

# Factors Affecting Corporate Happiness within Technology-Based Firms in Andalucía

Eduardo Ahumada-Tello<sup>1</sup>, Rafael Ravina-Ripoll<sup>2</sup>, Araceli Galiano-Coronil<sup>2</sup> and Richard David Evans<sup>3</sup>

<sup>1</sup> Facultad de Contaduría y Administración, Universidad Autónoma de Baja California, Tijuana, Mexico

<sup>2</sup> Facultad de Ciencias Económicas y Empresariales, Universidad de Cádiz, Cádiz, Spain

<sup>3</sup> Business Information Management and Operations, University of Westminster, London, United Kingdom  
eahumada@uabc.edu.mx, rafael.ravina@uca.es, araceli.galiano@uca.es, R.Evans@westminster.ac.uk

**Abstract**—Studies on corporate happiness have emerged as a new approach to management and productivity. The theory around this leadership focus could change the way firms arrange their own business objectives and goals. In this paper, happiness, as a construct, is analyzed from an economical and entrepreneurial perspective. The goal is to determine if happiness influences productivity and work environments in technology-based firms (TBF) in Andalucía, Spain. A survey, completed by 41 employees, was elaborated on and applied to a group of employees in TBF, based in Sevilla. The results confirm that a happier environment is present in TBF than in non-technological firms. This is due to the strategies applied in TBF to improve happiness and wellness perception in their employees and the influence in productivity and, therefore, in organizational competitiveness.

**Keywords**—Happiness Economics, Technology-based firms, Wellness Theory.

## I. INTRODUCTION

Since the beginning of the 21<sup>st</sup> century, literature relating to happiness economics has grown in significance among Spanish scholars [1]. Cárdenas [2] acknowledges that one of the factors contributing to this trend has been the need for technology-based companies to implement a positive ambiance in their workplace i.e. one which is open to creativity and employee happiness. A clear example of this is at Google, an American multinational company that fosters a business culture of work satisfaction; this is achieved through the implementation of actions oriented to the nurturing of employee creativity and a work philosophy that is innovative and cooperative, where the organization fosters the creative ideas of its human capital [3].

This approach leads to the question: What factors contribute to the happiness of technology-based organizations? To answer this, Clemente [4] identified two relationships: (1) the positive link between collective creativity and innovation and (2) interpersonal relationships and the subjective wellness play an important role in the creation of innovative working groups, being either of internal or external nature. In line with this, other researchers have made reference to the theory of the ‘3Ts’ (Talent, Technology and Tolerance), proposed by Florida

[5, 6], with the purpose of showing that tolerance and creative ecosystems foster the creation of innovative spaces.

In 2016, a study conducted by The Economist Intelligence Unit (EIU) about mobility, performance and commitment, revealed that workforces that work in an ecosystem where mobile technology is used frequently, are not only more productive but also more creative and happy [7]. This finding should make us think that the creativity, technology and happiness trilogy is predominant in American firms. Among these, it is worth stressing organizations with a high entrepreneurial culture, such as that experienced in so-called start-up organizations. A lot of start-ups are known for implementing productive models aimed at improving the management quality of the company through the creation of proactive and stimulating links between their human capital and their technological intensity departments [8].

Recent research [9] has introduced the concept of “Tecnología Positiva” (Positive Technology). This new discipline, that overlaps the study of technology and positive psychology, was generated with the purpose of examining, in a qualitative and quantitative way, how technology advances influence the subjective wellness in the work force. From this perspective, there is no wonder why huge multinationals like Coca Cola and Microsoft have internal happiness departments that are oriented towards establishing collective wellness plans with the aim of pursuing the loyalty of their creative talents [10].

Kamel [11] demonstrated that the most entrepreneurial companies are those which cultivate their human capital work satisfaction in a holistic manner. This could be caused by the implementation of business management methodologies oriented towards creating a positive atmosphere within organizations. One of these is the so-called ‘lean startup’ which stimulates emerging models of a creative and innovative nature. As it is known in Happiness Economic theory, both intangible factors need high rates of corporate happiness [12]. This way, a positive work ambiance is generated within the company which facilitates not only the employees’ efficiency but also their commitment towards the organization. According to the authors of this paper, and many

other specialists in this discipline, happiness management culture should have, among its main rectors, nurturement of the entrepreneurial, culture oriented to the creation of societies that are more solidary, creative and innovative. Reaching this point of our work, it is convenient to analyze the question about why do lay people believe that satisfaction and performance are correlated? [13]. In this research, the authors point out that companies that own a management system that is committed to the integral pursuance of collective wellness of their human capital are usually more productive, as well as their employees being more communicative, empathetic and cooperative.

Following this research line, other documents are found [14], in which, it is pointed out that corporate happiness is not reached through monetary incentives but, through facilitating the reconciliation of family life, fellowship, varied abilities, management relationships and team work. Researchers [15] have also stated that happy employees are dynamic and efficient. Such circumstances have special relevance in technology-based companies [16]. The special interest on this article is that it shows the positive link between corporate wellness and the expected return within technology-based companies.

In parallel to the text mentioned above, American consultant, Towers Watson, published an investigation on the Global Workforce where it was noted that American productivity entities, with high levels of work satisfaction, triple, as a rule of thumb, the business volume in relation to entities from the same sector that have low rates of corporate happiness. This finding, along with the establishment of the first university Chair on happiness at Harvard University, USA, has stimulated literature relating to this topic [17]. Some concerns exist, however, relating to the scarcity of models related to human resources, based on the happiness management concept. The Kauffman foundation elaborates that the Index Start-up report, with the purpose of showing, among other things, that American start-ups are currently worried about the subjective wellness of their human capital [18]. This fact should not be surprising as, the World Happiness Report 2017, reveals that, in the time frame between 2008 and 2016, the happiness average among Americans reduces from 7.4 to 6.7 points [19]; This means a decline of 0.7 points, as shown in Figure 1.

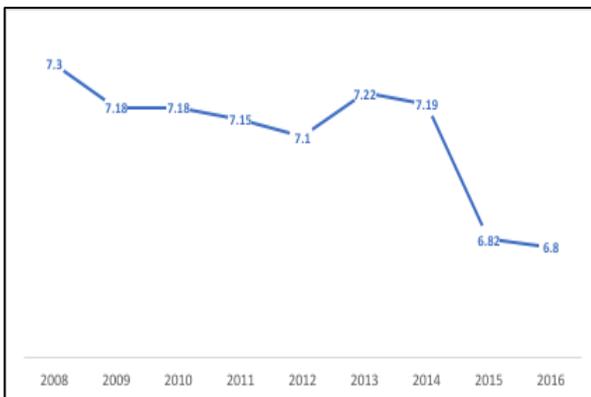


Fig. 1. Happiness Scores in the United States (2008-2016) [19]

The publication also shows that the decline in the average subjective wellness among American people is caused by the general decline of the PIB ratios per capita, life expectancy, social aid, liberty and corruption, perceived from the Government and organizations. In this way, it becomes interesting when reviewing the Kauffman Index Startup Activity National Trends [18]. This report reveals that between 2008 and 2016, the index of activity in the creation of start-ups has increased 0.1 points, reaching the maximum rate in 2009 with a record of 0.7 points, as shown in Figure 2.

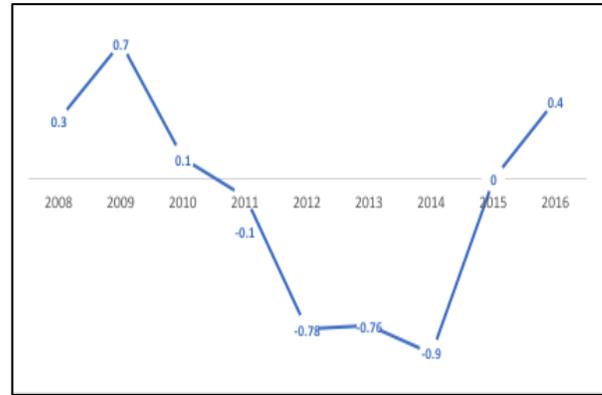


Fig. 2. Startup Index Evolution in the United States (2008-2016) [18]

From the point of view of happiness economics, the relevance of the American start-ups is consistent with the fostering of human resources, focused on the corporate wellness of employees [20]. On the basis of what was stated, we aim to reveal, in this research, that there is currently a lot of interest from the academic world on studying the construct of happiness-technology, since these factors contribute both in an isolated and joint form towards the improvement of corporate productivity [21]. In the first report, it is broadly indicated that the variable of ‘technology’ is associated with employee corporate wellness, especially by those employees who work in technology-based companies, which require a dynamic environment that fosters the destructive creativity, the cooperative learning and disruptive innovation [22].

## II. METHODOLOGY

To continue with the review of related works, analyzed in the previous section, this section is intended to explain the methodology used for examining the factors that influence the corporate happiness at work in technology-based companies. For this, a descriptive research of characters has been conducted and classified according to respondent gender. Based on this construct, the following objectives are defined: (1) To study corporate happiness within technology-based companies, (2) To examine the influence of work satisfaction on the creativity and innovation ability within organizations, (3) To analyze fellowship, as a multiplier of the collective wellness, and (4) To explore, from the perspective of ‘happiness economics’, if happiness at work contributes to generating a positive ambiance within technology-based

organizations. In order to develop this research, surveys were circulated to employees of different TICs. In total, 41 completed surveys were received.

### A. Data Analysis

This research is based on random simple sample surveys, where employees from different technology-based companies were chosen. With the data collected from the surveys, it is intended to measure work satisfaction within such companies with a time frame from June 1st 2016 to July 1st 2017.

In order to evaluate corporate happiness within these companies, the statistics computer program SPSS, was used as a data collector. To implement this application software, there was a questionnaire previously created to gather information related to our research. Such questionnaire is composed of exploratory questions targeted to office employees. The survey was taken between April and June 2017. In order to obtain broad information, we used open-ended questions and quantitative questioning using a Likert scale running from 0 to 10. Once the questionnaires were completed, data was presented descriptively to see the data clearly for its later analysis.

Regarding the items in the questionnaire, one of them referred to the level of collective wellness among employees in relation to the rest of the questions of a personal and subjective kind. Such questions state that their end goal is to put on the scientific agenda whether work satisfaction is significantly influenced by the following variables: salary, work schedule, fellowship, working in a quiet and creative ambiance, relationship with immediate boss and board, talent and technology. In the next section, a descriptive interpretation of the data is completed.

## III. RESULTS

The main objective of this research is to explore the subjective wellness of employees who are subject of our research: The TICs companies' workforce. According to the Happiness Economics discipline, there is a positive relationship between happiness and productivity, especially in those organizations where a positive ambiance is fostered [23].

Before continuing with the development of this section, we took note of some data regarding the geographical distribution of the sample. It can be noted that 73.2% of the human capital are male and that the average age among their workforces is twenty-six years old. It is important as well to note that the highest value, regarding the level of education among the respondents is postgraduate education, representing 58.5%. As an interesting fact, 2.4% of the sample are holders of PhDs.

Exploratory questions using a Likert like scale running from 0 to 10 were used to obtain a rich amount of information. The first question that was put to the surveyed people was that: were they, in general terms, happy in their work environment? For this, an average rate of happiness of 9.02 points was identified. This can be due to multiple factors, among which might figure an organizational culture oriented to stimulating the collective wellness. With the objective of being able to

verify this hypothesis, it is convenient to examine quantitatively how corporate happiness is affected by the following parameters: salary, schedule, fellowship, a quiet and creative work ambiance, the relationship with the immediate boss and board and the freedom to choose their own work methodology. In order to do this, we turned the data obtained in the questionnaires into the computer program SPSS. This allowed us to discover that happy employees from the companies show higher records of corporate wellness, in relation to their unhappy co-workers.

So that the information obtained from our study has a strong statistical solidity with over 41 samples, we used the chart method ANOVAS, which allowed for the measurement of the levels of significance of the results obtained. In the case of this study, it can be observed that there is a difference, non-random, in both of the hypothesis that were posed in this academic text, which are whether the employees from the technology-based companies are happy; this is based on the analysis of variables, including: salary, work schedule, fellowship, a creative work environment, interpersonal relationships, liberty and autonomy at work; and, if there is a difference in relation to the variables between the human capital and that shows high levels of corporate wellness in comparison to the ones that show low levels. In terms of the first hypothesis, it should be mentioned that ANOVA technique shows that the analyzed parameters make an important influence on corporate wellness of the happy human capital from the technology-based firms, since all exceed the rating of 7 points, except for the salary variable which had a rating of 6.35 points.

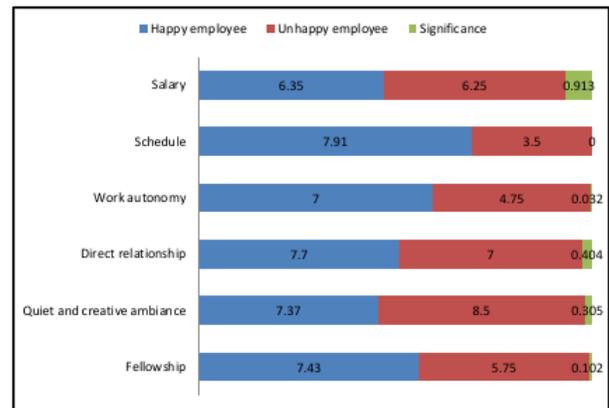


Fig. 3. Factor influence in employees happiness. Source: Own survey

In Figure 3, it can be observed that the respondents who declared themselves as unhappy with their job position show, in the analyzed parameters, a lower log compared to the co-workers who declared themselves as happy, except for the creative ambiance ratio. Such result is not consistent with the text 'Happiness Economics', since there is a standard deviation of 1.9 points and a coefficient of platykurtic kurtosis. Both records are caused, on the one hand, by the fact that there is a low concentration between the values and, on the other hand, the fact that such values have a level of statistical significance of 0.690 points. This entails an eta

squared value of 0.027 points, which translates from a static perspective in which there is a small/moderate effect value over the rest of the analyzed variables. It is worth noting that the item, which makes reference to working in a quiet and creative ambiance, shows a higher value in those persons who are not happy (8.5 points). There is also an important difference in schedule satisfaction between happy and unhappy employees, since the significance level is 0.

In alignment with the previous comments, it is important to note that the significance shows a difference of 0.032 points between happy and unhappy employees in relation to the “work autonomy” variable. This highlights that this item has an inverse relation with the employees’ wellness, since it shows a Pearson coefficient different from 0, specifically -0.335 points. This means that an increase in the collective wellness within this human capital does not necessarily increase their work satisfaction from a job position autonomy point of view. With regard to the rest of the variables, it can be highlighted that they do not represent a relevant difference between happy and unhappy employees, since their levels of significance are lower than 0.05 point. This information shows that the parameters that were analyzed throughout the investigation do not directly affect the corporate happiness of the analyzed enterprises, since there are strong positive correlations.

It is acknowledged that it is worth examining the talent binomial and the use of new technologies as influential elements on the collective wellness within organizations; for this, we will study, in future such relations by analyzing work satisfaction among the employees that are subject of our investigation. By conducting regression tests, we have been able to prove that, within linear and quadratic equations, there is a small/moderate ratio relation between the employee’s work satisfaction variable and the talent variable, since an R-squared value of 0.325 points and another one of 0.325 points have been obtained respectively. If we do the same for ‘work satisfaction’ and the ‘use of technology’ parameters, we can observe that the R-squared from the quadratic equation is 0.735 points.

The results obtained from this investigation have an important relation with data provided by the report made by Adecco in 2015 which concluded that factors such as: salary, schedule, fellowship, a quiet and creative work ambiance, the relationship with the immediate boss and board and the freedom to choose their own work methodology, stimulated a positive ambiance of collective wellness within companies [25].

#### IV. CONCLUSIONS

A descriptive analysis relating to happiness in the workplace has been developed within the context of technology-based companies located in Sevilla, a city from the Andalucía region of Spain. The results obtained show that the average rate of collective wellness within the companies that were surveyed is high, in comparison to existing companies with low technology adoption. This high record can be caused by the fact that a positive, happy and creative ambiance is promoted within the technology-based companies, by carrying

out practices and adopting methods that stimulate proactively the wellness of employees. All actions, as stated by happiness economics, are known to influence significantly the work performance of human capital and, therefore, the productivity and economic profitability of the organization.

In order to conduct this research, we used an exploratory approach through questionnaires and, based on the collected data and the state of wellness in the companies observed, we concluded that carrying out practices that promote happy among people fosters higher levels of dynamism and creativity in the performance of the employees’ duties in the workplace. From this perspective, activities can be oriented in an optimum way, towards the improvement of performance in the organizational achievement of the technology-based companies. It is worth mentioning that this academic work has some scientific limitations. Among them, we can highlight the small sample of our study, in comparison to the total number of employees that work in this type of company. Nonetheless, this did not hinder the general and descriptive way of exploration of each one of the factors that were examined. Before concluding this chapter, we would like to indicate that, in our view, it would be interesting that future research is conducted towards the scientific studying of corporate happiness within technology-based companies, with the objective of exploring the importance of this intangible resource in the sustainability of companies.

#### REFERENCES

- [1] Rojas, M., “Economía de la felicidad. Hallazgos relevantes respecto al ingreso y bienestar”, *El trimestre económico*, vol. 303, no. 3, pp. 537-576, 2009.
- [2] Cárdenas, J., “¿Qué se crea al fomentar el emprendimiento? Los principales impactos de la formación en este campo”, *Revista Universidad & Empresa*, vol. 17, no. 28, pp. 173-190, 2014.
- [3] Mendoza, D., “Clima organizacional y productividad en las empresas u organizaciones” *Universidad militar Nueva Granada*, Bogotá, Colombia, 2015.
- [4] Clemente, V., “Engranando la felicidad. Políticas de la Economía creativa en España”, *Economía Creativa*, México, no. 4, pp. 31-61, 2015.
- [5] Báez, M., “La teoría de las clases creativas. Una aproximación a la realidad española” *Universidad de Zaragoza y Buenos Aires*, Argentina, 2016.
- [6] Florida, R., “La clase creativa. La transformación de la cultura del trabajo y el ocio en el siglo XXI. En R. Florida, la clase creativa”, *La transformación de la cultura del trabajo y el ocio en el siglo XXI*. Paidós, Barcelona, España, 2010.
- [7] Pritchard, S., “Informe de movilidad, rendimiento y compromiso. The Economist Intelligence Unit (EIU)”, Londres, Reino Unido, 2016.
- [8] Fino, D., “Innovación en modelos de negocio: Metodología Lean Canvas en una Startup de base tecnológica. Tesis doctoral inédita”, *Universidad militar Nueva Granada*, Bogotá, Colombia, 2013.
- [9] Distéfano, M., “Tecnología positiva. El uso de la tecnología para mejorar el bienestar personal y las interacciones sociales”, *Psicodebate*, vol. 15, no. 1, pp. 93-112, 2015.
- [10] Castaño, J., “Medición del clima organizacional en la Alcaldía de Palestina. Tesis doctoral inédita”, *Universidad tecnológica de Pereira*, Pereira, Colombia, 2016.
- [11] Kamel, J., “Creativity and innovation for corporate happiness management”, *Brazilian Journal of Science and Technology*, vol. 4, no. 1, pp. 2-16, 2017.

- [12] Blank, S., "Why the Lean Start-Up Changes Everything", *Harvard Business Review*, vol. 3, pp. 3-9, 2013.
- [13] Fisher, C.D., "Why do lay people believe that satisfaction and performance are correlated? Possible sources of a commonsense theory", *Journal of Organizational Behavior*, vol. 24, no. 6, pp. 753-777, 2003.
- [14] Hosie, P. and P. Sevastos, "Does the "happy-productive worker" thesis apply to managers?", *International Journal of Workplace Health Management*, vol. 2, no. 2, pp. 131-160, 2009.
- [15] Díaz, G., M. Peña and I. Samaniego, "Clima organizacional: Factores de satisfacción laboral en una empresa de la industria metal-mecánica", *Global Conference on Business and Finance Proceedings*, vol. 8, no. 2, pp. 843-847, 2013.
- [16] Cevallos, D., "La felicidad laboral como estrategia de desarrollo empresarial", *Revista ECA Sinergia*, vol. 5, pp. 70-81, 2014.
- [17] Ott, J.C. "Perceptions of the Nature of Happiness: Cultural, but Related to the Dynamics of the Human Mind and the Gratification of General Needs", *Journal of Happiness Studies*, vol. 17, pp. 1-7, 2016.
- [18] Fairlie, R.W. "Startup activity: Kauffman Index", *Kauffman Foundation*, Missouri, Estados Unidos, 2016.
- [19] Helliwell, J., R. Layard and J. Sachs, "World Happiness Report 2017", *Sustainable Development Solutions Network*, Nueva York, Estados Unidos, 2017.
- [20] Grupo Banco Mundial (BBVA), "Reinventar la empresa en la era digital" BBVA. OpenMind. Turner, Madrid, España, 2014.
- [21] Deloitte, "Tendencias globales en capital humano 2016" La nueva organización: un diseño diferente. *Deloitte University Press*, Nueva York, Estados Unidos, 2016.
- [22] Amabile, T.M. and M.G. Pratt, "The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning", *Research in Organizational Behavior*, vol. 36, pp. 157-183, 2016.
- [23] González, P. "Relación del Clima Organizacional en el Bienestar Laboral en una Corporación de Telecomunicaciones en el Ecuador", *Universidad tecnológica empresarial de Guayaquil (UTEG)*, *Revista Ciencia y Tecnología*, vol. 8, pp. 41 - 53, 2015.
- [24] Cardona, I. "La felicidad en el trabajo, como una estrategia organizacional en las empresas privadas", *Universidad Militar Nueva Granada*, Bogotá, Colombia, 2016.
- [25] Blanco, C. "Tecnología y felicidad". *Revista de la facultad de educación de Albacete*, no. 11, pp. 25-40, 1996.