



Comparative Analysis of Factors Influencing Informal Investors of Spain and the United States

María de las Mercedes Barrachina, San Pablo CEU University, Spain

 <https://orcid.org/0000-0003-4718-4495>

Neeta Baporikar, Namibia University of Science and Technology, Namibia & University of Pune, India*

 <https://orcid.org/0000-0003-0676-9913>

ABSTRACT

Informal investors play a significant and critical role in the investment field. Apart from that, informal investors promote entrepreneurship as they are a funding source especially for small and micro entrepreneurs. The objective of this analysis is to identify the factors that characterize the informal investors in Spain and the United States. The basis for this analysis is the data from the website Global Entrepreneurship Monitor (GEM) from the period 2001-2015 at the global individual level for Spain and for United States. The purpose is to compare the existing differences between the factors that characterize an informal investor in different economic periods (pre-crisis, crisis, post-crisis) in two different entrepreneurial environments, Spain and United States, to identify measures or actions that can be implemented by the national and local organisms to promote informal investment and entrepreneurship.

KEYWORDS

Development, Entrepreneurship, Funds, Informal Investment, Opportunity, Rate of Return, Small Businesses, Spain, United States

INTRODUCTION

In recent years, most sectors have benefited from an explosion in the creation of startups in different entrepreneurial environments (Baporikar, 2015). In relation with the entrepreneurship, there is a growing interest in the role of informal investors in the creation of new and women entrepreneurs (Dzingirai & Baporikar, 2021; Baporikar & Akino, 2020). Hence, informal investors play a significant and critical role in the investment field. Apart from that informal investors promote entrepreneurship as they are a funding source especially for small and micro entrepreneurs (Baporikar, 2016; Baporikar 2021b). Hence understanding the factors that influence informal investors will enable in identifying the characteristics, which would aid the governments and regulators to promote different measures that help economic growth. Several studies (Davidsson *et al.* 1994; Storey 1994; Baporikar & Deshpande, 2020) have shown that entrepreneurial ventures are one of the main contributors to the creation of

DOI: 10.4018/IJABE.311051

*Corresponding Author

This article published as an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

new jobs, and that the formation of new firms is important for regional development. However, in many countries there are indications that a shortage of risk capital in the institutional capital market could limit development of entrepreneurial ventures (Cressy and Olofsson 1996, Hughes 1996, Lumme *et al.* 1998).

A number of studies concerning informal investors have been carried out over the last two decades. One main conclusion from previous research has been that the informal venture capital market is very heterogeneous, and that classifications for informal investors are needed in order to more accurately depict the informal venture capital market. On the other hand, a number of informal investor studies have shown that there are imperfections in the informal venture capital market (Mason and Harrison 1991, Lumme *et al.* 1998). This is largely due to information inefficiencies in the market. Entrepreneurs are hampered because they cannot find a suitable informal investor, and informal investors find it difficult to identify interesting investment proposals. As a consequence, many informal investors report that they are not able to make as many investments as they want, and the entry barriers for many potential informal investors are too high (Freear *et al.* 1992, Lumme *et al.* 1998, Reitan and Soë rheim 2000). This suggests that if the appropriate private or public provisions and stimulants were in place, the number of informal investors, as well as the number of investments, would increase. However, there is the danger that policy initiatives will get ahead of our understanding of the informal venture capital market (Mason 1996).

The focus on informal investors was initiated by seminal works by William Wetzel in the early 1980s (Wetzel 1981, 1983). Since then we have seen a diffusion of research in a number of countries around the world, among them: Canada (Riding *et al.* 1993), United Kingdom (Harrison and Mason 1992, Coveney and Moore 1998), Sweden (Landstrom 1993), Finland (Lumme *et al.* 1998), Australia (Hindle and Wenban 1999), Singapore (Hindle and Lee 1999), Japan (Tashiro 1999), and Norway (Reitan and Sorheim 2000). The research regarding informal investors is rather young; hence researchers have considered it to be important to undertake studies for quantification and description of the informal investor market. Therefore, a number of the empirical studies discuss matters such as the size of the market, investor characteristics, decision processes, information channels, and the available private and public initiatives meant to stimulate the informal venture capital market; those which Mason and Harrison (2000) call the 'first generation' of studies on informal investors. However, there are few studies which do comparison among different countries and these studies are important as the informal investors' arena is country specific due the variation in the social, economic, culture and institutional aspects. Hence the objective of this study is to compare the existing differences between the factors that characterize an informal investor in different economic periods (pre-crisis, crisis, post-crisis), in two different entrepreneurial environments, such as Spain and United States to identify measures or actions that can be implemented by the national and local organisms to promote informal investment and entrepreneurship.

LITERATURE REVIEW

Ajzen's (1988, 1991) work on the theory of planned behavior provides a theoretical framework for understanding the decision of individuals to make informal investments. The theory of planned behavior deconstructs human behavior as being guided by three constituent belief elements: beliefs about the likely consequences of the behavior, beliefs about the expectations of other people and beliefs about the presence of factors that may affect performance of the behavior. The investment behavior is dependent on the actions and attributes of the entrepreneur, as well as factors internal to the investor (Baporikar, 2020). Self-efficacy takes on even greater importance in this context. Additionally, the other component of perceived behavioral control (Ajzen, 2002), controllability that is beliefs about the extent to which performing the behavior is up to the investor also assumes a significant role in the behavior of investors.

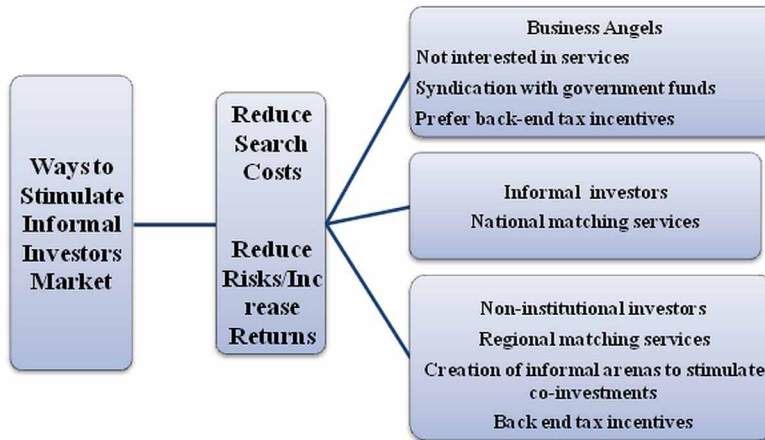
Several studies identify that informal investments (that is, those that cover the financing needs of business plans in their entrepreneurial stage) contribute to entrepreneurial activity at national level (Bygrave et al, 2002, Autio et al, 2003). In the literature reviewed, the concept of “informal investor” and “business angel” is used in a similar way. The term “business angel” was first used by William Wetzel, a professor at the University of New Hampshire in a study he conducted on the financing of entrepreneurs (Wetzel, 1983). This study identified “business angels” as the agents that finance companies at their earliest stage, in which other investors are reluctant to offer financing and identified the profile of “business angels” based on their demographic characteristics, preference patterns and expectations.

Regarding the use of the concept “informal investor” and “business angel” interchangeably, there are different opinions in the literature reviewed. The authors Mason and Harrison (2000) define informal investors as “individuals with high purchasing power who, acting alone or formally or informally syndicated with others, invest their own money directly in an unquoted business with which they do not maintain a family relationship.” The main difference of this definition with a “business angel” is that it does not specify that informal investors actively participate in the projects they finance, so it does not consider the transfer of smart capital. This definition of “informal investor” also does not consider investments made in businesses of family or friends. However, not all authors think in this way and there are several authors who consider that investments in businesses of family, friends or people close to the entrepreneur (3Fs) is also a form of investment and should be included, there is currently debate on the topic. Moreover there is proposal for subdivision of the informal financing segment, also called informal venture capital, into three identities namely, business angel, informal investors and non-institutional investors (Avdeitchikova et. al, 2008). A brief discussion on these three identities is below:

1. **Business angel:** Are as investors who are actively involved and contribute smart capital to projects. ‘Business angels’ are characterized by a very high investment activity level, in addition to possessing high competence. They can contribute both knowledge and skills to the firms in which they invest, and they generally engage in many informal investments.
2. **Informal investors:** Are groups that include not only the “business angel”, but also the private investors that have a non-active involvement with the projects in which they invest. This shows a high investment activity level but a low competence in founding and running entrepreneurial ventures. They seem to have the will to invest, but they have limited competence with which to add value to the firms in which they invest. This means that their contribution could be rather limited, beyond that of providing financial resources.
3. **Non-institutional investors:** Category includes investments made by family and friends of the partners who lead the project. They are characterized by a low investment activity level and a low competence in founding and running entrepreneurial ventures. This means that they make very few informal investments, and have only limited knowledge and skills with which to add value to the firms in which they invest.

Figure 1 shows the informal capital market stimulation ways.

Figure 1. Informal capital market stimulation ways (Source: Self-Developed)



On the other hand, the fast-growing firms very often issue equity in several rounds. By issuing equity to the competency-rich investors in the first round, and then targeting informal and non-institutional investors in the second round, entrepreneurs can benefit from all groups of informal investors.

However, the core of this problem seems to lie in the lack of, or uneven distribution of, information between the different actors in the market (Cosh and Hughes 1994, Storey 1994). First, there are certain groups of investors who, to a larger degree than other groups, are able to identify investment proposals. Second, it is not enough to identify investment projects. The investor must also evaluate the investment proposals; in view of both market and agency risk (Fiet 1991). Market risk concerns the uncertainties in the portfolio firm's market and with the competition. Informal investors can use their aggregated knowledge, often about specific industries, in order to reduce the market risk. Agency risk is related to an entrepreneur's inability to make decisions that are in the best interest of the investor (Landstrom 1992). Some kind of 'hands on' involvement is often necessary in order to handle agency risk. However, the investors in each informal investor category will handle market and agency risk differently, due to the variations in their experience, qualifications, and networks. Overall, the imperfections in the market will lead to fewer investments by active investors, in addition to high entry barriers for potential investors.

Gaston (1989) divided informal investors into what he perceived were the ten most important informal investor classifications. He provides a market profile for each category and compares the various categories with the profile of the 'US composite angel'. The main conclusion of the study was that the informal venture capital market is very heterogeneous, and that entrepreneurs should be aware of this when they are searching for an informal investor. Informal investors possess different qualities and entrepreneurs ought to decide in advance what kind of investors they need for their venture (Baporikar, 2019). Landstrom (1992) focused on the relationship between the informal investor and the receiving firm's entrepreneur, and claims that it is important how the informal investor 'views' their portfolio firms. Informal investors regard the firm as a 'subject' and will emphasize the support function, and they will rely on more informal interaction with the firms in which they invest. This is in contrast to investors who view the firm as an 'object', where the informal investor's driving force is financial profit. These investors work less actively with the firm and focus on more formal interactions.

Freear *et al.* (1994) divided respondents into two categories: active informal investors and potential informal investors. The two groups of investors seem to have a lot in common, but differ in other respects. An interesting fact is that both the active investors and the potential investors are, to a large

extent, interested in making investments in geographical proximity to their home or place of work. Table 1 provides early classification of investors which is significant and provides understanding of the area of informal investors.

Table 1. Early categorization of investors

Author/s	Methodology	Classification
Gaston (1989)	A series of survey studies comprising the total of 425 informal investors in USA	Business devils Godfather Peers Corporate achievers The stockholder High-tech angels Very Hungry Angels
Landstrom (1992)	Survey of 62 informal investors in Sweden	Individuals in the business environment Individuals making few investment and small amount of capital per deal Individuals who make few investment but larger amounts per deal Professional informal investors (frequent investment and large amounts per deal)
Freear <i>et al.</i> (1994)	Survey of 184 net worth individuals in Connecticut and Massachusetts in USA	Active informal investors Potential informal investors
Stevenson and Coveney (1994)	Survey of 262 informal investors in UK	Virgin investor Latent investor Wealth maximizing Entrepreneurial Income seeker Corporate investor

Source: Literature Review

However, according to the GEM project, a broad definition of the “informal investor” concept presented by Mason and Harrison (2000) is used and is known as the 3Fs is included for its acronym in English (Family, Friends, and Fools). This inclusion is because the micro-investments of these agents represent 80% of the external resources that start-ups need and therefore are important enough to be included in informal financing (Reynolds et al, 2003). In recent years, researchers have studied the characteristics of “informal investors” in several countries such as the United States (Aram, 1989), United Kingdom (Harrison and Mason, 1992), Sweden (Landström, 1993), Finland (Lumme et al, 1996), Japan, (Tashiro, 1999), or Singapore (Wong and Ho, 2007).

From these studies, it is concluded that the typical profile of “informal investor” is defined as an entrepreneur or executive man (active or already retired) with a high level of income, entrepreneurial experience and extensive experience in the business world with the will to invest between 20,000 and 250,000 euros per project. Among the studies that try to identify the factors that define the profile of an “informal investor”, there are some that try to develop a classification system for these agents, where the first analysis of this type stands out by establishing 10 different categories (Gaston, RJ, 1989). Subsequently, other authors establish other types of classifications, the classification system of 9 types (Benjamin and Margulis, 2005), the one of 3 types (Mason, 2006), and the one of 5 types (Evanson and Beroff, 1998) being relevant.

According to the report of the Spanish Association of Business Angels of 2019, it highlights that in Spain 45% of investors have less than 5 investments, that 91% of investors consider training

is important, in addition 70% have experience professional related to technology and finance, and in general they show a limited annual investment capacity, since 67% have less than 100,000 euros of investment per year.

In the literature there is evidence of the critical role of trust when managing the relationships between the entrepreneurs and the investors, as well as regulating the quality of those relations (Kaiser & Berger, 2021). Another interesting approach found in the literature is covering the equity crowdfunding characteristics, highlighting the factors affecting the investors' intentions to invest in the entrepreneurs' projects (Alharbey & Van Hemmen, 2021).

After analyzing some of the nuances regarding the concept of informal investor, the following section will focus on analyzing the characteristics of the informal investor in Spain and the United States and subsequently identify the existing differences.

Materials and Methods

The purpose of this work is to analyze the factors that characterize the “informal investor” in Spain and the United States, analyzing different variables (social, economic, perceptual, etc.) for the period 2001-2015. The most relevant information related to entrepreneurship is englobed in the Global Entrepreneurship Monitor (GEM) database. Therefore, the data from the mentioned source will be used covering the different periods:

- Period 1:** Pre-crisis (2001-2006), analyzing 70,686 records for Spain and 25,360 for the United States.
- Period 2:** Crisis (2007-2010), analyzing 79,813 records for Spain and 26,464 for the United States.
- Period 3:** Final period of the crisis (2011-2015), analyzing a total of 67,017 records for Spain and 19,483 for the United States.

Those periods have been identified with the purpose of identifying the differences between the different economic situations for the countries in the scope. Period 3 is limited to the year in which the data is available (until 2015) as it is the last year with individual-level data for Spain and United States when this work was carried out.

Table 2 shows the variables that are relevant and form the basis of the study.

Table 2. Variables relevant and basis of the study

Variable	Description	Source
gender	Gender. This variable will be filtered to match the female gender (value 1).	GEM Database
age	Age of the respondent	GEM Database
hhsiz	Number of members in household	GEM Database
gemeduc	Education level: 1 if secondary or higher education	GEM Database
gemhhinc	Respondent income. 1 if it is in the highest 33rd percentile	GEM Database
gemwork	Work status. 1 if the respondent is employed full time	GEM Database
suskil	1 if the respondent has confidence in his/her entrepreneurial skill	GEM Database
knowent	1 if the respondent personally knows someone who started a firm in the past two years	GEM Database
ownmge	1 if the respondent has managed a company	GEM Database
busang	1 if the respondent has personally acted as a business angel in the past 3 years	GEM Database

The general model is defined as:

$$\text{Informal investment} = \alpha + \beta_1 \text{gender} + \beta_2 \text{age} + \beta_3 \text{age}^2 + \beta_4 \text{hhsiz} + \beta_5 \text{gemwork} + \beta_6 \text{gemeduc} + \beta_7 \text{gemhhinc} + \beta_8 \text{ownmge} + \beta_9 \text{suskill} + \beta_{10} \text{knowent} + \varepsilon$$

The dependent variable analyzed will be *busang* that identifies the propensity for informal investment.

The analysis uses a logistic regression model with which it will be analyzed which factors of the proposed ones affect the probability of making the decision to invest as an informal investor and to what extent each variable does.

The main hypotheses formulated, regardless of the economic situation, are the following:

1. Being a woman negatively influences the decision to act as an informal investor.
2. Having a high age negatively influences the decision to act as an informal investor.
3. The greater the number of members in the household, the lower the probability of acting as an informal investor.
4. Being employed full time positively influences to invest in other companies.
5. Having higher education increases the possibility of acting as an informal investor.
6. Individuals with a high salary are more likely to act as investors in outside ventures.
7. Having management experience increases the probability of acting as an informal investor.
8. Individuals with confidence in their skills are more likely to act as informal investors.
9. Knowing other entrepreneurs or having the necessary skills to undertake makes it easier to act as an investor in outside ventures.

To test those hypothesis the model utilized was a logistic regression and it was developed with an open-source software (Anaconda and executed in Python programming language).

RESULTS AND DISCUSSION

The model used analyzes the effect of the different variables analyzed in general informal investment in Spain and the United States during periods with different economic conditions, during the years 2001-2015.

The results of the logit model for the different periods analyzed are given in the following tables 3 and 4 for Spain and United States respectively.

Table 3. Result of the logit model for the different periods analyzed for Spain

Variables	Period 1		Period 2		Period 3	
	Coef.	P > z	Coef.	P > z	Coef.	P > z
Gemwork	0.1914	0.0001	0.0776	0.1232	0.2753	0.0000
Gemhhinc	0.2923	0.0000	0.2983	0.0000	0.3960	0.0000
Uneduc	0.1122	0.0174	0.0542	0.2418	0.2148	0.0000
Suskill	0.5508	0.0000	0.6576	0.0000	0.5478	0.0000
Knowent	0.9382	0.0000	1.0978	0.0000	1.1154	0.0000

Table 3 continued on next page

Table 3 continued

Variables	Period 1		Period 2		Period 3	
	Coef.	P > z	Coef.	P > z	Coef.	P > z
Oownmge	0.5954	0.0000	0.6510	0.0000	0.0118	0.8422
Gender	-0.3440	0.0000	-0.1510	0.0004	-0.0167	0.6903
Age	-0.2207	0.0000	-0.2036	0.0000	-0.2417	0.0000
age^2	0.0025	0.0000	0.0024	0.0000	0.0030	0.0000
Hhsize	N/A	N/A	-0.1909	0.0000	-0.0414	0.0131

Table 4. Result of the logit model for the different periods analyzed for United States

Variables	Period 1		Period 2		Period 3	
	Coef.	P > z	Coef.	P > z	Coef.	P > z
Gemwork	-0.4585	0.0000	-0.0691	0.2771	-0.2271	0.0026
Gemhhinc	0.4783	0.0000	0.2260	0.0001	0.5398	0.0000
uneduc	-0.7932	0.0000	-0.2700	0.0000	-0.7556	0.0000
suskill	0.2626	0.0002	0.6451	0.0000	0.1183	0.0905
knowent	1.2806	0.0000	1.4564	0.0000	1.0651	0.0000
ownmge	1.0159	0.0000	0.5877	0.0000	0.4262	0.0000
gender	-0.7743	0.0000	-0.5473	0.0000	-0.6664	0.0000
age	-0.1206	0.0000	-0.0805	0.0000	-0.0998	0.0000
age^2	0.0011	0.0000	0.0007	0.0000	0.0009	0.0000
hhsiz	N/A	N/A	-0.6452	0.0000	-0.1088	0.0000

Analyzing the results, first, it is important to conclude that for both countries for the analyzed periods, age (*age* variable) has a negative and significant influence while squared age (variable age^2) is a significant and positively influenced variable, which implies that at an older age, the lower the possibility of acting as an informal investor, regardless of the economic situation of the country, confirming hypothesis 2. This fact occurs until a certain age of the individual, for this purpose, the variable age^2 was created in order to analyze the influence of the decision to become an informal investor, intuiting that the relationship is not linear, but rather quadratic, that is, the relationship that has been found is decreasing but at increasing rates. In both countries, age behaves like a parable regarding the decision to become an informal investor, that is, at a higher age, less likely to become an investor, until reaching a maximum limit, where the relationship is no longer direct, and it becomes

inversely proportional. This fact could be explained under different premises such as the decision to take a different work path, having the basic needs covered and wanting to invest in new technologies or the need to get involved in projects for personal hobby ... etc. It is worth noting that the coefficient of the analyzed variable is much higher in Spain. Likewise, said variable takes values lower than 0.13, in absolute value, for the periods analyzed, being, therefore, its influence less than that of other variables used in the model. It is therefore concluded that age is a more important variable in Spain than in the United States when deciding to act as an informal investor.

Analyzing the effect of the variable related with the gender in the decision to act as an informal investor in Spain, being a woman (*gender* variable takes value 1), negatively influences the decision to act as an informal investor, in periods 1 and 2. However, said variable does not It is significant in the period 3 analyzed, qualifying the hypothesis 1 raised. On the other hand, being a woman in the United States also negatively influences the decision to act as an informal investor, regardless of the economic situation. In both countries, this variable is more important in the period before the crisis, that is, in period 1.

The size of the household (*hhsz* variable), for the periods for which information is available (period 2: 2006-2010 and period 3: 2011-2015) and in both countries, is significant and its influence is negative, which means that the larger the household size, the lower the possibility that the respondent will make the decision to invest in entrepreneurial activities in the countries analyzed, regardless of the economic situation of the country, confirming hypothesis 3. In addition, for both countries, it is observed that the coefficient, in absolute value, is higher in period 2, coinciding with the central period of the crisis, where it is logical that the number of household members is more important due to the instability financial situation and economic uncertainty.

Regarding the level of education (*uneduc* variable) differences are observed in both countries. In Spain, when the variable related to the level of education is significant (in the period of crisis it is not) the estimated value of the parameter is positive, which implies that the higher the level of education the greater the probability of being an informal investor This result qualifies the hypothesis 5 raised, highlighting that perhaps during the period of economic crisis investment activities were not influenced by the level of education that the potential investor of the technologies used had but of the budget available to invest. However, in the United States, the level of education (*uneduc* variable), it is concluded that for all periods analyzed; it is a significant variable, with a negative coefficient and with different importance depending on the period analyzed. This result shows that, in general, the higher the level of education, the lower the possibility of carrying out investment activities in the United States, rejecting hypothesis 5. In periods 1 and 3, it is where the variable corresponding to the level of education most negatively influences, with coefficients that take values -0.79 and -0.75, respectively.

The salary, represented with the *gemhhinc* variable, analyzes the effect of the respondent's salary on his decision to act as an informal investor. The *gemhhinc* variable takes the value 1, in case the respondent has a salary in the 33rd highest percentile. This variable is significant and with a positive effect regardless of the economic situation in the two countries analyzed, confirming hypothesis 6. Analyzing the coefficient of said variable in the different economic periods, it is observed that it is in period 3 when the salary variable has a major influence. This may be because after a period of crisis, potential investors with a medium salary prefer to invest in other lower risk options or that do not have the necessary amount to invest in entrepreneurship activities in Spain or the United States.

The employment status, represented with the *gemwork* variable influences differently depending on the economic period analyzed, and the country. In Spain, in period 1 and 3, the mentioned variable is significant and with a positive coefficient, while for period 2, the main years of the economic crisis, the referred variable is not significant, qualifying hypothesis 4. This could be because of the high level of unemployment that our country accused during the years analyzed in period 2, the employment status was not a variable to consider when deciding to act as an investor. In the United

States, it happens that in periods 1 and 3, the analyzed variable is significant and with a negative coefficient, and for period 2 it is not significant, rejecting hypothesis 4.

For the 3 periods analyzed and for both countries, knowing other entrepreneurs personally (*knowent* variable) is a significant and positive influence variable in the 3 periods analyzed, confirming hypothesis 9. In addition, this variable is the most important explanatory factor in the 3 periods. This fact has already been confirmed in other analyzes carried out with data from Finland (Maula et al, 2005) or with a sample of data from multiple countries of the year 2001 (Wong et al, 2005).

Likewise, in Spain trust (*suskill*) is a significant and positive variable regardless of the economic situation of the country, confirming hypothesis 8, while in the United States, it is a positive variable, but it is only significant in periods 1 and 2, clarifying hypothesis 8.

Finally, the fact of having managed a company, represented in the model with the *ownmge* variable has different results in Spain and the United States. In Spain, it is a significant variable in period 1 and 2 in addition to having a positive coefficient, while in period 3 it is a non-significant variable. This result qualifies hypothesis 7. This may be because after the crisis period, the factors that influence the decision to act as an informal investor in entrepreneurial activities change considerably. In addition, for the period 1 and 2, the analyzed variable is one of the most important explanatory factors of the analyzed model, emphasizing the importance of management experience in making investment decisions. On the other hand, in the United States, this variable is significant in the 3 periods analyzed, in addition to having a positive coefficient, confirming hypothesis 7.

In the analysis, the comparison is of the factors that influence the decision to become an informal investor in both Spain and the United States and according to the model analyzed, it is evident that the variables that have a negative influence on Spain, regardless of the period analyzed, are age (*age*), gender (*gender*) and household size, while in the United States, In addition to those mentioned, the variables related to education (*uneduc*) and work status (*gemwork*) negatively influence.

The variables that positively influence Spain are the employment status (*gemwork*), salary level (*gemhhinc*), educational level (*uneduc*), trust (*suskill*), meet the entrepreneur personally (*knowent*) and have managed a company (*ownmge*).

The variables that present the highest coefficients in the analyzed model are, for period 1 and 2, knowing the entrepreneur personally (*knowent*) and having managed a company (*ownmge*). In period 3, since the *ownmge* variable is not significant, the variables that have the highest coefficients know the entrepreneur personally (*ownmge*) and trust (*suskill*).

The variables that positively influence in the United States the decision to become an informal investor are the salary level (*gemhhinc*), trust (*suskill*), personally know the entrepreneur (*knowent*) and have managed a company (*ownmge*). The variables that present the highest coefficients (in absolute value) in the model related to the United States are knowing the entrepreneur personally (*knowent*) and then depending on the period analyzed, the variables related to having managed a company (*ownmge*), the size of household (*hhsiz*) and educational level (*uneduc*), for periods 1, 2 and 3 respectively.

Implications for Entrepreneurs

Entrepreneurs needing long-term competency-rich owners should pursue the business angel category of investors. However, these firms should be aware that the more active the investors, the more likely it is that they wish to strongly influence the project as well. Obviously, there is a considerable but unrealized potential among Spanish informal investors, among the analytical investors in particular, given that one-half of them would have made additional investments if investment opportunities had been available as in USA. This investor category should be particularly interesting for projects in need of skilled ownership. Furthermore, it is clear that these informal investors operate primarily within the regions in which they work and live, which makes it possible for them to have some kind of direct operational involvement in the firms in which they invest. Entrepreneurs should also be aware that

this means that they will often have to deal with a number of investors, continuously updating them with information about the venture (Baporikar, 2018b).

FUTURE AREAS FOR RESEARCH

This study suggests that there is a need for a more complete and detailed picture of the informal investors, role of venture capital market and financial institutions. Researchers should carefully choose the kind of informal investors that they want to focus on, and try to avoid small, heterogeneous samples in quantitative surveys of informal investors. Furthermore, this study confirms that co-investing is a normal phenomenon (especially among the most competency rich investors). However, there is need to explore how counties which are high on entrepreneurial growth operate with respect to the different consortiums or associations, how they are formed and organized, nor do how they are managed as far as smoothening the investment process and the way they interact with, for example, venture capitalists and other financial institutions. Furthermore, there is a need for longitudinal studies of informal investors. It would be especially interesting, for example, to learn more about informal investors as they are accumulating wealth and experience. Therefore, studies investigating how an entrepreneur finds informal investors and how they interact with each other are needed. In addition, there is need for greater understanding on what competencies the entrepreneurial ventures expect from an informal investor, nor how these expectations correspond with the competencies that different groups of investors actually possess. Models and approaches as to how these competencies could be transferred to entrepreneurial ventures would also be essential.

CONCLUSION

To conclude, this study did a comparative analysis of factors influencing informal investors for Spain and United States from the GEM data. However, the limitations of the GEM dataset are a restriction for a more thorough operationalization of the concepts that have been theoretically postulated to shape the expectations and behaviors of informal investors. Further, the role of informal investors in the formation of new business ventures has been of increasing interest to researchers and policy makers since several studies identified that informal investments contribute to entrepreneurial activity at the national level as they promote youth entrepreneurship (Baporikar, 2014). However, the national context plays a significant role and influences heavily on how informal investing shapes up (Baporikar, 2018a). Hereto, the analysis reveals that there are differences existing between the factors that characterize an informal investor in different economic periods (pre-crisis, crisis, post-crisis), in two different entrepreneurial environments, such as Spain and United States. This will certainly aid to identify measures or actions that can be implemented by the national and local organisms to promote informal investment and entrepreneurship especially in these post pandemic times (Baporikar, 2021a), which is all the more essential and critical need of the hour.

REFERENCES

- Ajzen, I. (1988). *Attitudes, Personality and Behaviour*. Dorsey.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. doi:10.1016/0749-5978(91)90020-T
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control and the theory of planned behaviour. *Journal of Applied Social Psychology*, 32(4), 1–20. doi:10.1111/j.1559-1816.2002.tb00236.x
- Alharbey, M., & Van Hemmen, S. (2021). Investor Intention in Equity Crowdfunding. Does Trust Matter? *Journal of Risk and Financial Management*, 14(2), 53. doi:10.3390/jrfm14020053
- Aram, J. D. (1989). Attitudes and behaviors of informal investors toward early-stage investments, technology-based ventures and coinvestors. *Journal of Business Venturing*, 4(5), 333–347. doi:10.1016/0883-9026(89)90005-0
- Autio, E., Wong, P. K., & Reynolds, P. (2003). National factors influencing the prevalence of “high-potential” start-ups. *NUS Entrepreneurship Centre Working Paper*, 11.
- Avdeitchikova, S., Landström, H., & Mansson, N. (2008). What do we mean when we talk about business angels? some reflections and definitions and sampling. *Venture Capital*, 10(4), 371–394. doi:10.1080/13691060802351214
- Baporikar, N. (2014). Youth Entrepreneurship in Indian Scenario. *International Journal of Asian Business and Information Management*, 5(2), 74–84. doi:10.4018/ijabim.2014040106
- Baporikar, N. (2015). Framework for Social Change through Startups in India. *International Journal of Civic Engagement and Social Change*, 2(1), 30–42. doi:10.4018/IJCESC.2015010103
- Baporikar, N. (2016). Understanding Knowledge Management Spectrum for SMEs in Global Scenario. *International Journal of Social and Organizational Dynamics in IT*, 5(1), 1–15. doi:10.4018/IJSODIT.2016010101
- Baporikar, N. (2018a). *Knowledge Integration Strategies for Entrepreneurship and Sustainability*. IGI Global. doi:10.4018/978-1-5225-5115-7
- Baporikar, N. (2018b). Contemporary Perspectives on Women Entrepreneurship in India. In D. Chitakunye & A. Takhar (Eds.), *Examining the Role of Women Entrepreneurs in Emerging Economies* (pp. 186–211). IGI Global. doi:10.4018/978-1-5225-5112-6.ch009
- Baporikar, N. (2019). Challenges for Social Enterprises in Special Education. In N. Chiweshe & D. Ellis (Eds.), *Strategic Marketing for Social Enterprises in Developing Nations* (pp. 269–291). IGI Global, doi:10.4018/978-1-5225-7859-8.ch011
- Baporikar, N. (2020). Role and Room for Knowledge Management in Small and Medium Enterprises. In E. Idemudia (Ed.), *Handbook of Research on Social and Organizational Dynamics in the Digital Era* (pp. 115–134). IGI Global. doi:10.4018/978-1-5225-8933-4.ch006
- Baporikar, N. (2021a). *Handbook of Research on Sustaining SMEs and Entrepreneurial Innovation in the Post-COVID-19 Era*. IGI Global. doi:10.4018/978-1-7998-6632-9
- Baporikar, N. (2021b). Fintech Challenges and Outlook in India. In Y. A. Albastaki, A. Razzaque, & A. M. Sarea (Eds.), *Innovative Strategies for Implementing FinTech in Banking* (pp. 136–153). IGI Global. doi:10.4018/978-1-7998-3257-7.ch008
- Baporikar, N., & Akino, S. (2020). Financial Literacy Imperative for Success of Women Entrepreneurship. *International Journal of Innovation in the Digital Economy*, 11(3), 1–21. doi:10.4018/IJIDE.2020070101
- Baporikar, N., & Deshpande, M. V. (2020). Regional Development via Entrepreneur Multi-Perspective Approach. In J. Palma-Ruiz, J. Saiz-Álvarez, & Á. Herrero-Crespo (Eds.), *Handbook of Research on Smart Territories and Entrepreneurial Ecosystems for Social Innovation and Sustainable Growth* (pp. 234–253). IGI Global. doi:10.4018/978-1-7998-2097-0.ch013
- Benjamin, G. A., & Margullis, J. B. (2005). *Angel capital: How to raise early-stage private equity financing*. John Wiley & Sons.

- Bygrave, W., Hay, M., Ng, E., & Reynolds, P. (2002). A study of investing in 29 nations composing the global entrepreneurship monitor. *An International Journal of Entrepreneurial Finance*, 5(2), 101–116. doi:10.1080/1369106032000097021
- Coveney, P., & Moore, K. (1998). *Business Angels: Securing Start up Finance*. John Wiley.
- Cressy, R., & Olofsson, C. (1996). Financial conditions for SMEs in Sweden. In R. Cressy, B. Gandemo, & C. Olofsson (Eds.), *Financing SMEs - A Comparative Perspective*. NUTEK.
- Davidsson, P., Lindmark, L., & Olofsson, C. (1994). New firm formation and regional development in Sweden. *Regional Studies*, 28(4), 195–210. doi:10.1080/00343409412331348356
- Dzingirai, M., & Baporikar, N. (2021). Role of Microfinance for Entrepreneurial Success. *International Journal of E-Entrepreneurship and Innovation*, 11(1), 1–16. doi:10.4018/IJEEI.2021010101
- Evanson, D. R., & Beroff, A. (1998). *Heaven sent: Seeking an angel investor? Here's how to find a match made in heaven*. Entrepreneur.
- Fiet, J. (1991). Network reliance by venture capital firms and business angels: An empirical and theoretical test. In N. Churchill, W. Bygrave, J. Covin, D. Sexton, D. Slevin, K. Vesper, & W. Wetzel (Eds.), *Frontiers of Entrepreneurship Research*. Babson College.
- Freear, J., Sohl, J., & Wetzel, W. (1992). The investment attitudes, behaviour and characteristics of high net individuals. In N. Churchill, S. Birley, W. Bygrave, D. Muzyka, C. Wahlbin, & W. Wetzel (Eds.), *Frontiers of Entrepreneurship Research*. Babson College.
- Freear, J., Sohl, J., & Wetzel, W. Jr. (1994). Angels and non-angels: Are there differences? *Journal of Business Venturing*, 9(2), 109–123. doi:10.1016/0883-9026(94)90004-3
- Gaston, R. J. (1989). *Finding venture capital for your firm: A complete guide*. John Wiley & Sons.
- Harrison, R., & Mason, C. (Eds.). (1996). *Informal Venture Capital: Evaluating the Impact Business Introduction Service*. Prentice-Hall.
- Harrison, R. T., & Mason, C. M. (1992). International perspectives on the supply of informal venture capital. *Journal of Business Venturing*, 7(6), 459–475. doi:10.1016/0883-9026(92)90020-R
- Kaiser, M., & Berger, E. S. C. (2021). Trust in the investor relationship marketing of startups: A systematic literature review and research agenda. *Managerial Review*, 71(2), 491–517. doi:10.1007/s11301-020-00191-9
- Landstroem, H. (1992). The relationship between private investors and small firms: An agency theory approach. *Entrepreneurship and Regional Development*, 4(3), 199–223. doi:10.1080/08985629200000012
- Landström, H. (1993). Informal risk capital in Sweden and some international comparisons. *Journal of Business Venturing*, 8(6), 525–540. doi:10.1016/0883-9026(93)90037-6
- Lumme, A., Mason, C., & Suomi, M. (1996). The returns from informal venture capital investments: An exploratory study. *Journal of Entrepreneurial and Small Business Finance*, 5(2), 139–158.
- Lumme, A., Mason, C., & Suomi, M. (1998). *Informal Venture Capital: Investors, Investments and Policy in Finland*. Kluwer Academic. doi:10.1007/978-1-4757-2785-2
- Mason, C. (1996). Informal venture capital: Is policy running ahead of policy? *International Journal of Entrepreneurial Research*, 2, 4–14.
- Mason, C. and Harrison, R. (1995). Informal venture capital and the financing of small and medium-sized enterprises, *Small Enterprise Research- the Journal of SEAAANZ*, 1-2, 33-56.
- Mason, C. M. (2006). *The life cycle of entrepreneurial ventures*. Informal Sources of Venture Finance. doi:10.1007/978-0-387-32313-8_10
- Mason, C. M., & Harrison, R. T. (2000). *Informal venture capital and the financing of emerging growth businesses. The Blackwell handbook of entrepreneurship*. Blackwell.

- Maula, M., Autio, E., & Arenius, P. (2005). What drives micro-angel investments? An examination of the determinants of family and nonfamily investments. *Small Business Economics*, 25(5), 459–475. doi:10.1007/s11187-004-2278-4
- Reynolds, P., Hay, M., Bygrave, W., Camp, S., & Autio, E. (2003). *Global Entrepreneurship Monitor 2001 Executive Report*. Babson College, London Business School and Kauffman Foundation.
- Reynolds, P. D., Hay, M., Bygrave, W. D., Camp, S. M., & Autio, E. (2000). *Global Entrepreneurship Monitor, 2000 Executive Report*. Kaufman Foundation.
- Storey, D. (1994). *Understanding the Small Business Sector*. Routledge.
- Tashiro, Y. (1999). Business angels in Japan. *Venture Capital*, 1(3), 250–273. doi:10.1080/136910699295893
- Wetzel, W. E. (1983). Angels and informal risk capital. *Sloan Management Review*, 24(4), 23–24.
- Wong, P. K., & Ho, Y. P. (2007). Characteristics and determinants of informal investment in Singapore. *Venture Capital*, 9(1), 43–70. doi:10.1080/13691060600996772
- Wong, P. K., Ho, Y. P., & Autio, E. (2005). Determinants of angel investing propensity: Evidence from the global entrepreneurship monitor dataset. *Frontiers of Entrepreneurship Research*, 2(2).

María de las Mercedes Barrachina studied a BSc and MSc in Telecommunications Engineering and developed her master thesis in the German Aerospace Center in Germany. She also completed a BSc in Economics and she is completing now her PhD (Law and Economics Program in CEINDO). She has led different technological projects in many different countries such as Japan, United Arab Emirates, Russia, Peru, Switzerland or France. She also has a strong background working with Big Data and developing neural networks for predicting purposes. She has attended different courses related to Data Science, Machine Learning, Blockchain and Innovation in prestigious international schools (IE Business School (Spain), MIT (Boston, USA), Berkeley (San Francisco, USA)).

Neeta Baporikar is currently Professor/Director (Business Management) at Harold Pupkewitz Graduate School of Business (HP-GSB), Namibia University of Science and Technology, Namibia. Prior to this, she was Head-Scientific Research, with the Ministry of Higher Education CAS-Salalah, Sultanate of Oman, Professor (Strategic Management and Entrepreneurship) at IIT Pune and BITS India. With more than a decade of experience in the industry, consultancy, and training, she made a lateral switch to research and academics in 1995. Prof Baporikar holds D.Sc. (Management Studies) USA, Ph.D. in Management, SP Pune University, India with MBA (Distinction) and Law (Hons.) degrees. Apart from this, she is an external reviewer, Oman Academic Accreditation Authority, Accredited Management Teacher, Qualified Trainer, FDP from EDII, Doctoral Guide, and Board Member of Academic and Advisory Committee in accredited B-Schools. She has to her credit many conferred doctorates, is a member of the international and editorial advisory board, reviewer for Emerald, IGI, Inderscience, etc., with more than 300 scientific publications and 30 plus authored books in the area of entrepreneurship, strategy, management, and higher education.