of workers show averages below 3. However, a common factor in all of them is that their typical deviations are also high, some participants do not consider them at all to fear, giving them 1, while others grant them the highest value 5.

It is therefore appropriate to consider, and this is what the present work focuses on, to see if there are different behaviors between the different categories of the different sociodemographic variables called profile variables, i.e., if it is possible to associate "digital" fears (dependent variables, if any) with certain genders or age, or to economic sectors, or to group of sizes of companies, where they can be experienced to a greater extent (independent or control variables).

3.2. Study of associations

In a first step, the means of the different categories of each of the variables are analyzed (Figure 3). It is observed that in the gender category the means of the various factors are similar, practically the graphic profiles overlap. For the two codified ages, young and non-young, there seems to be a clear difference in THREAT, more perceived by young people. It can also be checked in NOSECURITY, albeit more slightly. Diversity is greater in terms of the categories of the sector variable, where differences in NOBIGDATA, NOSECURITY, NOPLAGIARISM, NOPRIVACY, THREAT and NOUNIT are suspected. Transport and Education appear to be the sectors where such fears are minor; secondary and services have higher rate. With regard to the size of the company, those with less than 50 employees have more rate of NODESPERSONALIZATION, and less evidently in NOFEAR and NOPRIVACY, along with SMEs.

Figure 3. Mean comparison of motivational factors



By checking the contingency tables, the categories of the Sector and Size variables are grouped to convert them into binary variables. The process is logically done by joining in the same group the categories that have shown to have a similar distribution (table 3, 2nd transformation). From this transformation, normality tests are performed as the starting element of the association measures to be used. For all bicategorical distributions of profile variables, the Kolmogorov-Smirnov and Shapiro-Wilk tests show that these distributions are not normal (sig.<0.05).

The successive null hypotheses, and their corresponding complementary hypotheses are established from the results obtained in the mean calculation of the variables to be adapted for the different categories:

Gender:

H01n: no se da asociación entre la variable Sexo y la variable NOMIEDO. Las medias de las distribuciones de sus categorías son iguales.
H01n: No association between the Gender variable and the NOFEAR variable. The means of the distributions in the categories are the same.
H11n: there is association between the gender variable and the NOFEAR variable. The means of the distributions in the categories are not the same.

Similar hypotheses are raised with:

Age: *H02 and H12 (THREAT); H03 and H13 (NOSECURITY).*

Sector:

Retos, 9(18), 2019

H04 and H14 (NOBIGDATA); H05 and H15 (NOSECURITY); H06 and H16 (NOPLAGIARISM); H07 and H17 (NOPRIVACY), H08 and H18 (THREAT); H09 and H19 (NOUNIT).

Size:

H010 and H110 (NODESPERSONALIZATION); H011 and H111 (NOFEAR); H012 and H112 (NOPRIVACY).

For the contrast of these pairs of obtained hypotheses, Mann-Whitney's non-parametric U test is performed, which leads to rejecting some of the null hypotheses, indicating association. This, along with the contingency tables, the Chi-square test for the calculation of the correlation coefficient (A) and the risk estimate (RR) lead to a few first interpretations:

Gender:

H11.3: is related with the variable NOBIGDATA.
Chi-Square: Confirms the statistical significance (Sig.<0.05): 0.042
Interpretation (RR): A man fears 2,952 times more of this issue than a woman.

H11.8: relation with NODESPERSONALIZATION.
Chi-Square:0.004
Interpretation: A woman fears 3,241 times more with this variable than a man.

Age:

H12: relation with THREAT.
Chi-Square:0.008
Interpretation: A young person (up to 35 years old) fears 2,968 times more of this issue than a non-young person,

Sector:

Relation with NONETWORKS.
Chi-Square: 0.008
Interpretation: a person working in sectors other than Education and Automotive and Transport fears 2,879 times in this topic than a person working in these sectors.

H15: relation with NOSECURITY.
Chi-Square: 0.000
Interpretation: a person working in the Education and Automotive and Transport sectors fears 5,882 times more in this topic than a person who does not work in these sectors.

H16: relation with NOPLAGIARISM.
Chi-Square: 0.002
Interpretation: a person working in the Education and Automotive and Transport sectors fears 3,428 times in this topic than a person who does not work in these sectors.

H17: relation with NOPRIVACY.
Chi-Square: 0.014
Interpretation: a person working in the Education and Automotive and Transport sectors fears 2,684 times more in this topic than a person who does not work in these sectors.

Size:

H111: relation with NOFEAR.
Chi-Square: 0.009
Interpretation: a person working in micro companies or small and medium-sized enterprises fears 3,032 times more in this topic than a person who works in a large company.

H112: relation with with NOPRIVACY.
Chi-Square: 0.032
Interpretation: a person working in a large company fears 2,374 times more in this topic than a person who does it in micro-enterprises or in small and medium-sized enterprises.

The number of participants is slightly higher than 100 in the total sample, not so in subsamples by categories. However, the decision to make the hypothesis contrast is made as if the distributions were normal by using the t-Student mean comparison test between the distributions of each profile variable. The results agree for the Sex, Age, and Sector variables, with equal or similar ρ, confirming statistical significance. There is only a match for the Size variable, i.e., the test only points to relation for the variable NOPRIVACY.

Risk has been used, RR, as a measure to know the influence of one category over the other. However, it is possible to deepen on other types of studies to confirm or not, these first conclusions. To do this, the binary logistic regression of each dependent variable is used according to the first conclusions for each category of the profile or control variables. These have previously been categorized, taking values 4 and 5 as "Does fear", and the rest, 1, 2 and 3, as "Does not fear".

Table 5. Summary of Association Measures Found

Variable profile	Dependent variable	r	OR	IC95% de la OR		Predicted	
				Lower	Upper	0	1
Sex	Nobigdata	.048	.339	.116	.991	100%	0.00%
	Nodespersonalization	.005	3.239	1.435	7.313	100%	0.00%
Age	Threat	.009	.337	.149	.762	100%	0.00%
Sector (recoded)	Nonetwork	.009	.347	.158	.766	50.8%	73.6%
	Nosecurity	.000	5.875	2.556	13.505	79.7%	60.0%
						Total: 70.2%	
	Noplagiarism	.002	3.429	1.561	7.528	72.7%	56.3%
	Noprivacy	.015	2.685	1.208	5.971	73.5%	42.9%
Size	Nofear	.010	.330	.141	.769	100%	0.00%
	(recoded)	.034	2.374	1.067	5.283	73.5%	46.2%

Retos, 9(18), 2019

Instead of RRs, logistic regressions show the ORs, i.e., the relationship between the opportunity for the event to occur in the subgroup encoded as 1 for each control variable, i.e., that its members are afraid of the circumstance studied, as faced with the opportunity for it not to occur. Correlation coefficients, r, OR, the lower and higher values, as well as the percentage of successfully predicted values (which match the real ones) in the case of integrating that variable into a dependency model or association are exposed in the Table 5.

For dependents: NOBIGDATA, as regards Gender, THREAT, in terms of Age, NONETWORKS, in relation to the Sector and NOFEAR, as regards Size, its lower and upper margins, by not reaching the unit, indicate a reduction in the strength or possibility of associations being studied.

In the relation between NODESPERSONALIZATION and gender, the unit is not covered by that margin. However, this is relatively broad, about six points. The variable has high specificity, but low sensitivity: using it to predict the response to the NODESPERSONALIZATION variable would hit 100% of the values when it comes to women, but 0% for men. Therefore, it is not a good predictor variable. The same is true of other possible relationships.

In the case of dependent NOSECURITY and its potential association with the Sector, r and OR agree with those obtained in the first estimates. The margin between the lower and upper values is, however, really wide. Its predictor capacity, even though it is the largest of the entire panel being analyzed - 79.7% for those belonging to Education, Automotive and Transport, and 60.0% for those who do not belong to them- is still low 70.2%.

Finally, as for the NOPRIVACY variable, the measures r and OR are practically matched with those found in Chi square and RR study for the variables control, sector and size. Its margins are the smallest, with less than five points of difference. However, low predicting capabilities continue to be in both cases. Could a modelling of this variable be considered in relation to the Sector and Size control? The low prediction does not provide successful theoretical model. Even so, and taking into account the possible phenomena of interaction and confusion with the other profile variables, it proceeds to its study, since establishing an equation for motivation will allow managers to intervene when the level is required (Quijano and Navarro, 2012).

3.3. Possible logistic regression model for NOPRIVACY

In principle, the model should contain only two control variables, sector and size. After analyzing the possible interactions between Sector and Gender, or Sector and Age, and between Size and Gender, or Size and Age, none of the cases presents clear evidence of interactions. The gender variable is valued to be included in the equation or model, because the interaction term Size*Gender is the only one with statistical significance (0.019).

Once the interaction is discussed, the possibility of confusion between the control variables is studied. After assessing the set of recommendations given by the experts (Aguayo & Lora, 2007) to make a decision on this (table 6) it is concluded that the age variable causes confusion in that of Sector, so it will be included in the model to be treated.

Table 6. Study of the confusion possibility between variables

Conditions	Sector and Gender	Sector and Age	Size and Gender	Size and Age
OR	Before 2.685 Now 2.744	Before 2.685 Now 4.044	Before 2.374 Now 2.353	Before 2.685 Now 2.967
OR Variation >10%	No	Yes	No	Yes
Non-substantial change in the confidence interval	Yes	NOo. It Increases	SÍ	NO. Lo aumenta.
No modification in Wald's significance statistics	Yes	Yes	Yes	Yes
Statistical significance of the confusion variable	No	Yes (0.047)	No	No
The confidence interval does not contain the null value (=1)	NO	SÍ (por muy poco)	NO	NO
Decision	Reject confusion	Reject confusion	Reject confusion	Reject confusion

Table 7 shows the main indicators evaluating the goodness of an adjustment made by logistic regression. Although none of the proposals create a model that complies with all of them, it is the third the one that is closer, i.e., once the starting control variables, Sector and Size are added to the one that interacts with Size (Sex) and the one that causes confusion with Sector (age).

Table 7. Indicators of the model variables

		B	Standard error	Wald	gl	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1a	AGE(1)	-1.22	0.498	5.999	1	0.014	0.295	0.111	0.784
	SECTOR(1)	1.359	0.492	7.633	1	0.006	3.891	1.484	10.202
	SIZE(1)	0.955	0.466	4.197	1	0.04	2.598	1.042	6.478
	GENDER(1)	-0.231	0.421	0.3	1	0.584	0.794	0.348	1.813
	Constant	0.222	0.375	0.353	1	0.553	1.249		

Although the sex variable has no statistical significance, even for very little, the rest does, confirming that they justify the dependent variable NOPRIVACY. The greatest strength in this relationship is created by the variable Sector (Exp (B)= 3.891, the furthest from the unit, followed by Size (Ex(B) =2.598, which were the variables indicated from the start of this analysis as the most predicted capacity for NOPRIVACY.

Looking at the sign of B, the meaning of the explanation or causal relation, can be observed that a non-young person (over 35 years old) fears this issue more

Retos, 9(18), 2019

than a young person; that people who do not work in the Education and Automotive and Transport sectors are the most fearful in this regard; and that those that do so in micro-enterprises and SMEs are more so than those working in big enterprises.

Nevertheless, the model would suffer adequate goodness in its fit, given the low percentages of successful prognosis, so it is decided not to build it.

4. Conclusions and discussion

The study shows a clear acceptance of the proposed motivational factors, and a greater difference in the assessment of "digital fears", especially when categorized by economic sectors.

As for the motivations, no studies have been found that have included issues similar to those raised in this research, located in the digital age. However, research from recent years, such as Shannon's (2017), confirms that honest and open peer communication, as well as recognition of the work well done are two of the most powerful motivators (in this case, in the public Australian sector). Set in technology, Li *et al.* (2004) had used Herzberg's Theory to measure the development of the data processing service, both its economic possibilities and the acceptance of its usefulness by the market, at its various stages. However, they did not address the motivational factors or the factors to be adapted for a current worker in the digital age. Much more recently, Mamedov *et al.* (2019) concern the importance of the Russian and Azerbaijani employees and employers in the desire or motivation of Russian and Azerbaijani employees and employers to develop their own human capital and that of the company, the various visions or characteristics of the different generations of colleagues they share with: Generation X, Generation Y (millennials) and Generation Z, within the framework of the Fourth Industrial Revolution. As a feature of today's times, Jarupathirun and De Gennaro (2018) analyze the rotation level in the employment in Bangkok, Thailand, and, through herzberg's Theory, relate it to aspects at work. Thus, they conclude that relationship with colleagues, recognition, job security and remuneration are the most important factors in choosing to leave a company. Much less impact have issues such as achievement, the importance of work, growth, company policy and relationships with supervisors. Abolhoseini *et al.* (2018) conclude that quality at work, responsibility assumed, category of responsibility, safety and wages are the most valuable motivators among the workers consulted (rehabilitation therapists in the Tehran area). This study also shows a clear relationship between the sociodemographic variable age and the level of work motivation. Warrier *et al.* (2018) frame their analysis in a work activity typical of the digital age, the IT (Information Technology) sector specifically in India, finding that, contrary to what Herzberg's own Theory contends, motivational factors play a more important role in predicting job satisfaction in this sample, an issue attributed to cultural differences versus the West. But again, studies take the traditional factors of Herzberg's Theory, without contributing, as this work does, to new factors typical of the implementation of the digital age. Escardibul and Afcha (2017) include in their study new variables, typical of the environment, social and work of a university doctor, but none related to the digital age.

This paper concludes that there is an association between certain sociodemographic profile variables and several of the fears discussed, especially strong between the industry-sized variables in terms of fear of losing privacy in the face of digital connection over networks at work. Using a possible model to represent this relationship, it is decided to discard it by poor adjustment in the forecast of the values.

The work is not without limitations. Thus, the items do not have a firm foundation in the literature, given the novelty of the topic, although it has been solved by the intervention of experts, so it is a relative limitation. The sample, even exceeding one hundred, is made up of a small number of participants. It would be appropriate to work with larger samples, as well as in other territories and at different moments over time, to study the possible change in the behavior on the same topic. On the other hand, by grouping quantitative variables into two categories: 'Does fear', or 'Does not fear' it is known about the loss of some of the information, although it is the path taken to be able to carry out a logistic regression analysis.

In addition to what has already been mentioned on similar studies with other population samples, an alternative analysis of the information collected is proposed, which is that of an exploratory factorial analysis of the variables, adding them in constructs of more information, and a subsequent confirmatory factorial analysis; and this is both for motivational factors and for those requiring motivational measures. The dependency or association would last be carried out, starting from the new variables resulting from these constructs.

However, being a first approximation, it is novel to provide characteristic factors of the digital working environment, and in particular from the approach of Herzberg's Motivation Theory. Studies like this can be useful to all kinds of managers, as it is to be assumed that every manager seeks to achieve a healthy and motivating environment and would activate motivational measures to alleviate those fears. But above all, it will serve those who raise their work from the "Happiness Management" model, under the conviction that eliminating dissatisfaction is part of the path to a greater performance.

References

Abolhoseini, E., Mobaraki, H., Kamali, M., *et al.* (2018). Relationship Between Performance Evaluation and Therapists' Job Motivation of Rehabilitation Centers and Public Hospitals of Tehran Based on Herzbergs' Two-Factor Model. *Archives of Rehabilitation*, *18*(4), 316-327. https://doi.org/10.21859/JREHAB.18.4.6

Aguayo, M., & Lora, E. (2007). Cómo hacer una regresión logística binaria "paso a paso": análisis multivariante. Docuweb FABIS, Recuperado de https://bit.ly/2ZgksQ5 [Fecha de consulta: 14 de mayo de 2019].

Arslan, M., & Roudaki, J. (2019). Examining the role of employee engagement in the relationship between organisational cynicism and employee performance. *International Journal of Sociology and Social Policy*, *39*(1-2), 118-137. https://doi.org/10.1108/IJSSP-06-2018-0087

Baptiste, N.R. (2007). Tightening the link between employee well-being at work and performance. *Management Decision*, *46*(2), 284-309. https://doi.org/10.1108/00251740810854168

Bashir, M., Saleem, A., & Ahmed, F. (2019). Akhuwat: Measuring Success for a Non-profit Organization. *Asian Journal of Management Cases*, *16*(1), 100-112. https://doi.org/10.1177%2F0972820119825973

Cech, P., Beranek, M., & Chromy, J. (2015). Job Satisfaction of Managers Working for Hotels And Hotel Chains in the Czech Republic. En: *26th International-Business-Information-Management-Association Conference*, November, 11-12. Innovation Management and Sustainable Economic Competitive Advantage: from Regional Development to Global Growth Vols. I-V, pp. 668-676. Recuperado de https://bit.ly/2Wyc55F

Corbetta, P. (2010). *Metodología y Técnicas de Investigación Social*. Madrid, España: McGraw-Hill/Interamericana.

Cropanzano, R., & Wright, T.A. (2001). When a "Happy" Worker Is Really a "Productive" Worker: A Review and Further Refinement of the Happy-Productive Worker Thesis. *Psychology Journal Practice and Research*, *53*(3), 182-199. https://psycnet.apa.org/doi/10.1037/1061-4087.53.3.182

Emiroglu, O., Guneyli, A., & Burgul, N. S. (2017). Motivational Sources of Teachers in a Developing Country. *Revista de Cercetare si Interventie Sociala*, *57*, 51-66. https://search.proquest.com/docview/1923729164?accountid=32861

Escardibul, J.-O., & Afcha, S. (2017). Determinants of the job satisfaction of PhD holders: an analysis by gender, employment sector, and type of satisfaction in Spain. *Higher Education*, *74*(5), 855-875. https://doi.org/10.1007/s10734-016-0081-1

Fisher, C. (2010) Happiness at work. *International Journal of Management Review*, *12*(4), 384-412. https://doi.org/10.1111/j.1468-2370.2009.00270.x

Gaitan, I., Breton, D. C., Urbano, H. L. C., Mahecha, C., & Arteaga, M. (2015). Todo es cuestión de actitud. Gestión de la felicidad. *Harvard Deusto Business Review*, 6-17. Recuperado de https://bit.ly/2WsYqrJ [Fecha de consulta: 30 de mayo de 2019].

Ghahremani Germi, N., Ghahremani Germi, M., & Delghavi, E. (2014). The effect of management factors and job satisfaction on human resources efficiency: A case study of paramedical employees of public hospitals in Ardabil. *International Journal of Organizational Leadership*, *1*(1), 18-37. http://dx.doi.org/10.33844/mihs.2015.60247

González-Díaz, J., Ochoa-Dearco, E., & Cardona-Arbeláez, D. (2018). Modelo conceptual de Gerencia de la Felicidad. *Orbis. Revista Científica Electrónica de Ciencias Humanas*, 17-32. Recuperado de https://bit.ly/2WsYxDA [Fecha de consulta: 20 de mayo de 2019].

Herzberg, F., B. Mausner, B. & Snyderman, B. B. (1959). *The motivation to work*. New York: Wiley.

Hosie, P.; Sharma, P., & Kingshott. R. P.J. (2019). Happy-performing managers thesis Testing the mediating role of job-related affective outcomes on the impact of role stressors on contextual performance. *International Journal of Manpower*, *40*(2), 356-372. https://doi.org/10.1108/IJM-04-2018-0124

Jarupathirun, S. & De Gennaro, M. (2018). Factors of work satisfaction and their influence on employee turnover in Bangkok, Thailand. *International Journal of Technology*, *9*(7), 1460-1468. https://doi.org/10.14716/ijtech.v9i7.1650

Kang, J. H., Matusik, J. G., Kim, T. Y., & Phillips, J. M. (2016). Interactive effects of multiple organizational climates on employee innovative behavior in entrepreneurial firms: A cross-level investigation. *Journal of Business Venturing*, *31*(6), 628-642. https://doi.org/10.1016/j.jbusvent.2016.08.002

Khoshnevis, H., & Tahmasebi, A. (2016). The Motivation System in a Governmental Organization. En McKenna, B., Ardabili, F. S., y Faghih, N. (Eds.), *3rd International Conference on New Challenges in Management and Business: Organization and Leadership, 2 May 2016*, (pp. 212-218). Dubai, UAE. https://doi.org/10.1016/j.sbspro.2016.09.027

Koenes, A. (1996). *Gestión y motivación del personal*. Madrid, España: Ediciones Díaz de Santos.

Li, R.P., Rong, R., & Lu, T.J. (2004). Managing the relationship of technology and market in different stages of data service development. En *6th International Conference on Computer Communication (ICCC 2004)*, September 15-17. Beijing, Republic China.

López, J.P., & Fierro, I. (2015). Determinantes de la felicidad en los administradores: una investigación realizada en las farmacias del Grupo Difare en Ecuador. *Universidad & Empresa*, *17*(29), 181-211. https://dx.doi.org/10.12804/rev.univ.empresa.29.2015.08

López, J. (2005). Motivación laboral y gestión de recursos humanos en la teoría de Frederick Herzberg. *Rev Invest Fac Ciencias Administrativas UNMSM*, Julio 2005, 25-36. Recuperado de https://bit.ly/2Km346j [Fecha de consulta: 30 de abril de 2019].

Mamedov, Z. F.; Mineva, O. K.& Glinchevskiy, E. I. (2019). Innovative Approach to Human Capital Management under conditions of strong turbulence of Fourth Industrial Revolution. En Ibrahimov, M., Aleksic, A., y Dukic, D. (Eds.), *37th International Scientific Conference on Economic and Social Development- Socio Economic Problems of Sustainable Development*, febrero 14-15, (pp. 1518-1525). Baku, Azerbaijan. Recuperado de https://bit.ly/2MFhqDC

Meyers, M.C., van Woerkon, M., & Bakker, A.B. (2013). The added value of the positive: a literature review of positive psychology interventions in organizations. *European Journal of Work and Organizational Psychology*, *22*(5), 618-632. https://doi.org/10.1080/1359432X.2012.694689

Miraz, M., Excell, P.S., & Maaruf, A. (2016). User interface (UI) design issues for multilingual users: a case study. *Universal Access in the Information Society*, *15*(3), 431-444. https://doi.org/10.1007/s10209-014-0397-5

Moccia, S. (2016). Felicidad en el trabajo. *Papeles del Psicólogo*, *37*(2), 143-151. Recuperado de https://bit.ly/2R3Iond [Fecha de consulta: 30 de mayo de 2019].

Petersen, E., Wascher, M., & Kier, K. (2017). Analysis of pharmacy student motivators and deterrents for professional organization involvement. *Currents in Pharmacy Teaching and Learning*, *9*(4), 543-550. https://doi.org/10.1016/j.cptl.2017.03.024

Price, S., & Reichert, C. (2017). The importance of continuing professional development to career satisfaction and patient care: meeting the needs of novice to mid-to late-career nurses throughout their career Span. *Administrative Sciences*, *7*(2). https://doi.org/10.3390/admsci7020017

Quijano, S.D., & Navarro, J. (2012). La autoeficacia y la motivación en el trabajo. *Apunt. Psicol*, *30*(1-3), 337-349. Recuperado de https://bit.ly/2I5kWmA [Fecha de consulta: 15 de mayo de 2019].

Rahman, K.-U., Akhter, W., & Khan, S.U. (2017). Factors affecting employee job satisfaction: A comparative study of conventional and Islamic insurance. *Cogent Business & Management*, *4*(1). https://doi.org/10.1080/23311975.2016.1273082

Ravina, R., Villena, F., & Gutiérrez, G. (2017). Una aproximación teórica para mejorar los resultados de innovación en las empresas desde la perspectiva del "Happiness Management. *Retos. Revista de Ciencias de la Administración y Economía*, *7*(14), 113-129. http://dx.doi.org/10.17163/ret.n14.2017.06

Rizkallah, E. G., & Seitz, V. (2017). Understanding student motivation: a key to retention in higher education. *Scientific Annals of Economics and Business*, *64*(1), 45-57. https://doi.org/10.1515/saeb-2017-0004

Robbins, S., & Judge, T. (2009). *Comportamiento Organizacional. Decimotercera edición*. México: Pearson Educación.

Romero-Rodríguez, L.M., Castillo-Abdul, B., & Ravina, R. (2019). Comunicación para la efectividad laboral y el Happiness Management: revisión crítico-analítica de la literatura. *Revista Mundo Indess*, *1*(1), 17-27. Recuperado de https://bit.ly/2EX2R8c [Fecha de consulta: 10 de mayo de 2019].

Shannon, E.A. (2017). Motivating the workforce: Beyond the 'two-factor' model. *Journal of the Australian Healthcare & Hospitals Association*, *43*(1), 98-102. https://doi.org/10.1071/AH16279

Taipale, S., Selander, K., Anttila, T., & Nätti, J. (2011). Work engagement in eight European countries: the role of job demands, autonomy, and social support". *International Journal of Sociology and Social Policy*, *31*(7-8), 486-504. https://doi.org/10.1108/01443331111149905

Torkaman, F., Farhang, S., Zakerian, S.A., *et al*. (2017). A study on the effect of job burnout and stress on job satisfaction among teachers of exceptional schools. *Pharmacophore*, *8*(5), 18-24. Recuperado de https://bit.ly/2F2vErU [Fecha de consulta: 24 de abril de 2019].

Verma, P., & Sharma, D. (2018). Quality of Work Life in Academics with reference to Motivational Theories. *Pacific Business Review International*, *11*(4), 159-165. Recuperado de https://bit.ly/2K4DkOB [Fecha de consulta: 10 de mayo de 2019].

Warrier, A. G., & Prasad, R. (2018). Motivators, Hygiene Factors and Job Satisfaction of Employees in IT Sector in India. En *7th International Conference on Computing, Communications and Informatics (ICACCI), September 19-22*, pp. 477. Bangalore, India; IEEE. https://doi.org/10.1109/ICACCI.2018.8554403

Zelenski, J.M., Murphy, S.A., & Jenkins, D.A. (2008). The Happy-Productive Worker Thesis Revisited. *Journal of Happiness Studies*, *9*(4), 521-537. https://doi.org/10.1007/s10902-008-9087-4