



When intentions turn into action: pathways to successful firm performance

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Accepted: 5 November 2021 / Published online: 22 November 2021

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Abstract

Entrepreneurship brings wealth to nations and contributes to their economic growth. People can take many paths to become entrepreneurs. Some join the family business, whilst others are born entrepreneurs, letting their innate intuition lead them into firm creation. For many, though, being able to learn and acquire the right skills is critical for a successful career as an entrepreneur. Like other human capital factors, entrepreneurial skills can be acquired. In today's fast-changing society, it is of utmost importance for entrepreneurs not only to gain these skills but also to be surrounded by a supportive environment that will (1) guide them in the creation of their business idea and (2) help them succeed and keep their business alive. Taking the theory of planned behaviour (TPB) as an initial theoretical framework, this paper studies the pathways that lead newly established entrepreneurs to successful firm performance. In this paper, qualitative comparative analysis (QCA) is used to study a sample of 49 entrepreneurs who responded to an online survey. The results reveal different pathways leading to successful firm performance. This study fills a theoretical and empirical gap and makes a valuable contribution to the literature on entrepreneurial behaviour by exploring the combinations of factors that best explain entrepreneurs' success in achieving high firm performance. Examining the entrepreneurial process and the factors that guide entrepreneurs towards new firm success provides valuable insights that can help universities, policymakers and prospective entrepreneurs take better decisions.

Keywords Entrepreneurial intentions · Entrepreneurial behaviour · Entrepreneurial skills · TPB · QCA

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Introduction

Entrepreneurship has been widely studied in recent decades, and it has evolved to connect with other disciplines. Two prominent social psychologists, Fishbein and Ajzen, have proposed models that help predict human behaviours, with intentions and attitudes playing a key role in the formation of such predictions. Given the immense popularity of such models and the increasing recognition of the value of entrepreneurship, researchers in areas such as business and management are using these models to predict business start-up intentions and behaviours directed at firm creation. Uncovering some of the key factors that influence an individual's choice to start a business can bring insights that contribute to the development of an economy (Carter et al., 2003; Douglas & Shepherd, 2002). Fishbein and Ajzen (1974) extensively studied the relationship between intentions and behaviour, concluding that intentions are the strongest predictor of a given behaviour and are driven directly by attitudes, perceived norms and social reactions.

From a business perspective, this study explores the factors influencing entrepreneurial intentions. It builds on previous research that first analysed the factors that predict students' intentions to start a business and then studied the link between intentions and actions. This study takes a further step to ascertain whether (1) intentional factors actually serve as predictors of high firm performance and (2) entrepreneurial skills also serve as predictors of high firm performance.

Because intentions can arise whilst people are at university, this study explores the idea that the university environment can nurture entrepreneurial intentions (Gieure et al., 2019). Intentions can also emerge when students are skilful or have the knowledge to start and manage a business. Universities can provide students with such essential skills. We live in a globalised world, where 50% of all new businesses perish within the first five years (Driessen & Zwart, 2007). Providing entrepreneurs with essential skills will be a key asset for businesses operating in today's highly competitive markets (Gindin & Panitch, 2012). Thus, having entrepreneurial skills is a key driver of success in the creation and management of a business.

The aim of this research is to analyse how different factors contribute to entrepreneurs' successful performance in running a newly created firm. Firm performance refers to the level of success that entrepreneurs achieve through the strategies, efforts or activities they engage in over a certain period (Zehir & Balak, 2018). The concept of success can have many definitions, but in this study, it is defined as the growth of a firm started by an entrepreneur and/or competent knowledge of firm creation. This study explores the factors that contribute to achieving this form of success. Qualitative comparative analysis (QCA) is used to identify the causal recipes that lead to the outcome (successful firm performance). QCA relies on causal complexity, focusing on the possibility that different combinations of conditions can lead to an outcome (Ragin, 2008). In this study, six causal recipes are found to lead to successful firm performance. The questions addressed by this research are as follows: What combination of factors will lead entrepreneurs to ensure the successful performance of their firms? And what conditions exert the biggest influence on entrepreneurs' successful performance?

This study's contribution to the business and management literature is twofold. First, this study examines the simultaneous effect of intention and behaviour factors and entrepreneurial skill factors, as well as the combinations of these factors, that lead entrepreneurs to achieve successful performance with their newly created firms. Finding these combinations can provide entrepreneurs with the recipes to succeed in the process of firm creation (Gupta et al., 2013), as well as in the management of their firms (Agbim, 2013). Our findings not only provide entrepreneurs with recipes to succeed in running a business but also give entrepreneurs and the academic community a better understanding of entrepreneurs' personality traits. Based on our results, entrepreneurs are characterised in terms of different personality patterns. Interestingly, some personality traits are common amongst both born and made entrepreneurs. In addition, one personality trait can be found amongst most of the entrepreneurs in our study, namely motivation to be an entrepreneur.

Second, we explore two areas of research, namely business and social psychology, where intentions to become an entrepreneur are a powerful predictor of business creation (Meoli et al., 2020). We argue that entrepreneurial intentions drive entrepreneurs to take action, and together with the appropriate entrepreneurial skills, which an individual can acquire at university, these intentions can lead to successful firm performance. Intentions are therefore a strong predictor of business creation, but according to our results, it is insufficient to enable entrepreneurs to run a successful business. Entrepreneurs need training and knowledge in entrepreneurial skills to ensure that they can manage and run a business effectively. This finding is also a strong contribution to society, where entrepreneurs, through their knowledge and skills, create jobs, introduce new products or services to the market, and even address social issues such as climate change and poverty. In other words, entrepreneurs are key agents of social and economic change.

The remainder of this article has the following structure. We first discuss the theoretical background and present the fundamental premises supporting this research. Then, we present the data and method used for the empirical analysis of the propositions. Section 4 presents a model that posits relationships between the theoretical constructs. The results are also reported. Section 5 provides some concluding remarks. Finally, Sect. 6 presents the limitations and future research directions.

Theoretical underpinnings

Taking the theory of planned behaviour (TPB) as an initial theoretical framework, this paper studies how intentional and human capital factors can lead to successful firm performance. Understanding the role of the factors influencing young entrepreneurs' firm performance is the purpose of this review of the literature. This review helps us predict how entrepreneurs achieve successful firm performance. The review focuses on five factors. Some of these factors relate to skill acquisition, a human capital factor that various researchers (Becker, 2009; Spinelli & Adams, 2012; Unger et al., 2011) cite as potentially helping predict successful firm performance. The remaining factors are intention and behaviour factors, which have also been identified in prior studies (Frank et al., 2007; Kessler et al., 2012; Korunka et al.,

2010) as predictors of successful firm performance. These factors play a significant role in this research and are expected to shape the success of new entrepreneurs.

The entrepreneurial process: from intention to creation

In the last few decades, empirical studies of new firm creation have become more common, given the role of entrepreneurship as the most important driver of regional and economic growth (Acs & Armington, 2004; Audretsch et al., 2006). Governments and higher education institutions are increasingly working together to move towards establishing an entrepreneurial culture to create wealth (Beugelsdijk, 2010). The process of starting a new firm is regarded as a voluntary and intention-driven process (Liñán et al., 2013). Intentions often come from a person's willingness to bring change, find autonomy or seek financial independence, and they are considered the strongest predictor of entrepreneurial behaviour (Autio et al., 2001; Krueger et al., 2000).

A previous study by the authors of the current paper (Gieure et al., 2020) tested the relationship between intentions and behaviours towards firm creation. Their results showed that some antecedents of intentions, namely personal attitudes and subjective norms, are strong predictors of behaviours. In this study, we take a step forward in attempting to confirm whether these antecedents of intentions can predict the success of new firms created by entrepreneurs.

For this purpose, we use the theory of planned behaviour (TPB), a model that has been adopted and extensively used by social psychologists but that is also widely used in business and management, because it can help predict entrepreneurial behaviours. In particular, this paper studies personal attitudes (PA), which refer to an individual's positive or negative attitudes in making decisions about business creation. Personal attitudes are key determinants of entrepreneurial behaviour because the stronger the attitude about business creation is, the stronger the desire to engage in that behaviour will be (Ajzen, 1991). This paper also studies subjective norms (SN), which refer to perceived social pressure from peers and family, because of their importance to entrepreneurs. Subjective norms refer to what most people commonly do or approve of (Ajzen, 1991; Fenech et al., 2019). In this context, this study explores whether personal attitudes and subjective norms help entrepreneurs develop a stronger intention to create a firm and indirectly help them succeed in what they do because having strong intentions towards a behaviour might ultimately lead entrepreneurs to start and run their business successfully.

Becoming an entrepreneur starts with an idea and ends with running a business. Based on the literature and given the approach of this paper in analysing entrepreneurs who have already embarked on the creation of a new business, we consider both intention and behaviour to be strong predictors of entrepreneurs' successful firm creation. The intention to become an entrepreneur is commonly regarded as the major antecedent of entrepreneurial behaviour (Bird, 1988; Krueger et al., 2000). In this respect, this paper goes a step forward to find which patterns of personality traits that are shaped by intentions and behaviours serve as antecedents of successful firm performance.

Are entrepreneurial skills conducive to successful firm performance?

Becoming an entrepreneur can be challenging, and perhaps not everyone is ready for it. Entrepreneurship is often a career decision, not a first choice, because of all the risks it entails (Macko et al., 2009). Entrepreneurs are known for being risk-friendly, flexible, creative, innovative, autonomous and proactive with new ideas, to mention just a few of their traits (Baum et al., 2014; Fillion, 2021). According to Neneh (2011) many of these traits are necessary and even crucial for a business to survive. The question here is, how do entrepreneurs attain these traits?

The literature that explores entrepreneurs' personality traits differentiates between born and made entrepreneurs. Born entrepreneurs are said to be more creative and have a genetic predisposition towards leadership skills (Shane, 2010). However, there are other skills, such as knowing how to develop a product or service, that they need to learn (Chell, 2013). Entrepreneurial capabilities can be nurtured or fostered. Given the crucial role of entrepreneurs all around the world, entrepreneurial education, the backbone of the success of entrepreneurs (Elmuti et al., 2012), is vital for the development of the economy.

The direct relationship between entrepreneurial skills and successful firm performance has been studied academically (Barazandeh et al., 2015; Chell, 2013; Koryak et al., 2015; Theriou et al., 2014). Entrepreneurial skills are often “discounted, undervalued and are largely ignored, excepting when they are not executed” (Chell, 2013: 8). Nevertheless, they are fundamental for the success of an entrepreneur. Entrepreneurial skills account for the formal knowledge acquired to run a business, as well as the extracurricular studies and personal learning an individual undertakes to acquire those skills. Universities no longer focus solely on students' knowledge acquisition but also on preparing students for life and work, which requires imparting broader skillsets.

Skills that prepare people for work can range from a social perspective, where they learn teamwork skills (Tarricone & Luca, 2002), to a more professional perspective, where they learn soft skills (Dixon et al., 2010) or entrepreneurial skills. The latter group of skills is of utmost importance for entrepreneurs because having entrepreneurial skills (1) indirectly helps trigger entrepreneurial intentions (Gieure et al., 2019) and (2) can guide and help entrepreneurs succeed in their professional endeavours (Becker, 2009; Spinelli & Adams, 2012; Unger et al., 2011).

The university, together with its environment, is the outlet where students and prospective entrepreneurs can acquire the knowledge and the necessary skills to become entrepreneurs. More and more faculties around the world are teaching these professional skills, thus indirectly boosting the entrepreneurial intention and subsequent behaviour of the students that receive such an education. For students willing to start their own business, entrepreneurial skills are “necessary basic skills that allow individuals to start and develop a financially successful business” (Santos et al., 2018: 811). These skills include commitment, determination, leadership, opportunity recognition, risk propensity, creativity and internal motivation, which according to Spinelli and Adams (2012), are necessary for entrepreneurs to succeed in a globalised world.

Firms contribute to the economy by creating jobs and wealth. Their ultimate goal is success in the form of growth or strong financial performance. Growth is often seen as a key indicator of successful firm performance (Brush & Vanderwerf, 1992). Growth is interpreted in this study in terms of financial revenues (both public and private finance), as well as the acquisition of innovative capabilities in the form of new product or service development.

Sigala and Chalkiti (2007) included entrepreneurial skills and innovative capabilities in their analysis of firm performance because it provides a more complete view of the fundamental role of the accumulation of tacit and explicit knowledge. Innovative capabilities can be positively related to firm performance, when measured as return on assets (Sher & Yang, 2005).

Some academics (Bauer, 2011; Jusoh et al., 2011; Nehete et al., 2011) have claimed that business creation knowledge is a key determinant of success. The education and experience of an individual provide an entrepreneur with the fundamental skills to start a business (Barker & Mueller, 2002; Hadjimanolis, 2000). Hence, knowledge is a key asset for successful firm performance. According to Nonaka and Takeuchi (1995), knowledge is a source of sustainable competitive advantage and economic growth. In today's competitive and fast-changing economies, new firms need to find a competitive position. Such a position can be reached through the added value of knowledge (Omerzel & Antoncic, 2008).

Method

Data collection and sample

In an initial phase, the questionnaire items were pre-tested, providing three valid responses. Following this phase and using advice from a pool of four experts, some minor changes were made to the questionnaire before continuing with the interviews.

Data were obtained by directly contacting business owners or CEOs, who were sent an online questionnaire via email or through the professional social network LinkedIn. An online questionnaire was used because it is the preferred channel of most CEOs. The firms that participated in the study belonged to the Spanish start-up accelerators and incubators Lanzadera and Demium, which are based in Valencia. More than 300 questionnaires were sent. The process lasted from August to October 2020.

From the total number of responses received (55), the results were refined to include only cases where the questionnaire had been completed. Accordingly, this study considers 49 businesses operating in different sectors in Spain and abroad. The response rate was 18%, which according to Fiss (2011), is an acceptable rate for studies with small samples. The interviewees included new businesses and start-ups that were mostly younger than five years old. Three groups were defined based on the year of creation of the firm: nascent entrepreneurs (2018–2020), new firms (2016–2017) and established entrepreneurs (2009–2015). All entrepreneurs had higher education studies. This educational level was a requirement for inclusion in the study because the aim was to explore factors that predict firm success, including

entrepreneurial skills. As explained earlier, these skills can be a strong predictor of firm creation. Entrepreneurial skills are commonly acquired at university and/or from the university environment. More than half of the sample had postgraduate studies (57%), which can exert a strong influence on entrepreneurs' competent knowledge and skills. Hence, we argue here that university education is fundamental for entrepreneurs to succeed not only in becoming entrepreneurs but also in gaining social, personal and other professional skills.

The questionnaire had two main sections. The first part consisted of basic questions to characterise each firm and owner-entrepreneur. The second part contained specific questions concerning the areas of interest, including questions about the entrepreneurial activity of the owners, their entrepreneurial skills and entrepreneurial behaviour, and the performance of their firm. Table 1 summarises the essential characteristics of the entrepreneurs and their businesses.

To explain the outcome, we used five antecedent conditions grouped into three dimensions. The first dimension consisted of entrepreneurial intentions (EI) and entrepreneurial behaviour (EB). The second consisted of antecedents of intentions, namely personal attitudes (PA) and subjective norms (SN). The third consisted of entrepreneurial skills (SK).

Measures

Firm performance (P)

Firm performance was the outcome in this analysis. Firm performance was taken to refer to the level of success of entrepreneurs through the strategies, efforts or activities they engage in over a certain period (Zehir & Balak, 2018). Using this definition, the study examined the successful performance of new firms created by entrepreneurs. This form of measurement follows a similar approach to that of other studies of firm performance (Armanios et al., 2017; Azoulay & Shane, 2001; Bloom & Van Reenen, 2010; Davidsson & Honig, 2003; Delmar & Shane, 2003; Kulchina, 2017). This scale consisted of 10 items, which respondents used to evaluate the firm's performance in terms of market opportunity, new products or services,

Table 1 Descriptive statistics for the sample

Variables	Categories
Gender	75% Male
	25% Female
Legal form	1% Freelance
	99% Limited company
Year founded	55% 2018–2020
	30% 2016–2017
	14% 2009–2015
Educational background	42% Undergraduate
	57% Postgraduate

entrepreneurial knowledge, business management, experience, business viability, and public and private finance. Respondents indicated their degree of agreement or disagreement on a five-point Likert scale.

Entrepreneurial intentions (EI) and entrepreneurial behaviour (EB)

For entrepreneurial intentions towards firm creation, existing scales were used to measure intentions (EI), personal attitudes (PA) and subjective norms (SN; Liñán & Chen, 2009). For entrepreneurial behaviour (EB), the items proposed by Lortie and Castogiovanni (2015), McGee et al. (2009), and Rotefoss and Kolvereid (2005) were adopted.

Skills (SK)

Entrepreneurial skills were measured after conducting a review of the pertinent literature. In particular, a validated scale for measuring entrepreneurial skills and abilities developed by Liñán and Fernández-Serrano (2018) was used.

We expected to find different patterns for new entrepreneurs who had entrepreneurial education in the form of learning from formal education (courses, workshops, talks, etc.) or training from work experience.

Data analysis

The descriptive analysis of the sample shows that most of the entrepreneurs were men (75%). The reason for this trend is that becoming an entrepreneur is a risky endeavour, and men may be more risk-averse than women, who professionally speaking, prefer stability (De Vita et al., 2014; Shrivastava & Tamvada, 2011). Spanish labour policies have for years favoured public workers, and entrepreneurs have traditionally received little financial or legal help when starting a new firm. In recent years, Spanish regulations have shifted towards helping women find a place in the market as entrepreneurs. Another interesting characteristic of the sample is that more than half of the entrepreneurs were young (55%) and started a business within the last two years. All the entrepreneurs in the sample had higher education studies. Perhaps for this reason, most entrepreneurs reported that they preferred to establish a limited company to limit their financial responsibility. We excluded entrepreneurs without higher education studies because this study was concerned with investigating the role of entrepreneurial skills, which we argue are promoted by the university and its environment, as a predictor of entrepreneurs' success.

Moving to the statistical analysis, we first conducted factor analysis to group the items in the questionnaire into factors. To validate the grouping of the items, we first analysed the reliability of the instrument. We examined the internal consistency using Cronbach's alpha (Nunnally, 1967), and we reduced the scales with values of approximately 0.7. Composite reliability was then tested. It was measured using average variance extracted, abbreviated to AVE (Fornell & Larcker, 1981), and it indicates the degree to which measures within the same construct relate and

converge to each other. All the values were above 0.5, as suggested by Bagozzi (1981). To analyse convergent validity, we performed confirmatory factor analysis, observing a good fit. Table 2 shows the items that were used to operationalise each construct (condition).

We were interested in exploring different patterns that lead to successful firm performance. For this purpose, we used qualitative comparative analysis (QCA). According to Woodside (2016), this technique overcomes some of the drawbacks of traditional methods because it can identify which combinations of antecedent conditions lead to a specific outcome by using complex causality and focusing on asymmetric relationships. Because QCA entails equifinality, multiple paths (different starting points) may lead to the same outcome. Using equifinality in this study allowed us to characterise the different entrepreneurial profiles. This characteristic is particularly interesting because it is in sharp contrast to the perspective adopted by many statistical techniques. For instance, in linear regression models, there is only one way to produce the outcome, namely the one described in the additive regression equation. By contrast, a solution in QCA reveals which different paths offer alternatives to achieve an outcome. Lastly, QCA is particularly attractive for studies with small samples. Although QCA has been extensively used with large samples, studies have shown the validity of this approach when using data sets with fewer than 50 cases (Fiss, 2007, 2011). Hence, this technique enables empirical analysis of a small sample that cannot be analysed with regression analysis. The results display several pathways that lead entrepreneurs to the successful performance of their firms. The analysis was performed using fsQCA software version 3.0.

Five antecedent conditions were considered to describe entrepreneurs' successful firm performance. All conditions were transformed into fuzzy sets. When calibrating Likert scales, Ragin and Davey (2014) recommend using three qualitative anchors to represent (i) full membership (0.95), (ii) the cross-over point (0.5 or ambiguous membership) and (iii) full non-membership (0.05). We used a five-point Likert scale to collect the data, so we established cut-off points with the values of the 10th and 90th percentiles (to denote full non-membership and full membership, respectively). The percentiles enabled calibration of any measure, regardless of its original values. The membership value for 5 (full membership) was 0.95, the value for 4 (cross-over point) was 0.51 and the value for 1 (non-full membership) was 0.05 (Fiss, 2007; Ragin, 2000). The other values, (i.e. 2 and 3) were calibrated on the basis of a linear transformation function. The crossover point (0.5), which is the point of maximum ambiguity, was defined using the median. Table 3 shows the values used to transform the variables into fuzzy-set conditions. FsQCA was then applied to these conditions to identify the causal relationships between them and the outcome.

Before proceeding with the analysis, we checked whether any of the antecedent conditions was necessary to explain either the presence or the absence of the outcome. Following the approach of Schneider and Wagemann (2010), a condition is necessary when its consistency score exceeds the threshold value of 0.9. Table 4 reveals that all values were below the cut-off value of 0.9, indicating no necessary conditions in the analysis.

In the next step, the truth table was constructed. Then, the number of rows was reduced using Boolean algebra. In this process, the Quine–McCluskey algorithm

Table 2 Items used to operationalise the constructs

Condition	Item	Description
<i>Personal attitude</i>	PA 2	Being an entrepreneur gives me great satisfaction
	PA 3	Being an entrepreneur has more advantages than disadvantages for me
<i>Subjective norms</i>	SN 3	My colleagues approve of my decision to start a business
	EI 4	My professional goal is to be an entrepreneur
<i>Entrepreneurial intention</i>	EB 3	I am capable of starting a new business
	EB 5	I have invested in a business
<i>Entrepreneurial behaviour</i>	SK 2	I have creativity for business
	SK 3	I have some abilities for problem-solving
	SK 8	Creating my own business is a form of personal self-fulfilment for me to fulfil my dreams
	SK 9	I have a strong entrepreneurial spirit
<i>Performance</i>	P 2	I have developed a new product or service
	P 3	I have the knowledge to start my own business

Table 3 Calibration of the outcome and the antecedent conditions

	<i>Membership threshold values</i>					
	SN	EI	PA	EB	SK	P
<i>Full membership</i>	5.00	5.00	0.93	1.00	1.28	1.28
<i>Crossover point</i>	3.10	3.10	0.34	-0.17	0.06	0.26
<i>Full non-membership</i>	1.00	1.00	-1.40	-1.43	-1.04	-0.77

(Quine, 1952) computed the commonalities amongst the configurations that lead to the outcome. It returned the minimum set of combinations of causal conditions sufficient for the outcome. The reduction was based on the empirical relevance of the solution (coverage) and the extent to which cases sharing similar conditions lead to the same outcome (consistency). The solution coverage in this analysis was 0.7036, and the solution consistency was 0.8274. Raw coverage ranged from 0.17 to 0.46. All these indices indicate good fit.

Results and discussion

The results of the QCA reveal six combinations of causal conditions that explain the outcome (namely firm performance). Table 5 shows the results that confirm our preliminary observations. Following the recommendations of Ragin (2008), we report the intermediate solution. Although this solution is reached considering some of the conditions that are absent, it still leads to a successful outcome. The results indicate no unique recipe for successful firm performance. Specifically, entrepreneurs can take six pathways to successful performance in their early years of activity.

Closer reading of the table shows that personal attitude towards becoming an entrepreneur is present in half of the configurations (Configurations 1, 2 and 3). Similarly, four configurations (Configurations 1, 2, 3 and 6) include entrepreneurial skills. Configuration 4 reflects entrepreneurs who perhaps did not receive an entrepreneurial education or did not gain those skills at university but have other skills or capabilities such as innovation or technical skills that led them to start their own

Table 4 Analysis of necessary conditions

Antecedent condition	Consistency	Coverage
Personal attitudes (PA)	0.642985	0.759275
~ Personal attitudes	0.503035	0.557358
Subjective norms (SN)	0.317030	0.826047
~ Subjective norms	0.852910	0.624575
Entrepreneurial intentions (I)	0.712603	0.817698
~ Entrepreneurial intentions	0.861121	0.574286
Entrepreneurial behaviour (EB)	0.625491	0.849249
~ Entrepreneurial behaviour	0.534809	0.528023
Skills (SK)	0.711175	0.807131
~ Skills	0.483399	0.556744

The symbol (~) represents the absence of the condition

Table 5 Sufficient configurations of antecedent conditions for firm performance

Configuration no	Antecedent conditions					Coverage		Consistency
	Personal attitudes	Subjective norms	Entrepreneurial intentions	Entrepreneurial behaviour	Entrepreneurial skills	Raw	Unique	
1	•	⊗			•	0.4623	0.0596	0.9236
2	•		•		•	0.2827	0.0096	0.9187
3	•			•	•	0.3984	0.0303	0.9162
4	⊗	•	⊗		⊗	0.1735	0.0449	0.7928
5	⊗	⊗	⊗	•		0.3195	0.1174	0.8523
6		⊗	•	⊗	•	0.1960	0.0003	0.8293

Solution coverage = 0.7036; solution consistency = 0.8274
Frequency threshold = 1; consistency threshold = 0.8262

business. Those decisions may have been driven by social pressure from friends or family. Entrepreneurial skills, a core factor in this study, is present in four of the configurations. This result suggests that having entrepreneurial skills enhances the intention to start a business (Configuration 2) and business creation itself (Configuration 3), as well as helping entrepreneurs run their business successfully.

Configuration 1 shows that entrepreneurs need personal attitudes as well as entrepreneurial skills to perform successfully in both the creation and the management of their business. The social pressure of family and friends is unimportant when entrepreneurs have these two factors. Based on the analysis of necessity, both personal attitudes and entrepreneurial skills are key drivers of successful firm performance. The literature suggests that personal attitude is a key driver within the process of starting a new firm because it highlights a strong desire to engage in a certain behaviour (Ajzen, 1991), bringing great satisfaction to those who run a business. However, this study again confirms that entrepreneurial skills are important for entrepreneurs to succeed, first in the process of starting a new firm, and then in the solid management and development of the business. Having or acquiring valuable tacit and explicit knowledge will guide prospective entrepreneurs throughout the process of creating and managing a firm. Also, innovative capabilities are essential to create and develop new products or services that will help entrepreneurs survive in difficult times. This group of entrepreneurs can be categorised as nascent entrepreneurs (Configuration 1). Our results also show that entrepreneurial skills cannot lead to the outcome on their own. The presence of personal attitudes (Configurations 1, 2 and 3), intentions (Configurations 2 and 6) and behaviour (Configuration 3) is also required for entrepreneurs to succeed. In other words, having an intention towards business creation and taking the steps to start a business thanks to the knowledge gained at university and from the university environment can help entrepreneurs run their business successfully.

According to Configurations 2 and 3, intentions and behaviour towards firm creation, when combined with personal attitudes and entrepreneurial skills, lead to entrepreneurial success. Configuration 2 shows the cases where entrepreneurs have the goal of firm creation, which they consider a positive endeavour, and they have the entrepreneurial skills necessary to perform well in their first few years of

professional activity. Similarly, Configuration 3 shows cases where entrepreneurs have a goal of firm creation, have invested in a new business or are capable of starting a new firm, and have the entrepreneurial skills to perform well in the first few years of professional activity. Combining these attributes leads to successful performance in the first few years of professional activity.

This analysis, particularly in reference to Configuration 2, reveals a clear pattern for born entrepreneurs, who combine determination and positive attitudes towards being entrepreneurs and have entrepreneurial skills. These results show that those who have entrepreneurial spirit will be driven to fulfil their dream of becoming an entrepreneur because it brings great satisfaction. Also, when satisfaction towards becoming an entrepreneur is high, the advantages can outweigh the disadvantages, no matter what the obstacles are. When combined with the right skills or knowledge for starting a firm, this attitude helps entrepreneurs succeed in their professional activity. We must be careful not to overgeneralise, given that many external and internal factors can determine an entrepreneur's success. However, born entrepreneurs' motivation plays a key role because it pushes these individuals to pursue their career path successfully. A number of studies (Estay et al., 2013; Locke & Baum, 2014; Malebana, 2014; Shane, 2003) have shown the positive link between having entrepreneurial motivation and moving into action. Others, such as those by Robinson (1987) and Fisher and Koch (2008), suggest that certain entrepreneurial attitudes may be attributes of born entrepreneurs. An attitude that characterises born entrepreneurs is motivation to become an entrepreneur for reasons such as personal fulfilment. This attitude, when combined with certain capabilities or abilities such as creativity or problem-solving, can enhance entrepreneurial success. According to Matthews et al. (2011), personal fulfilment is highly correlated with successful entrepreneurs. This study showed that entrepreneurs have a clear pattern of entrepreneurial motivation. This personality trait is thus a cornerstone for the prediction of firm creation and the success of entrepreneurs.

Configuration 4 shows a different solution, consisting of only the presence of subjective norms and the absence of personal attitudes, entrepreneurial intentions and skills. The logic behind this pattern is that these entrepreneurs are unconventional because they exclusively need the approval of their peers to start a business. The status of being an entrepreneur is perhaps the reason why they wanted to have a business, despite lacking entrepreneurial skills. Also, the absence of entrepreneurial intentions indicates that the entrepreneurs started a business out of necessity. The absence of the goal of becoming an entrepreneur denotes that they were pushed for other reasons, which may include recognition, financial independence or work.

In contrast, Configurations 5 and 6 include the absence of subjective norms. This finding implies that this causal condition has a weak relationship with the outcome. This relationship denotes that some entrepreneurs do not deem having the approval of peers or colleagues important for them to become entrepreneurs. In this group, entrepreneurs find themselves capable of running their business no matter what others think (Configuration 5), having perhaps taken the decision as a necessity, because they needed a job. For other entrepreneurs (Configuration 6), despite not having invested in a new business before, entrepreneurial skills can help them develop a clear goal of firm creation.

Conclusions

We conducted QCA to analyse how several causal conditions contribute to entrepreneurs' success in terms of the performance of their newly created firms. Our results show that one size does not fit all (Rideout & Gray, 2013). There is no one recipe for entrepreneurs to achieve successful performance. QCA is an analytical technique that enables in-depth analysis, so we now understand better why entrepreneurs succeed in their first years of business activity. After analysing the cases in more detail, we can also observe which types of entrepreneurs make up the sample.

This is a third-phase study that was conducted to confirm our previous results. In this study, we explored (1) the role of personal attitudes and subjective norms as predictors of intentions and behaviours and (2) the role of entrepreneurial skills in helping entrepreneurs succeed in their business activity. Our results confirm our previous findings (Gieure et al., 2020), which suggest that subjective norms and entrepreneurial skills are strong predictors of intentions. Despite being a poor predictor of intentions when analysed alone, personal attitudes can have a bigger influence when combined with skills.

The general conclusion of this third study is that entrepreneurs' successful firm performance can be achieved in different ways, where personal attitudes and entrepreneurial skills play a major role. In fact, our analysis reveals a common pattern of personality amongst entrepreneurs: either born or made entrepreneurs. Born entrepreneurs are those with entrepreneurial spirit, who apart from having a great motivation to have their own business, become entrepreneurs for personal fulfilment, whilst also showing creativity for business. Made entrepreneurs may also have entrepreneurial spirit (Kuratko, 2011) because they have been trained for entrepreneurship, and they have developed skills at university, such as problem-solving or knowledge of firm creation, leading them to start their own business.

This conclusion also confirms our previous assumption about the role of university and its environment in potentially helping students become entrepreneurs. An interesting finding is that all the entrepreneurs who we analysed had higher education studies. In particular, a large number of them had completed postgraduate education, which meant that they had somewhat of a chance to undertake entrepreneurship education or had an environment that helped them achieve their goal. The university is a key agent in the development of the entrepreneurial mindset. In this study, all entrepreneurs had a university education, and many showed that they had entrepreneurial skills. In correlation with our previous studies, this finding confirms that entrepreneurial skills, which can be learnt or acquired at university and from the university environment, exert a strong influence on people's professional careers because an individual's knowledge and skills are essential to develop a successful career path.

This study makes a valuable contribution to the literature on the entrepreneurial process. First, the study shows a clear pattern of personality traits, leading to a distinction between born entrepreneurs and made entrepreneurs. Our initial view was that the university environment can nurture entrepreneurial intentions (Fayolle & Gailly, 2015; Sahban et al., 2016), implying that entrepreneurs can be made (Looi &

Khoo-Lattimore, 2015). Although this view proved consistent, the results also show that born entrepreneurs have greater motivational readiness for firm creation. Running their own business brings them great satisfaction, which helps them overcome any problems that may arise and drives them to run their business successfully. Moreover, entrepreneurial skills can be acquired at university (Hahn et al., 2020). These skills can indirectly lead to the formation of intentions and can directly help entrepreneurs run their business. Entrepreneurs need training and knowledge to run their business successfully (Jusoh et al., 2011). Finally, we also analysed entrepreneurs' intentions and behaviour towards firm creation, finding that a goal of firm creation is insufficient on its own but is part of the combination of factors that can place entrepreneurs on a successful career path. The overall conclusion is that these recipes show prospective entrepreneurs the keys to building a successful business.

Second, the study also addresses the role of entrepreneurial skills as a predictor of firm success. We empirically analysed this relationship and found that entrepreneurial skills are strong predictors of successful firm performance (Al Mamun et al., 2019). Entrepreneurial skills were observed to have a prominent presence in the analysis. When combined with the entrepreneur's positive attitude towards entrepreneurship and the strong desire to succeed, entrepreneurial skills can predict an entrepreneur's successful career. Entrepreneurial skills indirectly trigger intentions to become entrepreneur. Being prepared to face the highly competitive markets of the global economy is crucial for entrepreneurs to survive in a globalised world. Now more than ever, universities have a major responsibility in providing students with such skills.

Limitations and future research directions

This study is the third phase of a larger study into entrepreneurship. Despite covering a gap in the literature, this study has several limitations, which represent opportunities for future research. First, the analysis should be reconsidered by including more items to operationalise each construct. We used QCA to identify pathways that can shed light on the research question. Second, the analysis should further examine particular cases to give us a better understanding of how entrepreneurs succeed in their first few years of activity.

Third, although this study used a sample of 49 cases, which was considered sufficient for empirical validation of the research, a larger sample would perhaps offer additional insights into the entrepreneurial process. Fourth, the study used scales that have been tested before. However, there is still a question of whether some other factors might offer better proxies of the outcome. It is difficult to find better proxies to examine the success of nascent entrepreneurs. Finally, future studies should also consider longitudinal analyses. Entrepreneurship is rapidly changing, as is society. Examining the evolution of these entrepreneurs and the human capital factors that guide them towards firm creation and firm success could provide valuable insights that can help universities, policymakers and prospective entrepreneurs take better decisions.

Author contribution The authors have followed the journal's mandatory submission guidelines.

Funding Not applicable.

Availability of data and material Data collected from entrepreneurs are available.

Code availability Not applicable.

Declarations

Conflicts of interest Not applicable.

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