

Document downloaded from:

<http://hdl.handle.net/10251/202172>

This paper must be cited as:

Expósito-Langa, M.; Estelles-Miguel, S.; Ribes-Giner, G.; Rueda Armengot, C. (2023). Spanish CEOs' perceptions in complex situations: an analysis from a gender perspective. *Journal of Organizational Change Management*. 36(1):106-118.  
<https://doi.org/10.1108/JOCM-05-2022-0157>



The final publication is available at

<https://doi.org/10.1108/JOCM-05-2022-0157>

Copyright Emerald

Additional Information

# **Spanish CEOs' perceptions in complex situations. An analysis from a gender perspective**

## **Abstract**

**Purpose:** The aim of this paper is to provide empirical evidence of discrepancies in certain management-related business factors in complex situations from a gender perspective.

**Design/Methodology/Approach:** The study examined whether there are any differences in the characteristics of Spanish companies run by men and women, and how male and female CEOs perceive critical situations such as the COVID-19 pandemic. To answer the research questions, the survey carried out by the Ibero-American Observatory of Small and Medium-Sized Enterprises (FAEDPYME) in 2021 was used. The final sample consisted of a total of 1,532 small and medium-sized enterprises.

**Findings:** The main results show that female CEOs are more likely to have a university education than male CEOs, but they run smaller companies in Spain. On the other hand, they are more risk averse and evaluate the impact of complex and risky situations more negatively.

**Research limitations:** The findings open up new research questions. This is a cross-sector study, but are there differences in behaviour between sectors? The view of the crisis is negative, but which types of companies have been strengthened?, finally, do other countries have similar results?

**Originality/value:** The originality and value of this document lies in the fact that it makes an interesting contribution to the open debate on the management of complex situations from a gender perspective.

**Keywords:** Gender; Complexity; SMEs; FAEDPYME

## **Introduction**

Over the years, we have found many studies in the literature that deal with the concepts of entrepreneurship and the management of complex situations, which have aroused great interest in the scientific community. More recently, these concepts are directly related to decision making in contexts of high uncertainty, as well as to the business results obtained after entrepreneurial actions. In this way, numerous studies on entrepreneurship have appeared in recent years, many of them related to the importance of organisational competitive factors, be

they structural, behavioural or managerial (Al-Dhaafri & Alosani, 2020; Hwang, et al., 2020; Khan, et al., 2020; Wijaya & Suasih, 2020; Shahriari & Mahmoudi-Mesineh, 2021; Shela, et al., 2021; Ravina-Ripoll & Falvan-Vela, 2022 and Tallia & Hafeez, 2022), as well as those related to sustainable finance Ribes-Giner, et al., 2018; Raimi, et al., 2021; Al-Qudah, et al., 2022 and Luo, et al., 2022) and the sources of funding used to address new innovative projects that determine the impact on entrepreneurial success (Cumming, et al., 2019; Stevenson, et al., 2019; Brown, et al., 2020; Shaikh, et al., 2021; Blaseg, et al., 2021 and Audretsch & Belitski, 2022).

However, despite the various studies that have been carried out, there is still a great deal of interest in the literature in how the above factors are managed by male and female CEOs. Given these premises, it is therefore of interest to explore these lines of research from a gender perspective. Hence, the aim of this paper is to provide empirical evidence on which competitive factors influence corporate governance and how firms deal with a complex situation from a gender perspective.

To address these research questions, and based on the survey carried out in 2021 by FAEDPYME (Foundation for the strategic analysis and development of Small and Medium-Sized Enterprises), a sample of 1,532 Spanish companies was analysed. The data sample is based on a collaboration between FAEDPYME and the Department of Business Organisation at the Universitat Politècnica de València. Although the survey is very broad and covers many aspects of the companies surveyed, this study has focused on aspects related to CEO and company traits, as well as company management in critical circumstances, providing a gender focus. Finally, by means of multivariate analysis and the application of non-parametric tests, the hypothesis of gender independence with regard to the behaviour of company managers has been deepened, identifying whether there are significant differences in the variables proposed in the research.

The main results obtained show that female CEOs are slightly younger than male CEOs and have a higher university education. On the other hand, they manage companies that are somewhat smaller in size and have less access to international markets. With regard to the management of the company in complex situations, it is observed that there are no gender differences when applying for financing, however, there are nuances, such as the reasons for requesting such financing. This would be related to the fact that women feel more secure when they provide all the capital themselves, maintaining greater autonomy in the management of their business, instead of turning to other external sources of financing that could put the future

of the company at risk. It would also be related to the restrictions that women face in accessing financial resources, especially in times of crisis, where financial exclusion is more pronounced in female entrepreneurship (Cervelló-Royo, et al., 2021). Finally, female CEOs perceive that crisis or complex situations have a greater impact on their results (turnover, profits, productivity, liquidity, etc.).

Next, the theoretical background and research questions are developed. The working context and empirical findings are then described. Finally, the discussion and conclusions are presented, together with the identified limitations and future lines of work.

## **Literature Review and Research Questions**

Entrepreneurship is studied from different perspectives such as economic, psychological and institutional (Álvarez & Urbano, 2013; Herrera & Gutiérrez, 2014; Alean, et al., 2017 and Zambrano-Vargas & Vázquez-García, 2019), among others, emphasising the different factors that make a person undertake, as well as the motivations that allow them to do so and the barriers that prevent them from staying (Estrada, 2008). There is no doubt that success depends on different factors, although the study of gender as a cross-cutting research category has recently increased in studies within the social sciences. Thus, the GEM (Global Entrepreneurship Monitor) carries out an analysis of entrepreneurship in different countries and analyses the following variables: age, academic training and gender, which in turn are related to other variables, related to the social, cultural, political and economic context, such as social and cultural norms, entrepreneurship education, government policies, availability of financing programmes, legal and commercial infrastructure, market openness, type of activity or sector, among the most representative ones (Zambrano-Vargas & Vázquez-García, 2019).

In recent decades, female entrepreneurship has grown significantly worldwide (Runyan, et al., 2006, Simmons, et al., 2019 and Criado-Gomis, et al., 2020) in qualitative and quantitative terms (Minniti, 2009 and Rivera, et al., 2021). Hence, we find abundant literature on female entrepreneurship, employment and self-employment (Ligthelm, 2005; Seelos & Mair, 2005; Peredo & McLean, 2006; Neck, et al., 2009; Berner, et al., 2012; Pathak & Gyawali, 2012; Corrêa, et al., 2021 and Ojong, et al., 2021), together with the financing of women entrepreneurs (Hosseini, et al., 2012; Than, 2014 and Purohit & Kumar, 2020), and sustainable finance (Goetz & Gupta, 1996; Hashemi, 1996; Kabeer, 2001; Garikipati, 2008; Ngo & Wahhaj, 2012; Ribes-Giner, et al., 2018; Dal Mas & Paoloni, 2019 and Poulaki, et al., 2021).

Thus, there are studies that relate training to entrepreneurship, including one that indicates that university women who are not afraid of failure are more likely to be entrepreneurs (Cotin, et al., 2005). On the other hand, when carrying out the bibliographic search for this study, we have found some gaps that we consider significant and interesting when focusing our study and which have not been found such as the age of the company, i.e. the number of years it has been in operation since its incorporation, the size of the company, i.e. how many employees the company has. Another interesting piece of information is whether the company exports or not this could also be related to the companies known as “Born Globals” and finally whether the company is a family business or not and all of this related to the gender perspective and this is the starting point of our second research question. Based on these arguments, our first research question, as a basis for the study, is as follows:

**Research question 1.** What are the differences in the characteristics of CEOs and in the structural characteristics of companies managed from a gender perspective?

Risk appetite is a personality trait that determines an individual's tendency and willingness to take risks (Das & Teng, 1997). This trait together with proactivity and innovativeness are the three dimensions of the so-called entrepreneurial orientation (Covin & Slevin, 1989). Those who are more risk tolerant are more likely to be entrepreneurial, but those entrepreneurs with a medium level of risk aversion are more likely to remain entrepreneurs (Niess & Biemann, 2014). Zeffane (2015) indicates that gender-related risk aversion explains significant differences in female entrepreneurship.

The pandemic due to the coronavirus disease 2019 (COVID-19) global crisis that occurred in late 2019 has generated changes in businesses to adapt to this new situation, Previous research analysis of impacts of the pandemic on the number of active small businesses (Fairlie, 2020); other studies identify psychological factors associated with a lower level of Covid-19 impact and that can be used for psychological interventions that result in an improvement in the mental health of these vulnerable groups during and after the Covid-19 pandemic (Hernandez-Sanchez, et al., 2020). In relation to entrepreneurship studies from a gender perspective during the COVID-19 pandemic, studies emphasized the main focus of identifying the critical components of the financial contribution of female entrepreneurship toward the household (Ge, et al., 2022).

Thus, the second research question we investigate is:

**Research question 2.** Do men and women leaders perceive a complex situation such as the COVID-19 crisis in the same way?

## **Metodology and Empirical Study**

### *Sample Desing and Variables*

FAEDPYME is a permanent research centre that contributes to the process of centralising, producing and analysing information on the historical evolution, current situation and future prospects of the regional productive sector, with an emphasis on SMEs. The Observatory was created with the idea of providing information on the productive structure of Ibero-America and aims to be of use to companies and the various economic and social actors. Its main objective is to provide continuous information on the strategies and expectations of Ibero-American SMEs, in order to facilitate and support decision-making from a scientific point of view. It also aims to contribute to the proposal of useful solutions for the different sectors of economic activity. Another of its objectives is to understand the problems faced by companies in their various aspects, in order to facilitate their competitiveness.

In order to provide empirical evidence to answer the research questions, the sample of Spanish companies from the survey carried out by FAEDPYME between February and April 2021 was used. The final sample consisted of a total of 1,532 multisectoral companies distributed throughout the country.

To validate the sample, the data of the Ministry of Industry, Trade and Tourism (Ministerio de Industria, Comercio y Turismo, 2021) of February 2021 were used as a reference. The total population of companies in Spain was 2,877,859 companies, of which 55.66% were SMEs with no employees, 38.28% were micro companies with 1 to 9 employees, 5.06% were small companies with 10 to 49 employees, 0.83% were medium-sized companies with 50 to 249 employees and only 0.17% were large companies with more than 250 employees. This population data gives a sampling error of 2.5% of the sample obtained in the survey.

Finally, an overview of the variables analysed for each research question can be found in Table 1.

### **### TABLE 1**

#### *Analysis Techniques*

In order to assess whether the gender perspective could influence the different variables considered in the study, a contingency table analysis was carried out, which allows us to observe the association with categorical variables (Everitt, 1977 and Reynolds, 1984). This type of analysis allows us to observe the association between the categories represented in rows and columns, by comparing their proportions. The Pearson's chi-square statistic is used to test the hypothesis of independence: if the p-value is less than 0.05 and the confidence level is 95%, it is assumed that there is an association between the variables. Otherwise, it is assumed that the difference between the observed values could be due to chance.

On the other hand, in order to observe the association between the gender perspective and the numerical variables an independent samples T-test was carried out (Newbold, et al., 2002). This test allows us to test the hypothesis of difference of means for independent samples. First, the homogeneity of variances is tested using the F statistic and then the t-statistic is estimated, assuming that if the critical level, or p-value, is less than 0.05, the data from both samples reject the null hypothesis of equality of means, so they can be considered as different.

## **Results**

### *Results for Research Question 1*

This research question aims to explore some of the differences between female and male CEOs. The variables considered are age and education of the CEOs. With regard to age, the statistical T-test shows that the average age of the female CEO group is lower than that of the male CEO group (Table 2). In addition, the results obtained show that the differences in the CEO age variable are significant, with women being slightly younger, 50.41 years, than men, 51.92 years.

#### **### TABLE 2**

Given the categorical nature of the variable, and taking into account the differences in university education, a Chi-square test was carried out. Table 3 shows the differences in terms of the university education of the managers of the sample companies. The sample of female CEOs with university education has a value of 63.07%, while the sample of male CEOs has a value of 49.29%. As a result of the Chi-square test, we can observe that, in general, women who reach managerial positions in companies have a higher level of education than men.

#### **### TABLE 3**

We then test for differences in some structural characteristics of the firms managed by the two groups, such as the age of the firm, the number of employees, the export weight and whether

the firm is a family firm. Given the quantitative nature of the first three variables, a t-test of means is used, while a chi-square test is used for the fourth variable.

#### ### TABLE 4

Table 4 shows the test results of the T-test. As can be seen, the age of the company does not show significant differences between the two groups. On the other hand, the test indicates that the difference in number of employees and export weight between the two groups are significant, being lower in the case of companies run by women than in the case of men.

Finally, as can be seen in Table 5, the Chi-square test is not significant for the family business variable, suggesting that there is no difference between women's and men's leadership in managing traditional family businesses.

#### ### TABLE 5

##### *Results for Research Question 2*

The second research question focuses on the management of complex situations. Firstly, Table 6 shows the number of companies that underwent an RTER during the COVID crisis. Although the percentage of companies led by women that have undertaken an RTER is higher than those led by men, the results of the Chi-square test do not show significant differences depending on the gender of the CEO.

#### ### TABLE 6

Next, we looked at how CEOs respond to risk aversion (Table 7). In the first step, the question is asked whether they have tried to access financing from credit institutions in 2020. The results show that the percentage of female and male CEOs who have tried to access external financing is very similar, 53.08% and 54% respectively. However, the most interesting result is found in the group of CEOs who have not tried to access these credit lines, and more specifically in the motivation that led them to take this decision. The main differences are that the sample of female CEOs considers that they have not applied for aid because they do not make investments, 12.31%, or because they think they would not get it, 5.38%. On the other hand, the sample of male CEOs is more likely to consider that they do not need it because they are self-financing, 35.77%. Since the chi-square test is significant, it can be confirmed that there are gender differences, mainly in the refusal or aversion to the risk of taking on new investments.

#### ### TABLE 7



Finally, the impact of COVID has had on variables related to organisational performance in companies led by female and male CEOs was assessed. Table 8 shows the results obtained using a T-test.

### ### TABLE 8

As can be seen in Table 8, all the variables have mean values above the mean of the Likert interval 1 to 5, which indicates that the impact of the COVID crisis has affected the companies without exception. It can also be seen that the mean is always higher in the group of female CEOs than in the group of male CEOs, with the variables: turnover, profitability, productivity, investments and liquidity being significant, while international turnover was affected equally in both groups. It is also worth noting what happens to the variable Investments, which is the one most affected by the crisis for the group of female CEOs (3.63), an aspect which, together with the results in Table 7 above, points to the greater risk aversion of female CEOs.

## Conclusions

This paper has tried to answer several questions related to the characteristics of companies and how CEOs deal with complex situations from a gender perspective. Approaching research from this perspective is relevant because in a world that is moving towards full equality between men and women, we still have some way to go. What is certain is that more and more women are becoming board members and running their own companies.

Traditional research has looked at the entrepreneur in a generic way without delving into gender (de Bruin, et al., 2006), it was later studies that began to look at gender as a variable (Carter, et al., 2012). However, although these studies have made progress on women's contribution to entrepreneurship (Henry, et al., 2015), there is still a gender bias and a dominant male model in entrepreneurial discourse. In order to make progress in this area, it is important to identify which factors are considered most valuable for entrepreneurs to overcome the challenges of running an organisation.

Given this contextualisation, we have focused on two research questions in this study. On the one hand, to describe whether there are differences in some characteristics of CEOs as well as in the typology of companies. On the other hand, how female versus male CEOs deal with complex situations.

Looking at the results globally, there are significant differences in the profile of business owners in terms of characteristics such as age, education and risk aversion. Female managers not only

run smaller enterprises, but also invest less and, above all, do not expect to receive any aid, in contrast to male managers who do not expect to receive any external funding, as their enterprises are more self-funded. It should also be noted that women in most cases have a higher level of education, a qualified entrepreneur has more chances of success, although some of these skills and knowledge are acquired through business experience, which would be in line with what has been published by other authors (Schefczyk, 2001; Minniti & Bygrave, 2001; Fernald, et al., 2005; Aubert, et al., 2006 and Harrison & Burnard, 2016). On the other hand, differences are observed in the level of exports of firms according to the management profile, this result is in line with other research (Lu & Beamish, 2001; Hessels, 2008; Minniti, 2009 and Zambrano-Vargas & Vázquez-García, 2019); which already indicate that male CEOs have a greater predisposition towards international entrepreneurship. Finally, regarding the impact of a crisis such as COVID-19, although it has a negative impact on all firms regardless of the gender of the CEO, the perception of this impact is more negative for female CEOs than for male CEOs.

In summary, the results show that there are indeed still significant differences in entrepreneurship from a gender perspective. Women have a more cautious profile towards entrepreneurship, for example towards international markets. At the same time, although they have a higher level of higher education, they run smaller companies and are more averse to business risk. This means that in complex situations their profile is more conservative when it comes to taking entrepreneurial initiatives.

This study has interesting implications not only for the business world, but also for policy makers and the educational context. For example, companies should pay more attention to balance in their organisational structure and strive for parity in their governance. This would bring them closer to meeting ESG (Environmental, Social and Governance) objectives, which are becoming increasingly relevant in the valuation of companies. In the institutional sphere, the territorial authorities responsible for promoting entrepreneurship should offer specific programmes to encourage female entrepreneurship, with incentives to set up businesses. Finally, the educational sphere is an ideal context for promoting gender equality from childhood to university level. Promoting decision-making skills, risk assessment and entrepreneurship will be fundamental to progress towards a more integrated society.

To conclude, we consider that the paper offers insights of interest to the open debate in the literature on leadership, firm competitiveness and CEO gender. At the same time, it has some limitations that open up the possibility to future research of interest to the literature. On the one hand, it would be interesting to deepen the analysis according to the activity or sector of the

company, and to compare the results obtained. By working with a multi-sector sample, it is possible that some specific results may have been distorted by the tendency of the group of companies. In turn, this would make it possible to find out whether firms in the main productive sectors perform differently in adverse situations. On the other hand, although the COVID-19 crisis has generally affected companies negatively, a small percentage of them have seen opportunities for the development of new products, taking advantage of their know-how, for example, to manufacture facial masks. Deepening the profile of these companies and their CEO is certainly an interesting line of work to develop. Finally, this study could be extended and carried out with survey data from more countries to check whether or not the results obtained in this study are similar.

In short, this is a first study that covers the initial objectives, but is open to further improvements in the future.

## References

- Álvarez, C., & Urbano, D. (2013). Diversidad cultural y emprendimiento. *Revista de Ciencias Sociales*, 19(1), 154-169.
- Al-Dhaafri, H., & Alosani, M. (2020). Impact of total quality management, organisational excellence and entrepreneurial orientation on organisational performance: empirical evidence from the public sector in UAE. *Benchmarking: An International Journal*, 27(9), 2497-2519. doi:10.1108/BIJ-02-2020-0082
- Alean, A., Del Río, J., Simancas, R., & C., R. (2017). ¿El emprendimiento como estrategia para el Desarrollo humano y social? . *Saber, ciencia y libertad*, 12(1), 107-123.
- Al-Qudah, A., Al-Okaily, M., & Alqudah, H. (2022). The relationship between social entrepreneurship and sustainable development from economic growth perspective: 15 RCEP countries. *Journal of Sustainable Finance & Investment*, 12(1), 44-61.
- Aubert, P., Caroli, E., & Roger, M. (2006). New technologies, organisation and age: firm-level evidence. *The Economic Journal*, 116(509), 73-93.
- Audretsch, D., & Belitski, M. (2022). The role of public finance in knowledge transfer and innovation. En *Handbook of Technology Transfer* (págs. 39-53). Edward Elgar Publishing.

- Berner, E., Gomez, G., & Knorrinda, P. (2012). Helping a Large Number of People Become a Little Less Poor: The Logic of Survival Entrepreneurs. . *The European Journal of Development Research.*, 24, 382-396. Obtenido de <https://doi.org/10.1057/ejdr.2011.61>
- Blaseg, D., Cumming, D., & Koetter, M. (2021). Equity crowdfunding: High-quality or low-quality entrepreneurs? . *Entrepreneurship theory and practica*, 45(3), 505-530.
- Brown, R., Rocha, A., & Cowling, M. (2020). Financing entrepreneurship in times of crisis: exploring the impact of COVID-19 on the market for entrepreneurial finance in the United Kingdom. *International Small Business Journal*, 38(5), 380-390.
- Carter, S., Marlow, S., & Bennett, D. (2012). Gender and entrepreneurship. *Enterprise and Small Business: Principles Practice and Police*, 218-231.
- Cervelló-Royo, R., Moya-Clemente, I., Perelló-Marín, R., & Ribes-Giner, G. (2021). Differences in the financial approach to entrepreneurship from a gender perspective. *International Journal of Globalisation and Small Business*, 12(1), 46-58.
- Corrêa, V. S., da Silva Brito, F. R., de Lima, R. M., & Queiroz, M. M. (2021). Female entrepreneurship in emerging and developing countries: a systematic literature review. *International Journal of Gender and Entrepreneurship*.
- Cotin, I., Larraza, M., & Mas, I. (2005). Características distintivas de los emprendedores y los empresarios establecidos: evidencia a partir de los datos REM de Navarra. . *Revista de Empresa*, 20, 10-19.
- Covin, J., & Slevin, D. (1989). Strategic management of small firms in hostile and benign environments. . *Strategic Management Journal*, 10(1), 75-87.
- Criado-Gomis, A., I.-B. M., Cervera-Taulet, A., & Ribeiro-Soriano, D. (2020). Women as key agents in sustainable entrepreneurship: A gender multigroup analysis of the SEO-performance relationship. *Sustainability*, 12(3), 1244.
- Cumming, D., Deloof, M., Manigart, S., & Wright, M. (2019). New directions in entrepreneurial finance. *Journal of Banking & Finance*, 100, 252-260.
- Dal Mas, F., & Paoloni, P. (2019). A relational capital perspective on social sustainability; the case of female entrepreneurship in Italy. *Measuring Business Excellence*.
- Das, T., & Teng, B. (1997). Sustaining Strategic Alliances: Options and guidelines,. *Journal of General Management*, 22(4), 49-64.

- de Bruin, A., Brush, C., & Welter, F. (2006). Towards Building Cumulative Knowledge on Women's Entrepreneurship. *Entrepreneurship Theory and Practice*, 30(5), 585-593. doi:https://doi.org/10.1111/j.1540-6520.2006.00137.x
- Estrada, F. (2008). Economía y racionalidad en las organizaciones. Los aportes de Herbert A. Simon. . *Revista de Estudios Sociales*, 31, 84-103.
- Everitt, B. S. (1977). *The Analysis of Contingency Tables*. London: Chapman & Hall.
- Fairlie, R. (2020). The impact of COVID-19 on small business owners: Evidence from the first 3 months after widespread social-distancing restrictions. *JOURNAL OF ECONOMICS & MANAGEMENT STRATEGY*, 29, 727-740.
- Fernald, L., Solomon, G., & Tarabishy, A. (2005). A new paradigm: Entrepreneurial Leadership. *International Research Journal*, 2(257-276), 30.
- Garikipati, S. (2008). The Impact of Lending to Women on Household Vulnerability and Women's Empowerment: Evidence from India. . *World Development*, 36(12), 2620-2642.
- Ge, T., Abbas, J., Ullah, R., Abbas, A., Sadiq, I., & Zhang, R. (2022). Women's Entrepreneurial Contribution to Family Income: Innovative Technologies Promote Females' Entrepreneurship Amid COVID-19 Crisis. *FRONTIERS IN PSYCHOLOGY*, 13.
- GEM. (2020). *Informe Global Entrepreneurship Monitor España*. Empresas Nuevas.
- Goetz, A., & Gupta, R. (1996). Who takes the credit? Gender, power, and control over loan use in rural credit programs in Bangladesh. . *World Development*, 24(1), 45-63.
- Harrison, C., & Burnard, K. (2016). Entrepreneurial leadership: A Systematic Literature Review. *International Review of Entrepreneurship.*, 14(2), 235-264.
- Hashemi, S. S. (1996). Rural credit programs and women's empowerment in Bangladesh. . *World Development*, 24(4), 635-656.
- Henry, C., Foss, L., & Ahl, H. (2015). Gender and entrepreneurship research: A review of methodological approaches. *International Small Business Journal: Researching Entrepreneurship*, 34(3), 217-241.
- Hernandez-Sanchez, B., Cardella, G., & Sanchez-Garcia, J. (2020). Psychological Factors that Lessen the Impact of COVID-19 on the Self-Employment Intention of Business

Administration and Economics' Students from Latin America. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH*, 17(15).

Herrera, K., & Gutiérrez, J. (2014). El emprendimiento como iniciativa para la creación de empresas: Análisis de la perspectiva psicológica y contextual. . *Revista de Ciencias Sociales*, 20(2), 288-302.

Hessels, J. (2008). *International entrepreneurship: Value creation across national borders*. No. EPS-2008-144-ORG.

Hosseini, J., Bakhtiari, M., & Lashgarara, F. (2012). The Role of Micro Credit Funds in Developing Entrepreneurship among Rural Women in Iran. . *American Journal of Scientific Research*, 44, 38-43.

Hwang, W., Choi, H., & Shin, J. (2020). A mediating role of innovation capability between entrepreneurial competencies and competitive advantage. *Technology Analysis & Strategic Management*, 32(1), 1-14.

Kabeer, N. (2001). Conflicts over credit: Re-evaluating the empowerment potential of loans to women in rural Bangladesh. . *World Development*, 29(1), 63-84.

Khan, W., Hassan, R., Arshad, M., Kashif, U., Aslam, F., & Wafa, S. (2020). The effect of entrepreneurial orientation and organisational culture on firm performance. The mediating role of innovation. *Journal of Innovation, Creativity and Change*, 13(3), 652-677.

Ligthelm, A. (2005). Informal retailing through home-base micro-enterprises. The role of spaza shops. . *Development Southern Africa*, 22(2), 199-214.

Lu, J., & Beamish, P. (2001). The internationalization and performance of SMES. *Strategic Management Journal*, 22(6-7), 565-586.

Luo, W., Zhang, C., & Li, M. (2022). The influence of corporate social responsibilities on sustainable financial performance: Mediating role of shared vision capabilities and moderating role of entrepreneurship. *Corporate and Environmental Management*, 1266-1282. doi:<https://doi.org/10.1002/csr.2268>

Ministerio de Industria, Comercio y Turismo. (2021). *Cifras PYME. Datos de Febrero 2021*. Madrid. Obtenido de <http://www.ipyme.org/ES/ApWeb/EstadisticasPYME/Documents/CifrasPYME-febrero2021.pdf>

- Minniti, M. (2009). *Gender issues in entrepreneurship*. Now Publisher Inc.
- Minniti, M., & Bygrave, W. (2001). A dynamic model of entrepreneurial learning. *Entrepreneurship theory and practice*, 25(3), 5-16.
- Neck, H., B. C., & Allen, E. (2009). The landscape of social entrepreneurship. *Business Horizons*, 52(1), 13-19.
- Newbold, P., Carlson, W. L., & B.M., T. (2002). *Statistics of Business and Economics* (5th ed.). New York: Prentice Hall.
- Ngo, T., & Wahhaj, Z. (2012). Microfinance and gender empowerment. *Journal of Development Economics*, 99(1), 1-12.
- Niess, C., & Biemann, T. (2014). The role of risk propensity in predicting self-employment. *Journal of Applied Psychology*, 99(5), 1000.
- Ojong, N., Simba, A., & Dana, L. P. (2021). Female entrepreneurship in Africa: A review, trends, and future research directions. *Journal of Business Research*, 132, 233-248.
- Pathak, H., & Gyawali, M. . (2012). Role of Microfinance in Employment Generation: A Case Study of Microfinance Program of Paschimanchal Grameen Bikash Bank. *Journal of Nepalese Business Studies*, 7(1). doi:DOI:10.3126/jnbs.v7i1.6401
- Peredo, A., & McLean, M. (2006). Social Entrepreneurship: A Critical Review of the Concept. *Journal of World Business*, 41(1), 56-65.
- Poulaki, P., L. M., & Valeri, M. (2021). The Role of Female Entrepreneurship to the Development of Agritourism in Greece. *Gender and Tourism* .
- Purohit, T., & Kumar, S. A. (2020). Study on India's New Generation Women Entrepreneurs: Propelling Community Empowerment through Transformative Relationships. *Journal of Business and Management*, 22(9), 36-47.
- Raimi, L., Olowo, R., & Shokunbi, M. (2021). A comparative discourse of sustainable finance options for agribusiness transformation in Nigeria and Brunei: implications for entrepreneurship and enterprise development. *World Journal of Science, Technology and Sustainable Development*, 18(4), 325-350. doi:doi/10.1108
- Ravina-Ripoll, R., & Falvan-Vela. (2022). Mapping, intrapreneurship through the dimensions of happiness at work and internal communication. *Corporate Communications: An International Journal*, Ahead of print.

- Reynolds, H. (1984). *Analysis of Nominal Data*. (2nd ed.). London: Sage Publications.
- Ribes-Giner, G., M.-C. I., Cervelló-Royo, R., & Perello-Marin, M. R. (2018). Domestic economic and social conditions empowering female entrepreneurship. . *Journal of Business Research*, *89*, 182-189.
- Ribes-Giner, G., Moya-Clemente, I., Cervelló Royo, R., & Perelló Marin, M. (2018). Domestic economic and social conditions empowering female entrepreneurship. *Journal of Business Research*, *89*, 182-189.
- Rivera, M. E., Fuentes, M. D., & Ruiz-Jiménez, J. M. (2021). Challenging the context: mumpreneurship, copreneurship and sustainable thinking in the entrepreneurial process of women—a case study in Ecuador. *Academia Revista Latinoamericana de Administración*.
- Runyan, R., Huddleston, P., & Swinney, J. (2006). Entrepreneurial orientation and social capital as small firm strategies: A study of gender differences from a resource-based view. *The International Entrepreneurship and Management Journal*, *2*(4), 455-477.
- Schefczyk, M. (2001). Determinants of success of German venture capital investments. *Interfaces*, *31*(5), 43-61.
- Seelos, C., & Mair, J. (2005). Social entrepreneurship: Creating new business models to serve the poor. . *Business Horizons*, *48*(3), 241-246.
- Shahriari, M., & Mahmoudi-Mesineh, M. (2021). High-performance work systems, entrepreneurial orientation, and innovation strategy in developing countries. *International Journal of Innovation Management*, *25*(8), 2150090.
- Shaikh, E., Tunio, M., & Qureshi, F. (2021). Finance and women's entrepreneurship in DETEs: A literature review. En V. Dung Ngo, D. Khuong Nguyen, & N. Thang Nguyen, *Entrepreneurial finance, innovation and development. A research companion* (págs. 191-209). Taylor & Frnaxis Group. Obtenido de <https://www.taylorfrancis.com/chapters/edit/10.4324/9781003134282-12/finance-women-entrepreneurship-detes-erum-shaikh-muhammad-nawaz-tunio-fiza-qureshi>
- Shela, V., Ramayah, T., & Hazlina, A. (2021). Human capital and organisational resilience in the context of manufacturing: a systematic literature review. *Journal of intellectual capital*, 1469-1930. doi:<https://doi.org/10.1108/JIC-09-2021-0234>



- Simmons, S. A., Wiklund, J., Levie, J., Bradley, S. W., & Sunny, S. A. (2019). Gender gaps and reentry into entrepreneurial ecosystems after business failure. *Small Business Economics*, 53(2), 517-531.
- Stevenson, R., Kuratko, D., & Eutsler, J. (2019). Unleashing main street entrepreneurship: Crowdfunding, venture capital, and the democratization of new venture investments. *Small Business Economics*, 52(2), 375-393.
- Tallia, S., & Hafeez, M. (2022). An empirical investigation of entrepreneurial orientation, social capital, entrepreneurial motivation and value creation: The mediating role of entrepreneurial intention. *Journal of Policy Research*, 8(3), 227-236.
- Than, E. (2014). *Effect of Microcredit accessibility on women empowerment in rural area . Case Study Maubin Township* (Vol. 62). Meral: Doctoral Dissertation.
- Wijaya, P., & Suasih, N. (2020). The effect of knowledge management on competitive advantage and business performance: A study of silver craft SMEs. *Entrepreneurial Business and Economics Review*, 8(4), 105-121.
- Zambrano-Vargas, S., & Vázquez-García, A. (2019). Algunas perspectivas teóricas para el estudio del emprendimiento y el género. *Saber, Ciencia y Libertad*, 14(1), 159-170.
- Zeffane, R. (2015). Gender, trust and risk-taking: a literature review and proposed research model. . *Journal of Enterprising Communities: People and Places in the Global Economy*.

**Table 1. Variables analysed for research questions**

Research question	Variable	Description
RQ1	CEO's age	Age in years of the CEO
RQ1	University studies of the CEO	Whether or not the CEO has university studies (dichotomous)
RQ1	Age of the company	Age in years of the company
RQ1	Employees	Number of employees of the firm
RQ1	Exports	Weight of exports expressed in % of sales
RQ1	Family business	Whether or not the firm is a family firm (dichotomous)
RQ2	Record of Temporary Employment Regulation (RTER)	Indicates whether or not the company has been subject to an RTER during the COVID crisis.
RQ2	Financing	Access to external financing lines and the reasons for it
RQ2	Turnover	Impact of COVID on the company's turnover (Likert 1 to 5, where 1 indicates little impact and 5 indicates a lot of impact).
RQ2	Internacional turnover	Impact of COVID on the company's international turnover (Likert 1 to 5, where 1 indicates little impact and 5 indicates a lot of impact).
RQ2	Profitability	Impact of COVID on the company's profitability (Likert 1 to 5, where 1 indicates little impact and 5 indicates a lot of impact)
RQ2	Productivity	Impact of COVID on the company's productivity (Likert 1 to 5, where 1 indicates little impact and 5 indicates a lot of impact).
RQ2	Investments	Impact of COVID on the company's investments (Likert 1 to 5, where 1 indicates little impact and 5 indicates much impact).
RQ2	Liquidity	Impact of COVID on the company's liquidity (Likert 1 to 5, where 1 indicates little impact and 5 indicates a lot of impact).

Source: own elaboration

**Table 2. T-test of means for the CEO's age variable**

Variable	F-Statistic (Levene's test of equality of variances)	T-test	Average Group Female	Average Group Male
Age of CEO	.614 (.433)	-2.246* (.025)	50.41	51.92
Group Size			260 (16.97%)	1,272 (83.03%)

(\*) Indicates that the test is significant ( $p < 0.05$ )

Source: own elaboration

**Table 3. Chi-square contrast for the CEO University Studies**

Variable		Female	Male	Total
University Studies of the CEO	Yes	164 (63.07%)	627 (49.30%)	791 (51.63%)
	No	96 (36.92%)	645 (50.70%)	741 (48.36%)
Sample Size		260 (16.97%)	1,272 (83.03%)	1,532 (100%)
Pearson's Chi-square (p-value)		17.407** (.00)		

(\*\*) Indicates that the test is significant ( $p < 0.01$ )

Source: own elaboration

**Table 4. T-test of means for the variables Age, Employees and Exports of the Company**

Variables	F-statistics (Levene's test for equality of variances)	T-test	Average Female Group	Average Male Group
Age of the company	4.502* (.00)	.622 (.008)	29.96	28.96
Employees	5.274* (.022)	-3.013** (.003)	18.36	25.77
Exports (%)	14.702** (.034)	-2.649** (.534)	6.06	9.53
Group Size			260 (16.97%)	1,272 (83.03%)

(\*) Indicates that the test is significant ( $p < 0.05$ ); (\*\*) Indicates that the test is significant ( $p < 0.01$ )

Source: own elaboration

**Table 5. Chi-square test for the Family Business variable**

Variable		Female	Male	Total
Family Business	Yes	204 (78.4%)	911 (72%)	1,115 (72.78%)
	No	56 (21.53%)	361 (28.38%)	417 (27.21%)
Sample Size		260 (16.97%)	1,272 (83.03%)	1,532 (100%)
Pearson's Chi-square (p-value)		5.212 (.13)		

Source: own elaboration

**Table 6. Chi-square contrast for the RTER variable**

Variable		Female	Male	Total
RTER	Yes	108 (41.53%)	499 (39.23%)	607 (39.62%)
	No	152 (58.46%)	773 (60.77%)	924 (60.,38%)
Sample size		260 (16.97%)	1,272 (83.03%)	1,532 (100%)
Pearson's Chi-square (p-value)			17.407 (.488)	

Source: own elaboration

**Table 7. Chi-square contrast for variable Financing**

Variable		Female	Male	Total
Financing	Yes	138 (53.08%)	687 (54%)	825 (53.85%)
	No, because my company does not need it as it is not making investment	32 (12.31%)	104 (8.18%)	136 (8.88%)
	No, because my company does not need it as it is self-financing	76 (29.23%)	455 (35.77%)	531 (34.66%)
	No, because ven if I needed it, I don't think I would get the funding	14 (5.38%)	26 (2.04%)	40 (2.61%)
Sample size		260 (16.97%)	1,272 (83.03%)	1,532 (100%)
Pearson's Chi-square (p-value)			15.060** (.002)	

(\*\*) Indicates that the test is significant ( $p < 0.01$ )

Source: own elaboration

**Table 8. T-test of means for variable of COVID impact on Organisational Performance**

Variables	F-statistics (Levene's test for equality of variances)	T-test	Average Female Group	Average Male Group
Turnover	1.605 (.206)	3.789** (.00)	3.51	3.11
Internacional Turnover	1.182 (.278)	.704 (0.488)	3.42	3.22
Profitability	.088 (.767)	4.066** (.00)	3.50	3.07
Productivity	1.149 (.284)	2.878** (.004)	3.35	3.04
Investment	.956 (.328)	2.972** (.003)	3.63	3.24
Liquidity	7.850** (.005)	2.040* (0.42)	3.16	2.90
Grup Size			260 (16.97%)	1,272 (83.03%)

(\*) Indicates that the test is significant ( $p < 0.05$ ); (\*\*) Indicates that the test is significant ( $p < 0.01$ )

Source: own elaboration