

TEACHING AND LEARNING TO BE HAPPY: ECONOMETRIC EVIDENCE IN THE ENTREPRENEURS OF SPAIN BEFORE COVID-19

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ABSTRACT

This paper discusses what the education-happiness link is like between Spanish entrepreneurs. The study is conducted from a survey by the Sociological Research Center with a total of three hundred and fifty-five valid responses. Six educational levels are considered as groups and are associated with seven categories in which each person's consideration of happiness is divided. A categorical data analysis is performed from the balanced worth vector (BWW), obtaining an ordering of educational levels based on their consideration of happiness. The conclusion reached is that this ordination obtained coincides with a ordination by educational levels, being those who have completed university studies who have the greatest consideration of their own happiness, and those entrepreneurs who only exceeded primary education those who have a worse consideration of their own happiness. For the rest of the educational levels, the ordering is maintained. This education-happiness relationship remains an open question to this day, as well as knowing the kind of effect that education has on the happiness of the labour market population, which opens up the need for new empirical studies on this topic.

Keywords: Entrepreneur, Happiness, Education, Balanced Worth Procedure (BWP), University.

INTRODUCTION

The lack of a significant volume of entrepreneurs of opportunity constitutes for societies a focus of social and economic problems, especially in times of recession, such as the one that has brought Covid-19 to the globalized world (Nicola et al., 2020). As it is known, times of financial crisis are characterized by the slowdown in the productive sector, the sharp drop in demand for products and services, and the increase in social inequalities. The literature shows us through robust empirical studies that this environment does not favor the emergence of new technology-based companies aimed at improving the general welfare of citizens (e.g. Civera et al., 2020; Kaufmann & Reuveni, 2020). This structural phenomenon is usually solved with a massive injection of public spending. This will help revive declining economies, provided that government actions are launched to finance an educational system that promotes creativity, disruptive thinking and happiness for students in the digital age (Chumaceiro et al., 2020).

In this way, ecosystems can be built based on the guiding principles of inclusive capital, technological advances and citizen participation (Hernández-García de Velazco et al., 2019). To achieve this goal there are many ways, one of them is the creation of entrepreneurial states. Behind this concept is hidden that entrepreneurs, whether individual or collective in nature, play a very important role in the economic growth of their territories as catalysts for innovation,

sustainability and well-being (Hernández-García de Velazco et al., 2020; Mazzucato, 2019). Therefore, the governments of the 21st century should focus on actively fueling the entrepreneurial culture in youth, not as a simple job search, but as a great opportunity to value their abilities, skills and intangible resources (Xiong et al., 2020). A good example of the latter is happiness. This dynamic and multidimensional term prompted the emergence of the discipline of the happiness economy within the area of the welfare economy in the mid-seventies of the last century (Fons et al., 2020). From this moment to the present, most of the statistical and theoretical studies carried out in this particular social science have been characterized by using the expressions satisfaction or well-being as synonyms for the word happiness (Núñez-Barriopedro et al., 2020; Carlquist et al., 2017; Diener, 2000).

Under this scope the concepts of happiness management as well as an extensive number of bibliographic productions where they show that happy employees are more productive and resilient emerge (Salas-Vallina et al., 2020; Paul et al., 2019; Sánchez-Vázquez & Sánchez-Ordóñez, 2019). Faced with this type of work, other authors have paid special attention to showing that entrepreneurs are happier than salaried workers. This is basically motivated because they have a greater degree of freedom in the daily performance of their job (Bencsik & Chuluun, 2019; Dijkhuizen et al., 2019).

However, it is striking that there is no solid body of studies describing how socio-demographic factors affect the happiness of the group that is the object of this study (Ravina-Ripoll et al., 2020). As a result of the above, it becomes interesting to ask: is education a vector that predicts the happiness of entrepreneurs? The possible theoretical answers given to this question may perhaps serve to formulate new public education policies that proactively stimulate the entrepreneurial spirit of the students. This requires, among other things, a collaborative learning process that gravitates around the affective emotions and corporate happiness of the students of the post-Covid-19 era.

After this introduction, the next section will present the research methodology and hypotheses, the empirical study carried out and the evaluation of the results achieved. And finally, the most relevant conclusions of the work carried out are shown, as well as the limitations and future lines of research.

RESEARCH METHODOLOGY AND HYPOTHESIS

For the methodological realization of this academic work, an analysis of categorical data has been carried out. The primary information has been extracted from the database offered by the study of Public Opinion and Fiscal Policy (XXXVI) carried out by the Center for Sociological Research (CIS) of Spain, between the months of September and October of the year 2019 (CIS, 2019), being the sample size of 2464 people of both genders. Regarding the applied sampling procedure, it has been multistage, stratified by conglomerates, with the primary sampling units (municipalities) and the secondary units (sections) selected in a proportional random way, and the last units (individuals) by random routes and gender and age quotas (Ahn & Mochón, 2010).

The strata have been formed by the crossing of the 17 autonomous communities and the two autonomous cities, with the size of the habitat, divided into 7 categories: less than or equal to 2,000 inhabitants; from 2,001 to 10,000; from 10,001 to 50,000; from 50,001 to 100,000; from 100,001 to 400,000; from 400,001 to 1,000,000, and more than 1,000,000 inhabitants.

The sampling error for a confidence level of 95.5% (two sigmas), and $p=q$, the real error is $\pm 2.0\%$ for the sample as a whole, and in the case of simple random sampling. Based on what has been said, it is convenient to indicate, on the one hand, that the CIS survey was carried out through a questionnaire that was passed to the interviewees at their homes. This is the most common form used by large government research centers, precisely because it provides the most powerful communication context to guarantee the quality of the information collected (Francés et al., 2014).

On the other hand, this work took as a study the individuals who carry out an activity as an entrepreneur or self-employed in Spain during the year 2019. For this, the authors of this article have decided to consider as entrepreneurs those people who have answered item forty-eight (P48) of the questionnaire that said: "*Who are the people who contribute the most to family income as ...?*", in its categories three (businessman or professional with employees) and four (professional or self-employed worker) (without employees).

To measure the happiness factors and educational level of this particular economic agent, the following two questions were taken as a measure. Regarding the happiness dimension, item number 2 (P2) of the questionnaire was chosen where it is stated: "*In general terms, to what extent do you consider yourself a happy or unhappy person?*"; which is graduated using a Likert scale where the value 0 means "*completely unhappy*" and the value 10, "*completely happy*". Regarding the level of studies parameter, question number forty two point A (P42A) has been chosen: "*What are the highest level studies that you have completed, that is to say, that you have the corresponding official degree?*", whose ranges have been restricted between value 1, which means less than 5 years of schooling, and value 14, doctorate.

Once the variables of our research have been selected, the influence of the parameter level of studies on the happiness of entrepreneurs in the digital society is examined. To this end, the Balanced Worth Procedure (BWP) methodology will be applied, as it adapts well to the nature of our study and the available sample size (Herrero & Villar, 2013). In this way, the hypothesis of our study can be empirically tested:

H1: The level of academic education positively affects the happiness of entrepreneurs, understood as a multidimensional and dynamic construct that promotes the productive development of the territories

RESULTS

For the empirical investigation of this article, the 355 responses given by entrepreneurs in the barometer of September 2019 on their state of happiness have been chosen as a sample. This record is obtained after deleting the 38 answers that did not know or did not answer. After this data cleansing, the next step was to detect what level of academic studies the interviewed entrepreneurs possess, based on the question discussed in the previous section: "*What are the highest level studies that you have completed? That is to say, who has the corresponding official qualification?*" Based on the answers given to the aforementioned question, six stratification levels have been created based on the old educational model in Spain. These are primary education, secondary education, and intermediate vocational training, and higher vocational training, baccalaureate and university studies. Based on this justification and as expressed in a few lines above, the population that is the object of this work is defined and configured as shown in Table 1.

Education	Happiness							Total
	Com. Happy	Very Happy	Happy	Quite Happy	A little bit happy	Unhappy	Com. or Very Happy	
Primary Education	7	14	22	23	8	8	1	83
Secondary Education	15	9	28	16	12	8	4	92
Intermediate Vocational Training	4	3	3	5	3	0	0	18
Higher Vocational Training	9	5	27	11	7	1	0	60
Baccalaureate	6	4	10	11	2	1	0	34
University Studies	10	15	23	13	5	2	0	68
Total	51	50	113	79	37	20	5	355

In light of these numerical data, it is possible to begin to analyze the influence that the variable education exerts on the happiness of entrepreneurs in today's digital society. And thus be able to contrast the working hypothesis exposed in the methodological section. For this, the modern Balanced Worth Procedure (BWP) econometric technique has been used; whose authors are Herrero & Villar (2018).

As it is noticed by Pita & Torregrosa (2020), this new methodology provided by Herrero & Villar (2018) is specifically designed to compare distributions of categorical data.

Herrero & Villar (2018) pointed that this new methodology differs from previous studies, as the most usual ways of evaluating this type of problems was either by recurring to some notion of stochastic dominance or to some scoring rule that attaches weights to the different categories and evaluates performance in terms of weighted averages. Main inconveniences of both evaluation methods are: it can be only said if one distribution is better than the other but not how much better and evaluation results may be too much dependent on the scores attributed to the different categories.

BWP has been used in empirical studies not only linked to works directly associated with COVID-19 (Herrero & Villar, 2020a), but also in research in social areas as different as the labor market (Herrero & Villar, 2019), education (Herrero & Villar, 2018) or job satisfaction (Pita & Torregrosa, 2020). In this sense, it cannot be ignored that at the beginning of this year Herrero & Villar (2020b) carried out an extension of the BWP to the multidimensional context with the name of Multidimensional Balanced Worth (MBW).

Once this small clarification has been made, underline that the information required to apply the BWP is quite simple. This is to build the relative frequency matrix from the observed data, in our case the values of happiness and education. For its correct application, and for the purposes of its algorithmic resolution, the categories must be ordered from best to worst. A priori nothing else is required because the Valencian Institute for Economic Research (IVIE) provides a free access algorithm that allows calculating the BWP taking the relative frequencies (IVIE, 2018). In this work, the BWP analysis was applied, which allows us to compare the distributions of m different groups (in our case educational levels, $m=6$) in n categories (the consideration of happiness of each person, $n=7$).

Based on what was said a few lines above, Figure 1 was designed in order to graphically represent the ordered matrix of the relative frequencies of our study according to the quantitative information that appears in Table 1.

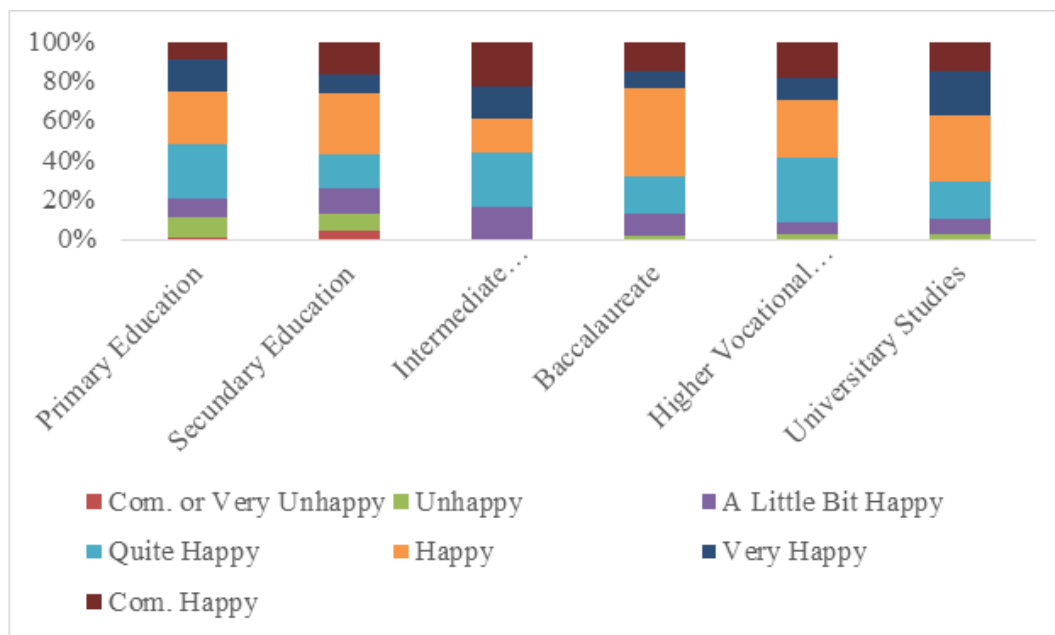


FIGURE 1
ORDERED MATRIX OF RELATIVE FREQUENCIES OF EDUCATIONAL LEVEL IN RELATION WITH THE DEGREE OF HAPPINESS OF THE ENTREPRENEURS

Advancing in the empirical analysis of our work, the BWP analysis was carried out in order to examine the education-happiness construct in the group that is the object of this academic work. The results obtained are presented ordered in Table 2.

Educational Levels	BWV
University Studies	1,22,606
Intermediate Vocational Training	1,07,135
Baccalaureate	1,04,299
Higher Vocational Training	1,03,750
Secondary Education	0,83482
Primary Education	0,78728

Table 2 shows how those people, who have a higher consideration of their happiness and have a higher value in their BWP component, are those who completed university studies. On the other hand, those who only attended Primary Education are those who have the least regard for their happiness. The difference between the values obtained for these two groups shows a range of 0.43878 points. The most recent application studies of this BWP analysis complete the

information provided by the range with the calculation of the coefficient of variation, which in our case is 14.83%, a value close to zero that shows the existence of non-variability. very high (Montero, 2007).

Based on this quantitative finding, it can be pointed out that the hypothesis proposed in this study is contrasted:

H1: The level of academic education positively affects the happiness of entrepreneurs, understood as a multidimensional and dynamic construct that promotes the productive development of the territories.

Without further ado, we then go on to descriptively show the conclusions reached as well as their limitations and future lines of research.

CONCLUSION

Currently, the vast existing bibliographic production on the economy of happiness is basically characterized by analyzing how socio-demographic and psycho-organizational factors influence the happiness or subjective well-being of workers during the performance of their professional position. However, it is somewhat paradoxical that this same phenomenon is not robustly examined by the academic world in people who undertake a business in the digital society, bearing in mind that this group constitutes one of the main axial pieces that society has to stimulate its productive fabric in the midst of the health crisis (Crecente-Romero et al., 2019)

In this context, this article was born in order to empirically find out what the education-happiness link is like for Spanish entrepreneurs, being aware that the level of education and happiness vectors alone are not guarantors of business successes and achievements (Ravina-Ripoll et al., 2019). It follows, among other things that the top managers of public administrations must carry out strategic lines of political action aimed at cultivating the holistic happiness of entrepreneurs or the self-employed. As it is known, this requires a teaching system that promotes the entrepreneurial spirit of student's at all educational levels, especially at the university level (Ahmed et al., 2020; Ravina-Ripoll et al., 2019).

We cannot fail to note that Bjørnskov & Foss (2020) end their article by expressing the need for new academic work to emerge to quantitatively demonstrate the effect that well-being has on entrepreneurs or self-employed workers. In this sense, the results obtained in our work demonstrate that the happiness of Spanish entrepreneurs increases progressively as their academic training increases during the year 2019. This hypothesis gains statistical validity through the analysis of categorical data that has been carried out from a sample of entrepreneurs with different levels of studies.

The academic implications derived from this article are, first, that it fills an existing methodological gap in the literature on this particular topic, using the Balanced Worth Procedure (BWP) technique of categorical data analysis. From our point of view, the use of this new inferential tool generates added value to our study because it is specifically designed to compare distributions of categorical data, as it is the case of the analysis of the happiness of entrepreneurs under the focus of education, according to established groups and categories.

Secondly, that the significant linkage of the education-happiness construct in entrepreneurs is a novel finding, when the current scientific literature shows the opposite (Flèche et al., 2019; Ruiu & Ruiu, 2019). Perhaps, one way of interpreting this result is the need to focus on demonstrating that entrepreneurial happiness does not basically spring from the casual money effect; And yes, having a university degree that allows you to enjoy a high innovative capacity to

start an attractive business. Keeping in mind the famous phrase of Bill Gates: "*your most unhappy customers are your greatest source of learning.*"

Finally, this work, like any other, is not exempt from the corresponding limitations, as well as from the corresponding methodological improvements. Such fact can be derived fundamentally from two aspects. The first is that this study is cross-sectional and non-longitudinal in nature, hence the need for future research that is longer in time and can be extended to other countries. And the second is due to the choice of the size of our sample, which can be considered insufficient to affirm with great empirical robustness the existence of a strong happiness-education link in the group of Spanish entrepreneurs. This means that, today, this question remains an open question in the academic world, as well as knowing whether education has a moderating, reflective or causal effect on the subjective well-being or happiness of the labor force's active population in the Industry 4.0 era (Bradley & Green, 2020; Ravina-Ripoll et al., 2019; Michalos, 2017). Due to the above, it is convenient to keep going on with scientifically advanced in this particular topic in order to exhaustively validate or reject the hypothesis set forth in this article.

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