Differences in the financial approach to entrepreneurship from a gender perspective

Roberto Cervelló Royo*, Ismael Moya Clemente, Rosario Perelló Marín, Gabriela Ribes Giner

Faculty of Business Administration and Management (FADE), building 7J, Universitat Politècnica de València, Valencia, Spain

Email: rocerro@esp.upv.es
Email: imoya@esp.upv.es
Email: rperell@upvnet.upv.es
Email: gabrigi@omp.upv.es

*Corresponding author (Roberto Cervelló Royo)

Abstract:

The economic situation worldwide has led to a global rise in female entrepreneurship. Furthermore, entrepreneurial activity has become very important and is considered fundamental to adopt measures that encourage and correct deficiencies. To this end, the purpose of this work is to study the financing of this venture from a gender perspective by taking a sample of entrepreneurs from a Spanish Mediterranean region. We analysed factors of capital structure, company ownership and funding sources (formal and informal), among other aspects, with a sample of 192 surveyed entrepreneurs. By multivariate analysis techniques, the statistically significant differences that appeared between male and female entrepreneurs were studied. This study is important and might be useful because it provides an overview of the current situation of entrepreneurs and funding sources in not only the studied Mediterranean region, but also in similar Mediterranean and/or Spanish regions.

Keywords: entrepreneurship, gender, finance, capital structure, company ownership, venture, funding sources, region, entrepreneurial activity

Reference to this paper should be made as follows: (xxxx) ‘Differences in financial approach to entrepreneurship from a gender perspective’, Int. J. xxxxxxxxxxx xxxx.

Biographical notes: Roberto Cervelló Royo is professor in the Department of Economics and Social Sciences, Universitat Politècnica de Valencia (UPV), Spain. He is Economist and MSc in engineering from the UPV (Spain). He received his PhD at the UPV in 2008. He worked in the private sector and
The Authors

public institutions before joining UPV in 2005. He has collaborated in public
and private research projects. Dr Cervelló-Royo current research interests
include sustainable entrepreneurship, female entrepreneurship, sustainable
development, financial, regional and urban economics.

Ismael Moya Clemente is full professor in the Department of Economics and
Social Sciences, Universitat Politècnica de València (UPV), Spain. He is
engineer from the UPV (Spain). He received his PhD at the UPV in 1994. He
was Vice-Rector for Academic Planning and Faculty at UPV and Dean at
Faculty of Business Administration and Management in UPV. Moya-Clemente
PhD. current research interests include sustainable entrepreneurship, female
entrepreneurship, financial economics, corporate finance and active learning in
higher education.

M Rosario Perello-Marin is an associate professor in the Department of
Business Organization, Universitat Politécnica de Valencia (UPV), Spain. She
is industrial engineer from the UPV (Spain) and MBA from IE (Instituto de
Empresa Business School, Spain). She received her international PhD at the
UPV in 2015. She worked as an associate professor at Cardenal Herrera-Ceu
University and ESIC MARKETING AND BUSINESS SCHOOL before
joining UPV in 2012. She has been previously working as managerial
consultant for 12 years. Dr Perello-Marín current research interests include
sustainable entrepreneurship, female entrepreneurship, sustainable
development, development of managerial skills, and active learning in higher
education.

Gabriela Ribes-Giner is a professor in the Department of Business
Organization, Universitat Politécnica de Valencia (UPV), Spain. She
is industrial engineer from the UPV (Spain). She received her PhD at the UPV in
2012. She was Director of academic management area at UPV and Vice-dean
of students and academic entrepreneurship at Faculty of business in UPV.
Ribes-Giner PhD. current research interests include sustainable
entrepreneurship, female entrepreneurship, human resources, development of
managerial skills, and active learning in higher education.

Acknowledgements

This work has been funded by the R+D project for emerging research groups
with reference (GVA) GV/2016/078.

1 Introduction

In the last few decades, the presence of women in the business world has considerably
increased (Noguera, Álvarez & Urbano, 2012; Brush, Bruin & Welter, 2009). This
milestone implies socio-economic advances that have brought about major changes in
society (Ferreiro, 2013). Thus in order to fully understand the role of women in the
entrepreneurship context, it is very important to consider their situation in Spanish
society (Alonso & Blasco, 2007; Ardoy, 2006; Pérez-Díaz, Chuliá, & Valiente, 2000) which will contribute to more easily understand enablers of female entrepreneurship. By taking the gender approach and its implications for high-quality entrepreneurship as a starting point, several studies highlight the effect or influence of business intentions when studying differences in performance among companies owned by men and women (Davis & Shaver, 2012, Gupta et al., 2009; Kolvereid, 1996).

In times of crisis, women are more likely to participate in low-quality jobs or entrepreneurship than men owing to their limited livelihood options (Paul & Sarma 2013; Allen et al. 2008; Arenius & Minniti 2005). Finally, it should be noted that, among corporate human capital components, founders’ level of educational achievement has been considered a significant factor for a company’s growth potential, innovation and internationalisation (Guzmán & Santos, 2001), which imply another barrier for women in certain geographical areas.

Women entrepreneurs tend to be more risk-averse and less self-confident than men, especially in areas like financial decision making and investments, and they encounter credibility problems when dealing with bankers (Poggesi, Mari and De Vita, 2018).

Women's entrepreneurship has played a fundamental role in several regions of Spain. In particular, the Valencian Community is one of the areas in the Mediterranean Region where it has become more deeply rooted in recent years. The last economic crisis, together with today’s economic and labour situation, have made it even more prominent. In 2018, in the Valencian Community more than 80% of the entrepreneurial businesses was in tertiary and service sectors, and mostly of a "modest" size. For example, 50% are individual initiatives, and only 15% generate more than five jobs, usually with a small capital of between €3,000-5,000. Moreover, 25% of projects are undertaken in the innovation field (Entrepreneurship Strategic Plan for Valencian Community, 2020)

This above-cited strategic plan has determined that, in relation to the environment conditions in which to undertake entrepreneurship, this geographical area has positive aspects, such as infrastructure, information and public support programmes, but it must improve in other areas like financing and bureaucracy.

In line with this argument, the purpose of this work was to analyse if there were differences related to company ownership, own financing, assistance to entrepreneurship, and financing and financing sources for other entrepreneurs from a gender perspective. With multivariate analysis techniques, the statistically significant differences between male and female entrepreneurs were studied. To this end, a survey was devised and is detailed in the methodology section. The study was carried out with a sample of entrepreneurs from a Spanish Mediterranean region.

2 Theoretical background

By applying the theory of planned behaviour, several authors (Ajzen, 1991, Haus et al., 2013) have attempted to explain gender differences in business intentions based on motivational constructs that refer to attitudes towards starting a business, stakeholders’ expectations and feelings of control over the creation process.
The Authors

It can be stated that, according to these studies, women generally do not set up a business to get financial gain, but to pursue intrinsic objectives (e.g., independence, flexibility to interact with the family-occupational commitments). Hence their companies tend to be smaller, grow more slowly and are less profitable than men-owned businesses (Brush 1992, Rosa & Hamilton 1994, Welter et al 2006, Gupta et al 2009). Likewise according to Cliff (1998), women are more likely than men to set growth limits that reflect personal comfort thresholds, and to show more concern about risks of high-growth patterns. Women also heavily rely on personal than external sources of debt and equity for both start-up capital and follow-on investments (Coleman & Rob, 2009).

Women owners of companies are generally considered to display more aversion to risk; that is, they tolerate less risk than entrepreneurs (e.g., Jianakoplos & Bernasek, 1998; Eckel & Grossman, 2008; Davis & Shaver, 2012) and, consequently, have fewer expectations as regards their commercial potential in terms of growth, innovation or export activities.

Thus according to several authors (Hisrich & Brush, 1984, Lerner & Almor, 2002), female entrepreneurs’ lack certain financial skills, which means that they cannot fully exploit their ability to innovate and tend to be less export-oriented than men (Du Rietz & Henrekson, 2000; Orser et al. 2010).

In particular, restrictions to access resources, especially debt and capital, are considered a key reason to limit not only their growth potential, which is considered relatively low, but also the performance of women-owned companies (Alsos et al., 2006; Marlow & Patton, 2005).

However, the gender discrimination issue in financing for entrepreneurship has been widely reported in the literature, which highlights the difficulty faced by businesswomen to obtain public and private funding (Stefani & Vacca 2013; Pines et al., 2010; Horseback riding & Swift 1990; Orhan 2001; Coleman 2000; Calcagnini et al., 2015; De Bruin et al., 2006).

Access to financing by women who are business owners is made even more difficult in times of crisis because, given the uncertainty and low levels of liquidity, financial institutions are reluctant to offer loans, especially to companies owned by women as they tend to be smaller and more vulnerable (Paul & Sarma 2013; Pines et al. 2010).

Financial exclusion, along with other forms of exclusion, e.g. from the labour market or social exclusion, is a particularly more serious matter for female entrepreneurship in times of economic crisis than for male entrepreneurship (Pines et al., 2010).

Recent entrepreneurship research shows that start-ups with high-growth expectations usually rely more often on external equity funding (Hechavarria et al., 2016). In particular, women owners of high-growth firms tend to choose personal equity and business equity for their small businesses to grow (Yacus et al. 2019). However, other studies reveal that women have made progress in attracting venture capital, but a significant gender gap still exists (Brush et al., 2018).

Gender differences in access to capital are viewed as an impediment for enterprise growth and job creation in a number of innovation-driven economies (Coleman, Henry, Orser, Foss & Welter, 2019). Hence it can be stated that no consensus has been reached
Title

about either the best funding source for entrepreneurs or preferences when considering gender differences. In this vein, the homoplly mechanism explains group composition in terms of the similarity of members’ characteristics, such as gender and the like. Some studies have investigated homophily theories of the prevalence of homogeneous entrepreneur teams (Steffens et al., 2012, Ruef et al. 2003).

Therefore, the research question that we would like to answer is the following: if differences in entrepreneurs’ exist funding according to gender.

3. Data and methodology

As previously mentioned, an empirical study was conducted with a sample of entrepreneurs from a Spanish Mediterranean region. The survey draws on the questionnaires previously used by GEM (2014), research on female entrepreneurial skills (2012) and the work done by Foster and Norman (2016).

The survey was administered to 192 entrepreneurs from a Spanish Mediterranean region. It was conducted with the collaboration of different local government agencies (IVACE, CEEI) and institutions (Public Universities, Chamber of Commerce, Entrepreneur Associations, business accelerators, etc.) Data collection took place between March and July 2017. By means of a self-administered online questionnaire, a non-probabilistic combined sample for convenience and snowball was used.

The statistical techniques herein employed included multivariate analyses. Chi-square tests were applied to study any significant differences in variables between women and men. The statistical package SPSS was used for this purpose. The sampling error was 7% at the 95% confidence level for a dichotomous question in the worst case (p=q=50%).

We particularly tested to see whether certain characteristics were independent of an entrepreneur’s gender or if there was an association between an entrepreneur’s characteristics and gender. The null hypothesis of gender independence was rejected. whenever the p value related to chi-square went below the selected significance level (0.1). Thus it can be stated that the differences related to an entrepreneur’s gender were statistically significant (variables were independent). These techniques were selected because they were considered the most appropriate ones to respond to the above-stated goals.

3. Results

Firstly, it is important to highlight some socio-demographic aspects of our study sample. Of the whole sample, it is worth noting that 56.7% of enterprising people were women and 43.3% were men. The average age of the entrepreneurs in our study area ranged from 35 to 44 years. The Spanish Mediterranean region where the study took place has a marked agricultural, textile industry, logistic, tourism and hospitality background. Our sample comprised entrepreneurs from different technological and traditional sectors:
information and technology, food research, tourism, plant research, etc. Most of the companies are small and medium enterprises (SMEs) and many entrepreneurs have participated in previous entrepreneurial ventures.

This study analysed the following financial aspects of entrepreneurship: own financing, assistance for entrepreneurship, source of financing, financing for other entrepreneurs.

3.1. Percentage of company ownership

<table>
<thead>
<tr>
<th>TABLE 1. BUSINESS OWNERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>What proportion of the business do you own personally?</td>
</tr>
<tr>
<td>Count</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>All the business</td>
</tr>
<tr>
<td>A majority part of the business</td>
</tr>
<tr>
<td>A minority part of the business</td>
</tr>
</tbody>
</table>

**Pearson chi-square**

<table>
<thead>
<tr>
<th>What proportion of the business do you own personally?</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All the business</td>
<td>5.521</td>
<td>2</td>
<td>.063*</td>
</tr>
</tbody>
</table>

*. The chi-square statistical is significant at 0.1.

**Source: The Authors**

As seen in Table 1, the p-value of 0.063 of the Chi2 test indicates significant differences in business ownership between men and women, with a higher proportion of women owning all the business. Thus more men owned a minority part of a business. This could be related to the fact that women lack certain financial skills (Hisrich and Brush, 1984; Lerner and Almor, 2002) and it is, therefore, easier for them to contribute all their capital and be business owners rather than seeking other types of financing.

According to Pines et al (2010), Paul and Sarma (2013) and Marlow and Patton (2015), not being able to access finance is related to a more limited social capital, and may also be related to the restrictions that women face when accessing financial resources,
especially in times of crisis, when financial exclusion and discrimination are more serious for the female population (Orhan, 2001).

3.2 Contribution of financing to the company

### TABLE 2. OWN BUSINESS FINANCING

<table>
<thead>
<tr>
<th>Did you contribute all the money needed to start this business?</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>%</td>
<td>Count</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>100.0%</td>
<td>83</td>
</tr>
<tr>
<td>No</td>
<td>118</td>
<td>61.5%</td>
<td>57</td>
</tr>
<tr>
<td>Yes</td>
<td>74</td>
<td>38.5%</td>
<td>26</td>
</tr>
</tbody>
</table>

**Pearson Chi-square**

<table>
<thead>
<tr>
<th>Did you contribute all the money needed to start this business?</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.214</td>
<td>1</td>
<td>.073*</td>
</tr>
</tbody>
</table>

* *The chi-square statistical is significant at 0.1.*

Source: The Authors

Significant differences appeared in the money contributed to the business (see Table 2), with a p-value of 0.073 for Chi2 indicating that women contributed more money to their business.

Once again, regarding women’s problems to access financing, and regardless of it being capital or debt (Brush, 1992), we found that most women owned their businesses (Capital) and also provided higher percentages of total financing (Rosa and Hamilton, 1994; Orhan, 2001). These findings confirmed that financial institutions are reluctant to finance women's companies because they are smaller and more vulnerable. This is further evidence of financial exclusion (Pines et al, 2010).

3.3 Knowledge of aid for entrepreneurship

As seen in Table 3, no statistically significant differences were found in support for private organisations in gender terms. In both cases, entrepreneurs considered that there was not enough support available. More male and female entrepreneurs believed that
there was not enough public means to support entrepreneurship. No gender differences appeared when considering if public institutions provided adequate information to encourage entrepreneurship, but significant gender differences emerged in knowledge about existing aid for entrepreneurship.

Men know more about aid for entrepreneurship than women ($p$-value $= 0.035$). All this could be related to women lacking certain financial skills (Hisrich & Brush, 1984, Lerner & Almor, 2002). The difficulty that women entrepreneurs face to obtain financing from public sources is well-known (Stefani & Vacca, 2013). According to Pines et al. (2010), women’s businesses tend to receive less financial support from public institutions. One aspect that needs improving is women’s financial formation so as to not lose public (or private) aid opportunities.

| Do you think you receive enough financial (economic) support from private companies (banks, etc.) | Gender: | Total | Male | Female |
| Do not agree/indifferent | Count | % | Count | % | Count | % |
| Total | 192 | 100.0% | 83 | 100.0% | 109 | 100.0% |
| Do not agree/indifferent | 151 | 78.6% | 64 | 77.1% | 87 | 79.8% |
| Agree | 41 | 21.4% | 19 | 22.9% | 22 | 20.2% |

| Do you think the economic means from public institutions are enough to support entrepreneurship? | Gender: | Total | Male | Female |
| Do not agree/indifferent | Count | % | Count | % | Count | % |
| Total | 192 | 100.0% | 83 | 100.0% | 109 | 100.0% |
| Do not agree/indifferent | 156 | 81.3% | 68 | 81.9% | 88 | 80.7% |
| Agree | 36 | 18.8% | 15 | 18.1% | 21 | 19.3% |

| Do you think that public institutions provide suitable information to encourage entrepreneurship? | Gender: | Total | Male | Female |
| Do not agree/indifferent | Count | % | Count | % | Count | % |
| Total | 192 | 100.0% | 83 | 100.0% | 109 | 100.0% |
| Do not agree/indifferent | 155 | 80.7% | 66 | 79.5% | 89 | 81.7% |
| Agree | 37 | 19.3% | 17 | 20.5% | 20 | 18.3% |

<p>| Do you know about existing financial aid/support for entrepreneurship? | Gender: | Total | Male | Female |
| Do not agree/indifferent | Count | % | Count | % | Count | % |
| Total | 192 | 100.0% | 83 | 100.0% | 109 | 100.0% |
| Do not agree/indifferent | 100 | 52.1% | 36 | 43.4% | 64 | 58.7% |
| Agree | 92 | 47.9% | 47 | 56.6% | 45 | 41.3% |</p>
<table>
<thead>
<tr>
<th>Agree vs. Disagree</th>
<th>Gender:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think you receive enough financial (economic) support from private companies (banks, etc.)?</td>
<td>Chi-square</td>
</tr>
<tr>
<td></td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>Do you think the economic means from public institutions are enough to support entrepreneurship?</td>
<td>Chi-square</td>
</tr>
<tr>
<td></td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>Do you think that public institutions provide suitable information to encourage entrepreneurship?</td>
<td>Chi-square</td>
</tr>
<tr>
<td></td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>Do you know about existing financial aid/support for entrepreneurship?</td>
<td>Chi-square</td>
</tr>
<tr>
<td></td>
<td>df</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
</tr>
</tbody>
</table>

* The chi-square statistical is significant at 0.1

Source: The authors
As seen in Table 4, women receive more funding from family members, while men choose partners to provide their companies with capital who are not family. The p-value of 0.044 indicates that these significant differences exist in the form of financing (Alsos et al. 2007; Marlow & and Patton, 2005). According to these results, women are financed mainly by family members as opposed to contributions made by partners, which is the main source of financing for men (Pines et al. 2010).

Therefore, the impact of a crisis is stronger on female entrepreneurship.
3.3 Providing funds to other ventures

Finally, it should be noted that significant differences appeared (p-value = 0.022) as men doubled women when asked about providing financing to other entrepreneurs/ventures (Eckel and Grossman, 2008). This could be related to women’s greater aversion to risk, which makes them more conservative about funding the businesses of others (Jianakoplos and Bernasek, 1998).

Table 5 Providing funds to other ventures
In the last 3 years, have you personally provided funds to a new company started by someone else (this does not include purchasing shares or mutual funds)?

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count</strong></td>
<td>192</td>
<td>83</td>
<td>109</td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>No</strong></td>
<td>171</td>
<td>69</td>
<td>102</td>
</tr>
<tr>
<td><strong>89.10%</strong></td>
<td>83.10%</td>
<td>93.60%</td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td>21</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td><strong>10.90%</strong></td>
<td>16.90%</td>
<td>6.40%</td>
<td></td>
</tr>
</tbody>
</table>

Pearson Chi-square

<table>
<thead>
<tr>
<th></th>
<th>Chi-square</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last 3 years, have you personally provided funds to a new company started by someone else (this does not include purchasing shares or mutual funds)?</td>
<td>5.278</td>
<td>1</td>
<td>.022*</td>
</tr>
</tbody>
</table>

* The chi-square statistic is significant at 0.1

Source: The Authors

5 Conclusions

Entrepreneurship has notably increased in recent years, which has been undoubtedly driven by the major economic crisis. Despite women’s growing entrepreneurial aspect, which has been complicated for various economic, social and financial reasons, not enough academic works have focused on their peculiarities, especially those related to forms of financing.

In order to provide further knowledge on these aspects, our study focused on entrepreneurs from a Spanish Mediterranean region using a survey devised and based on the 2014 GEM report, study-research on entrepreneurial skills among women (Pines et al. 2010) and the work of Foster and Norman (2016).

Regarding the capital structure, more women owned companies than men. Therefore, significant differences appeared in business ownership between men and women, with a higher proportion of women owning the entire business, which was usually smaller for men.
This could be related to the fact that it is simpler and faster for women entrepreneurs to contribute all their capital and to own their own business than seeking other financing types, which might prove more complex. It could also be related to the restrictions that women face when accessing financial resources, especially in times of crisis, when financial exclusion is more serious for female entrepreneurship.

Similarly when studying the contribution of own capital to a business, women contribute more money themselves. Once again, this could be related to the problems that women face to access financing, regardless of it being capital or debt. More women own their own businesses and also contribute more to total funding. This reveals that financial institutions may be reluctant to grant financing to companies created by women. This is yet another factor of financial exclusion.

Regarding knowledge of entrepreneurship support, more men are knowledgeable about such aid. Hisrich and Brush (1984) and Lerner and Almor (2002) point out that this may be related to the fact that the women who wish to set up their business lack certain financial skills. We highlight the difficulty of female entrepreneurs to obtain financing from public sources. So Public Administrations should take this fact as an aspect that needs improving, as well as the financial training of future entrepreneurs so as to not lose opportunities to obtain economic aid.

Moreover, women choose family members to obtain capital for their companies, while men prefer resorting to partners. In times of economic crisis, financial institutions are more reluctant to grant loans to women who wish to set up their own business. Therefore, it can be stated that the financial impact of crises is stronger on female entrepreneurship.

Finally, it should be noted that twice the number of men (vs. women) finance other entrepreneurs, which may indicate female entrepreneurs’ greater aversion to financial risk.

In line with these conclusions, it can be stated that female entrepreneurs have a more conservative profile (e.g. they like to own their company, they trust those people who they are close like family relatives, etc.). Entrepreneurial men have a riskier profile (e.g., they diversify property, they prefer external partners with no family ties, they invest in other companies/ventures, etc.).

With all these findings, we were able to answer the research question: if differences in entrepreneurs’ exist funding according to gender.

This study is important and can be useful for Spanish and regional governments as it offers an overview of entrepreneurs’ current situation in not only the studied Spanish Mediterranean region, but also in similar Mediterranean and/or Spanish regions. Furthermore, it will help both private and public institutions to set up funding programmes and/or initiatives to develop and reinforce the financing of entrepreneurship in areas with similar needs and characteristics. As future research lines, it might be interesting to: on the one hand, examine in-depth the homophily preference of entrepreneurs; that is, how entrepreneurs prefer to seek funding from investors with similar characteristics, such as gender; on the other hand, and based on the interesting
The Authors

results herein obtained, design a second broader stage to include aspects like sectors, size of companies and entrepreneur stage.

References


Title


