



PROGRAMA DE DOCTORADO
CIENCIAS ECONÓMICAS, EMPRESARIALES Y SOCIALES
(RD. 99/2011)

FACULTAD DE CIENCIAS ECONÓMICAS Y EMPRESARIALES

TESIS DOCTORAL

Personal Values and Entrepreneurial Intentions: the
Role of Collectivistic Values

Presentada por:
Juan Alberto Hueso Arrabal

Dirigida por:
Dr. D. Francisco Liñán Alcalde
y
Dra. Dña. Inmaculada Jaén Figueroa

Departamento de Economía Aplicada I

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Universidad de Sevilla
Sevilla, noviembre de 2020



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Acknowledgements

It is well recognised that the doctoral stage is a really lonely step in every PhD student, who spends very little time with family and relatives. Furthermore, many doctoral students complain of how short the contact hours with supervisors are, especially when compared with the long days of solitary work. Last but not least, it is well known that it is a stage where you spend such a long time with yourself. Definitely, it is an individualistic step spread over a long period of time.

In my case, the completion of this doctoral thesis has involved a very considerable effort for the one who writes, and it is certain that I would not have been able to finish it without the large amount of support received. In this vein, I would like to have a special mention and I will be eternally grateful to my supervisor and co-director. Dr. Paco Liñán and Dr. Inma Jaén are supporting me since the very beginning of the doctoral stage. Whenever I needed any help and motivation, they were there helping and supporting me. I owe them the value of perseverance and persistence. I saw in them the value of our work. They taught me how to face this job and to put myself in value. They trusted me and remained there until the end. Thanks for supporting and encouraging me. Without their support I could never have reached this step in my life and so, to write this section of the dissertation.

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Torredonjimeno, October 2020.

Abstract

This doctoral dissertation bases its analysis in the conviction that personal values (PV) relevantly affect the individuals' entrepreneurial intentions (EIs). The personal value structure act as a powerful antecedent in the formation of EIs. To test this relationship, this dissertation first carries out a systematic literature review (SLR) where most valuable previous insights are recollected and an integrative conceptual framework is presented. This SLR has found that, in particular, the Basic Human Value theory proposed by Schwartz in 1992 and the Theory of Planned Behaviour developed by Ajzen in 1991 are the most relevant frameworks used to analyse this relationship between PV and EIs. In the same vein, the SLR identifies this research topic as a novel field of study since most of the relevant contributions have been published since 2011, half of which appeared from 2017.

On the other hand, an empirical study is carried out to test this relationship. In this regard, this dissertation proposes an analysis of the role of the collectivistic PVs in the formation of EIs. Accordingly, a cross-country study was conducted on a sample of individuals from two different regions, Hampshire in the United Kingdom, and Catalonia in Spain. The Values and Entrepreneurial Intention (VIE) questionnaire was used to measure this value-intention relationship. As a result, we find PVs to exert an indirect and negative effect on the entrepreneurial intention through both personal attitude and perceived behavioural control. Nevertheless, we also find an indirect positive effect through subjective norms. These results are consistent in both countries.

This dissertation highlights that not only individualistic values are needed to exert an influence on the formation of entrepreneurial intentions, but also, those of a more collectivistic nature. These latter values also explain the formation of entrepreneurial intention. However, we find that very few studies have so far focused their analysis on these collectivistic values.

Finally, this dissertation proposes some relevant conclusions and implications. Consequently, the research includes a future research agenda and opportunities to further explain the relationship of PV and EIs.

Keywords: personal values; entrepreneurial intention; entrepreneurship; collectivistic values; personal attitude; subjective norms; perceived behavioural control

Resumen

Esta tesis doctoral comienza su análisis desde la convicción de que los valores personales (VP) afectan de manera relevante en las intenciones emprendedoras (IEs) de los individuos. La estructura de valores personales funciona como un antecesor muy importante en la formación de conductas emprendedoras. Para analizar dicha relación, esta tesis primero lleva a cabo una revisión sistemática de literatura (RSL). En ella se recogen las perspectivas más importantes encontradas y también un marco conceptual integrativo. Esta RSL encuentra, en particular, la teoría de Valores Humanos Básicos propuesta por Schwartz en 1992 y la teoría de la Acción Planificada desarrollada por Ajzen en 1991, como los dos marcos teóricos más relevantes a la hora de analizar dicha relación entre valores personales e intención emprendedora. En el mismo sentido, esta RSL identifica esta temática como un campo novedoso de investigación ya que la mayoría de las aportaciones relevantes se publicaron a partir de 2011, con la mitad de los resultados apareciendo a partir de 2017.

Por otra parte, se presenta un estudio empírico que analiza dicha relación. En esta perspectiva, esta tesis propone un análisis sobre el rol que tienen los valores personales colectivistas en la formación de las intenciones emprendedoras. Para ello, se realizó un estudio comparativo entre países con una muestra compuesta por dos regiones, Hampshire en el Reino Unido y Cataluña en España. El cuestionario sobre Valores e Intenciones Empresariales (VIE) fue usado para analizar dicha relación valores-intenciones. Como resultado, podemos concluir que los valores personales ejercen un efecto indirecto y negativo en las intenciones emprendedoras a través de la Actitud Personal y la Control Conductual Percibido del individuo. No obstante, también se encontró que los valores personales ejercen un efecto positivo e indirecto a través de la Norma Subjetiva. Los resultados son consistentes en ambos países.

Esta tesis destaca que no sólo los valores individualistas son necesarios para estimular la formación de intenciones

emprendedoras, sino también los valores de una naturaleza colectivista. Estos valores colectivistas explican la formación de intenciones emprendedoras. Sin embargo, encontramos que muy pocos estudios hasta el momento han centrado su análisis en estos valores colectivistas.

Por último, esta tesis propone conclusiones e implicaciones relevantes. De esta forma, se incluye una agenda futura de investigación y oportunidades para poder seguir explicando dicha relación entre VP e IEs.

Palabras clave: valores personales; intención emprendedora; emprendimiento; valores colectivistas; actitud personal; norma subjetiva; control conductual percibido

Index

Acknowledgements	5
Abstract	9
Resumen.....	11
Index	15
List of Tables	19
List of Figures.....	21
Chapter 1 - Introduction.....	23
1.1. Statement of the problem	23
1.2. Background of the study	26
1.3. Personal Values	28
1.4. The importance of the personal values in the entrepreneurial intention	30
1.5. Research Objectives	32
1.6. Structure of the dissertation	33
Chapter 2 - Literature Review.....	35
2.1. Introduction.....	36
2.2. Theoretical Framework.....	38
2.3.1. Personal Values.....	38
2.3.2. Entrepreneurial Intention Models	41
2.3.3. Personal Values and Entrepreneurial Intention	42
2.3. Methodology	43
2.4. Findings.....	47
2.4.1. Synthesis of the Results	49
2.4.2. Integrative Conceptual Framework.....	53
2.5. Discussion.....	58
Chapter 3 - Theoretical Framework	61
3.1. Introduction.....	62

3.2. Theoretical Assumptions	64
3.2.1. Collectivistic personal values and the entrepreneurial intention 65	
3.2.2. The conservation dimension.....	67
3.2.3. The self-transcendence dimension	69
3.2.4. Research Model.....	71
Chapter 4 - Methodology	73
4.1. Sample	73
4.2. Measures.....	75
4.3. Data analysis	78
Chapter 5 - Results	79
5.1. Measurement Model.....	79
5.2. Structural model.....	81
5.3. Multigroup analysis	84
Chapter 6 - Discussion	89
6.1. Implications and Future Research Opportunities.....	89
6.2. Discussion of the empirical results	94
6.3. Implications from the empirical analysis.....	97
Chapter 7 - Final Recommendations.....	101
7.1. Conclusions	101
7.2. Limitations.....	103
References.....	105
Appendix	127
Questionnaire.....	137
Values and Entrepreneurial Intention (VIE Questionnaire)	137
Demographic Data	137
Your intention on Career Paths	139
Published Articles	149

List of Tables

Table 1: Combinations of PV and EI theories used in the papers selected	50
Table 2: Influence of BHV dimensions on TPB variables.....	55
Table 3: Descriptive analysis	74
Table 4: Path coefficients for the multigroup analysis.....	83
Table 5: Knowledge gaps and future research opportunities.....	90
Table A1: Papers included in the systematic literature review ..	127
Table A2: Measurement model indicators.....	133
Table A3: Means, standard deviations, and correlations between latent variables for the full sample	134
Table A4: Means, standard deviations, and correlations between latent variables for the Spanish sample	135
Table A5: Means, standard deviations, and correlations between latent variables for the UK sample	136

List of Figures

Figure 1: The role of personal values in entrepreneurial behaviours	32
Figure 2: The Theory of Basic Human Values	40
Figure 3: The Theory of Planned Behaviour	42
Figure 4: Steps in the systematic literature review	45
Figure 5: Timeframe for the SLR	48
Figure 6: Integrative Conceptual Framework	54
Figure 7: Collectivistic personal values in the formation of entrepreneurial intentions	72
Figure 8: Results of the structural model with both individualism and country dummies	80
Figure 9: Results of the structural model with individualism dummy	86

Chapter 1 - Introduction

In this chapter, we introduce and delimit the election of this field of study. We aim to describe the objectives and conceptual meanings which anticipate the purposes of this dissertation. In this sense, we define the elements under study, trying to build a synthesis of the main ideas that are found at the heart of this dissertation.

1.1. Statement of the problem

This dissertation aims to analyse how the individual's personal-value structure affect the formation of entrepreneurial intentions. It will contribute to a deeper understanding of the process through which individuals make their decisions. In this case, it will allow to shed light on how individuals consider the decision of starting up a company.

The focus on the person as the key agent has a long tradition in Economics. In this sense, we can refer back to the Austrian School of Economics. This school centres its analysis on the possible outcomes of the small details, the trivial decisions. Thus, this Economics School has the "micro" analysis as its main interest. In this sense, it is even more fascinating to discover the underpinning of their models of economic growth. Austrian economists centre their analysis from the individual's inner perspective. This is the

core of their endogenous models of Economics Growth. Particularly, the Austrian School of Economics has largely regarded the individual itself as the most important variable in their analysis. They believe in the individual and focus their expectations on the analysis of them.

In this respect, this dissertation centres its analysis in the importance of the individual. We believe in the individual as an active agent that takes decisions. The individual is the one implementing improvements and innovations along time. The individual is the one who applies those changes. This is the reason why we place a great emphasis on the study of the individual. More specifically, within this doctoral dissertation, we aim to analyse how the personal value structure contributes to shaping the individual's entrepreneurial intentions. In this sense, we attempt to improve the understanding of the decision of starting up a company when individuals have to face this process.

In our current society, individuals are free entities responsible for the decisions they make. In this regard, it is important to understand the mental processes that take individuals to evaluate the pros and cons of any decision, and the elements that are involved in this process. To be able to do so, this PhD uses psychological models. Psychology is the field of study that brings the opportunity to comprehend how the human being takes decisions. The understanding of the individual's decision-making process is a powerful tool that could bring promising results in the field of entrepreneurship.

Entrepreneurship is a business adventure where there is a scenario of great uncertainty. However, at the same time, it also involves the possibility of satisfaction and reward. For sure there is risk at every planned decision, although there is also pleasure on it. It is a game where there are economic as well as personal rewards. For the researcher, this is a really valuable field of study which is full of opportunities to learn about the human behaviour. Analysing the entrepreneurial decision-making process is an interesting field of research, one in which this dissertation has established its interest.

The individuals' mind pushes them to implement their actions. In all decisions there are mental processes involved that push individuals to actively carry their decisions out. In this situation, if the entrepreneurial decision is to be praised and promoted, we need to understand how this decision is taken. Before the individual takes any decision and thus manifest the intention to perform a behaviour, she or he will generate a positive evaluation¹. The individual considers the behaviour to be worthy or to provide positive outcomes. Similarly, the individual will develop a sense of their capacity to perform this behaviour (whether the behaviour is feasible or not). These two elements (together with others) will shape the feeling of intention that pushes the individual to perform their actions.

Human beings act. We believe that the "intention" is what pushes agents into their actions. The role of personal values may not be straight forward. However, they represent the most important principles or goals that are to be pursued across different and diverse situations. These values will surely play a role in affecting what the person sees as desirable and/or feasible for herself or himself. And, through these variables, will affect the intention to perform different behaviours.

According to Prof. Ludwig von Mises (p. 18, 1940), "action is always necessarily rational". Consequently, an acting person is always aiming his action to satisfy some desire. On the contrary, irrational behaviours do not exist, it is only the reasoning behind that action which may be unknown. In this sense, we try to better comprehend what is behind the entrepreneurial decision. We firmly believe that personal values are one of the key factors that anticipate this entrepreneurial decision. Individuals are proactive decision-makers and only in the mind of each one is where these personal values exert their influence. Psychology is a wide-range field of study, however, within this dissertation, we focus specifically on the role

¹ This positive appraisal of the action could be considered as a "desire" of the individual to perform the behaviour.

that personal values have on the formation of entrepreneurial intentions.

1.2. Background of the study

The current global crisis and changes in the worldwide economic system have made researchers pay more attention to phenomena such as entrepreneurship and new-venture-formation process. It is true that there is an increasing concern about the entrepreneur, although the study of entrepreneurship is nothing new. Many authors have been studying this topic, for instance, Carter, Gartner and Reynolds (1996) focused on what, how many and when activities are initiated or performed by nascent entrepreneurs. They also dealt with the “gestalt of entrepreneurial activities”, as a sequence of activities combined to create an organisation (Gartner, Carter and Reynolds, pp. 103, 2010). Nevertheless, there are different approaches analysing this phenomenon and there is still much to be known to fully understand how the decision to start-up a venture is formed.

The term “entrepreneur” is a relatively new one coined by the literature focused on business and management. Schumpeter is probably the best-known author and one of the first to introduce the figure of the entrepreneur in the study of the creation of economic value². In the Neo-classic literature, the entrepreneur was launched as an active agent, like risk-takers or capitalists³. In this regard, Adam Smith or Richard Cantillon started to refer the name

² See Croitoru, A. (pp. 146, 2012), “*Schumpeter, JA, 1934 (2008), The theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle*”. Journal of comparative research in anthropology and sociology, Vol. 3 No. 2, pp. 137-148.

³ See Hébert, R. F. and Link, A. N. (pp. 241, 2009), “*A history of entrepreneurship*”, International Journal of Business and Social Science, Vol. 2 No. 9, pp. 241-242.

of entrepreneur as “contractor”, “traders” or like active agents in charge of stimulating the growth of a particular region⁴.

It was Schumpeter (1934), in turn, who considered the figure of the “innovative entrepreneur” as the one in charge of the “creative destruction”. In the same vein, Frank Knight (1921) ascertained that the entrepreneur is a risk-taker agent bearing the uncertainty. Other approaches started to appreciate the figure of the entrepreneur as an opportunity seeker (Kirzner, 1973). This is, Psychology started to be immersed in the process of analyzing the figure of the entrepreneur, trying to profile the features of entrepreneurs (McClelland, 1961). Theories focusing on cognitive models began to explain the process of becoming entrepreneurial. Namely, Bandura and Ajzen created frameworks to anticipate intentional behaviours.

The Social Cognitive Theory (Bandura, 1986) and the Theory of Planned Behaviour (Ajzen, 1991) were the two frameworks that together have been frequently used to predict purposeful behaviours. The cognitive emphasis is what determines the meaning of being an entrepreneur. It was Norris Krueger and Alan Carsrud (1993) who related cognitive models with entrepreneurial behaviours. They applied the theory of Planned Behaviour developed by Ajzen (1991) in the field of entrepreneurship. In this sense, entrepreneurial literature started to be focused on psychological variables influenced by the context. This context also profiles the features of the entrepreneurs (Krueger, Reilly and Carsrud, 2000).

There are different approaches to explain human behaviours. However, in this dissertation we aim to embrace the importance of the cognitive, this is, to analyse the importance of the psychology and how context affect entrepreneurial behaviours. Following the review by Prof. Liñán and Prof. Fayolle (2015), they acknowledge

⁴ See the doctoral thesis by Prof. Liñán (2004), “*Educación empresarial y modelo de intenciones. Formación para un empresariado de calidad. Análisis empírico para la provincia de Sevilla*”, (Doctoral dissertation. University of Seville).

that personal and demographic variables like educational level or institutional factors are responsible for entrepreneurial activity. In this regard, the dissertation focuses on the belief that the cognitive variables and context is what stimulates individuals to assess entrepreneurial intentions. Thereby, the dissertation proposes a cross-country analysis to account for the possible influence of the context in the formation of entrepreneurial intentions.

1.3. Personal Values

This dissertation cannot begin without anticipating the meaning of the word “value”. First of all, there is a wide range of meanings around this word. Particularly, about how the word “value” could be coined. Rohan (pp. 255, 2000) already anticipated this discrepancy, concluding that “definitional inconsistency has been epidemic in values theory and research”.

A definition of value may be “the act of appraising the worth for the exchange of a commodity” (Compact Oxford English Dictionary, 1991) or “to give a judgment about how much money something might be sold for” (Cambridge Dictionary, 2020). That is, the term “value” is used with the meaning of “valuable” or “worthy” or “characteristic” (Schwartz, 1992). On the contrary, if evading this monetary perspective about evaluating an object and there is a focus on examining a person or an action, then the word “value” may be related to how this entity could be appreciated.

In this sense, Norman Feather (1996, pp. 224) explain how the valuing process analyses “the possible actions and outcomes within particular situations to our value system, testing them against our general conceptions about what we believe is desirable or undesirable in terms of our own value priorities”. That is, value is the attraction or displeasure that involves an entity. It is the evaluation that individuals make concerning the consequences of their own decisions. They determine the personal outcomes and

serve as guiding principles in life (Schwartz, 1992). Appropriately, this value may be seen as the nexus between people's liking for an entity and the value priority any individual establish before carrying out any behaviour (Feather, 1995),

These values need a system of value priorities that individuals could use to determine what they want and need from other individuals in personal and emotional terms, and could use to reach the requisite to measure the order and the unified purpose of appraising this entity. Without this system of value priorities, individuals are not able to classify nor to establish the appreciation of something.

Values act as a driving force, as a push-factor that induce individuals to evaluate and guide their decision-making process (Lewin, 1952). Values may help discerning what types of activities have either a positive or a negative perception. For this reason, "value" has been regarded as the most significant drivers of attitudes (Herek, 1986; Maio and Olson, 1994; Murray, Haddock and Zanna, 1996). Personal values have been demonstrated and considered as one of the most influential factors in making decisions that lead to subsequent behaviours (Maio, Olson, Allen and Bernard, 2001; Murray et al., 1996). They play a fundamental role to better comprehend the human behaviour (Bardi and Schwartz, 2003). Personal values represent the cognitive force to achieve the main goals in life (Rokeach, 1973).

If personal values are understood as a descriptive centrality of explanatory concepts, we consider these personal values as the individuals' Compass Rose. They guide individuals and they also define individuals that are unique. This understanding may anticipate the individuals' decisions and predict future entrepreneurial intentions. Unquestionably, in scenarios of ambiguity or uncertainty, personal values determine the guiding force to guide pre-established objectives (Feather, 1995; Gorgievski, Stephan, Laguna and Moriano, 2018). Therefore, we can expect the weight of the desirability or perception of a possible event to be

influenced by the composition of this individual's personal-value structure (Holland and Shepherd, 2013).

1.4. The importance of the personal values in the entrepreneurial intention

The understanding of this personal value structure is important because it will push individuals to foster their entrepreneurial intentions. Indeed, this is the other assumption of this research, the personal-value structure affects the formation of entrepreneurial intentions. For this reason, we firmly believe that personal values stimulate the individuals' behaviour and consequently, they are prone to stimulate their entrepreneurial intentions. Prior to an active behaviour, there is an intention. Intention is the first element that precedes an individual's real action. Considering the role of personal values as the prelude of the entrepreneurial intention, we aim to comprehend how individuals foster their entrepreneurial behaviours.

This entrepreneurial intention is the reason of the individual's intentional behaviour. When formulating complex decisions, such as starting up a business, individuals need a motivation that push them to perform their behaviours. In this sense, this research tries to build a gradient vector composed from the role of personal values to better understand the formation of entrepreneurial intentions. The key component is the need to transform this motivation, desirability or need, into certain actions to enhance this entrepreneurial intention. This intentionality is the core that we include to better understand entrepreneurial behaviours. For this reason, the research considers the personal value relationship as the immediate antecedent that evaluates future entrepreneurial intentions.

The role of the personal values in the decision-making process has been a source of considerable attention in the field of psychology

(Bardi et al, 2009; Schwartz and Boehnke, 2004) and cross-country studies (Hofstede, 1980; Schwartz, 2004). However, little attention has been paid to better understand the importance of the individual in the entrepreneurial intention (Holland and Shepherd, 2013; Liñán and Chen, 2009). In this sense, less attention is given to the role of personal values in the process of venture creation (Liñán and Kurczewska, 2017). This fact arises its importance to continue inquiring into the elements that concern the individual's decisions.

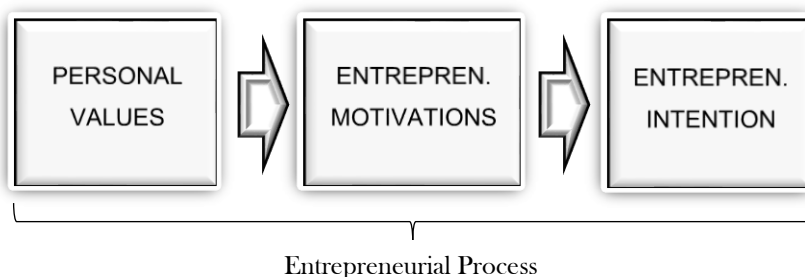
Brandtstädter and Lerner (p. ix, 1999) acknowledged in the introduction of their book, “humans beings are proactive entities that foster their own development and individuals are both the products and active producers of their ontogeny over their life span”. We believe that prior to taking any action, there is something internal that pushes the individual to have a positive perception about this action. In this sense, the intentionality is the trigger that connects the action. An action is developed due to there is a previous intention. Without this intention, there could not be an active attitude. The process of intentionality generates on individuals a positive attitude about an action that help individuals structure their behaviours and so, to formulate real behaviours. For this reason, we consider the intentionality as the push-factor that enables individuals to foster their decisions.

Regarding this dissertation, it acknowledges “intention” as the best proxy connecting the positive perception of an action to having a proactive behaviour. Intention is as a conscious state of mind that directs personal attention, experience and behaviour toward a specific goal (Bird, 1988). Therefore, this intention is the prelude to the real entrepreneurial action. Entrepreneurs do not engage in entrepreneurship by accident; they do it intentionally as a result of their choices (Krueger, 2007a). Since this intentionality may be seen as the closest proxy to becoming entrepreneurial, we aim to investigate how the role of personal values stimulates this entrepreneurial intention.

1.5. Research Objectives

The previous section (1.4) has provided the motivation to carry out this dissertation. This research starts by analysing the role that personal values have on intentional entrepreneurial behaviours. More specifically, to analyse how the individual's personal-value structure affect the decision to start-up a company. We firmly believe in the role of the personal-value structure as one key driver that conducts the formation of entrepreneurial intentions. We believe that prior to this real active entrepreneurial behaviour, there is a clear intention to perform the entrepreneurial action. The intention is the preamble of the real entrepreneurial behaviour. Next, Figure 1 shows the theoretical proposition that is conducted along the dissertation.

Figure 1: The role of personal values in entrepreneurial behaviours



Following with this introductory chapter, this dissertation aims to provide a clearer understanding of the role of (collectivistic) personal values in the formation of entrepreneurial intentions. Therefore, since personal values are assumed to affect individual's entrepreneurial intentions, either directly or indirectly, the dissertation address the following research objectives:

- ✓ To anticipate factors that enable or hinder entrepreneurial behaviours.

- ✓ To analyse the effect that the personal-value relationship has on the formation of entrepreneurial intentions.
- ✓ To offer new insights exploring the link between personal values and entrepreneurial intention antecedents (namely, personal attitude towards entrepreneurship, subjective norms and perceived behavioural control).
- ✓ To discover the specific role that the collectivistic personal values have in the formation of entrepreneurial intentions and its antecedents.
- ✓ To derive implications that may be useful in the proposition of new education programs to encourage a more pro-entrepreneurial personal-value structure.

1.6. Structure of the dissertation

To clarify the understanding of the dissertation, we propose the following structure of the content. In this sense, the present chapter introduces the main motivation to write the dissertation and the objectives that will be sought.

Chapter 2 presents a journey from personal values to entrepreneurial intentions. That is, the dissertation carries out a systematic literature review focused on the understanding of the research topic. This chapter provides a solid knowledge base about what has been written in the academic literature focused on personal values and entrepreneurial intention.

Then, Chapter 3 introduces the theoretical framework and assumptions about the role that collectivistic personal values have on the formation of entrepreneurial intentions. In this sense, the dissertation analyses the two collectivistic dimensions that all together comprehends the formation of the collectivistic personal values. Chapter 4 presents a methodology to analyse the role that these values have on the formation of entrepreneurial intentions in

two different regions. A cross-country study is proposed to better synthesise this topic research.

Chapter 5 and 6 show the result and main findings of the empirical research. A description of the analysis proposed as well as the theoretical foundations of the research is found along these two chapters. Finally, Chapter 7 suggests the main implications of the dissertation. In this vein, some final recommendations, conclusions and implications are presented. Last but not least, in this chapter, the dissertation recommends a research agenda where future research opportunities are pointed out to better understand the role that personal values have on the formation of entrepreneurial intentions.

Chapter 2 - Literature Review

In this chapter, we aim at explaining the theoretical assumptions that justify the present dissertation. In this sense, along this chapter we present a systematic literature review (SLR)⁵ to analyse how the different approaches have been considering the role of personal values in entrepreneurial intentions.

Despite the long tradition that these two constructs enjoy in social psychology, they have only recently been analysed together in entrepreneurship research (Frese and Gielnik, 2014). Therefore, the purpose of this SLR is to analyse the existing contributions, jointly studying personal values (PVs) and intentions in entrepreneurship.

To the best of our knowledge, this is the first review that addresses this fast-growing area of research. It provides a comprehensive mapping of the contributions to date, as well as an integrative conceptual framework to synthesize accumulated knowledge in this field of research. It also identifies subsisting knowledge gaps and a number of future research opportunities.

To conduct this SLR, three widely used databases were searched: Scopus, ABI-INFORM and Web of Science. 451 initial hits were successively narrowed down to a final list of 22 journal articles matching our inclusion criteria. From the findings we could argue that this field of research is very recent, since the selected papers

⁵ From now onwards we refer SLR as systematic literature review.

have all been published since 2011, half of which have appeared since 2017.

2.1. Introduction

For decades, entrepreneurship scholars have tried to increase their understanding of the entrepreneurial process (Galanakis and Giourka, 2017; Zahra, Wright and Abdelgawad, 2014). In particular, the entrepreneurial intention (EI) has attracted increasing attention as a key driver in predicting new venture creation behaviours (Bird, 1988; Kautonen, Gelderen and Fink, 2015). The theory of planned behaviour (TPB) is undoubtedly the most widely-used model in EI research (Liñán and Fayolle, 2015; Schlaegel and Koenig, 2014).

Intentions are considered the single best predictor of behaviour (van Gelderen, Kautonen, Wincent and Biniari, 2018; Krueger and Carsrud, 1993). In this sense, intentions reflect the magnitude of the effort the individual is prepared to exert to perform a certain behaviour (Ajzen, 1991). Intention itself is probably the better-established and empirically-tested antecedent of entrepreneurial behaviour, according to a consolidated empirical (Delanoë-Gueguen and Liñán, 2019; Kautonen et al., 2015; Kautonen, van Gelderen, and Tornikoski, 2013; Liñán and Rodríguez-Cohard, 2015; van Gelderen et al., 2018) and theoretical literature (Fayolle and Liñán, 2014; Krueger, 2007a; Krueger and Carsrud, 1993).

Research has tried to deepen the understanding of the EI formation. For instance, some additional variables have been considered, such as the entrepreneurial identity (Pfeifer, Šarlija and Zekić Sušac, 2016). Other authors, in turn, advocate the analysis of the role of Personal Values (PVs) in the entrepreneurial process (Fayolle, Liñán and Moriano, 2014). Related to this, some studies have found PVs to play a key role in the entrepreneurial decision-

making process. Thus, according to Gorgievski, Ascalon and Stephan (2011), the criteria to define success in entrepreneurial endeavours is related to prioritised PVs. Likewise, Bolzani and Foo (2018) associate the decision to internationalise with the PV system.

According to Veroff and Smith (1985), values are cognitive, deliberate, and evaluative determinants of goals. Moreover, they establish the conception of the desirable (Kluckhohn, 1951). Personal Values represent the cognitive recognition of the correct way to behave or the correct end-state to strive for (Rokeach, 1973). The importance of PVs lies in their capacity to guide goal-setting and to act as the decision criteria in ambiguous or uncertain scenarios (Feather, 1995; Gorgievski et al., 2018). These PVs are important in explaining human actions (Bardi and Schwartz, 2003). They have been regarded as one of the most significant drivers in guiding intentions and subsequent behaviour (Maio et al., 2001; Murray et al., 1996).

The majority of research finds that individualistic-like PVs (such as achievement, stimulation, and self-direction) are those that exhibit a positive relationship with EI (Liñán, Moriano and Jaén, 2016; Yang, Hsiung and Chiu, 2015). In contrast, more recently, Hueso, Jaén, Liñán and Basuki (2020) found that collectivistic like values are also related to EI, although the relationship remains mostly indirect. Nevertheless, there are still relatively few studies analysing the relationship between PVs and EI (Tipu and Ryan, 2016). Furthermore, existing research is only partial and lacks an integrative perspective regarding this relationship. Therefore, the present research aims to identify and analyse the extant literature on the role that PVs play in the formation of EIs. To this end, all articles published in academic journals up until the beginning of 2020 have been examined.

As a result of this literature review, a general overview of the accumulated knowledge on the relationship between PVs and EI can be presented. This is important due to the role that PVs play in prompting decisions and actions (Feather, 1980; 1995), especially given the inherent complexity in entrepreneurial behaviour.

Choosing to become an entrepreneur has far-reaching implications for the individual. Therefore, personal goals and priorities are likely to affect EIs through several mechanisms. The present research identifies several of these mechanisms, although others still need to be addressed.

Additionally, the study proposes an integrative conceptual framework where the reviewed literature is synthesized, including potential relationships between PVs and other elements in the entrepreneurial process. Based on this framework, this SLR identifies the specific knowledge gaps and proposes a future research agenda in this academic field.

2.2. Theoretical Framework

Both the concept of PVs and that of intention originate from the literature on psychology. In particular, the work by Rokeach (1973) is considered to be one of the fundamental contributions to the theory of human values. Similarly, the work by Fishbein in collaboration with Ajzen (Fishbein and Ajzen, 1975) is also regarded as foundational in the study of behavioural intentions. However, there has been relatively little integration of both concepts within the entrepreneurship field of research.

2.3.1. Personal Values

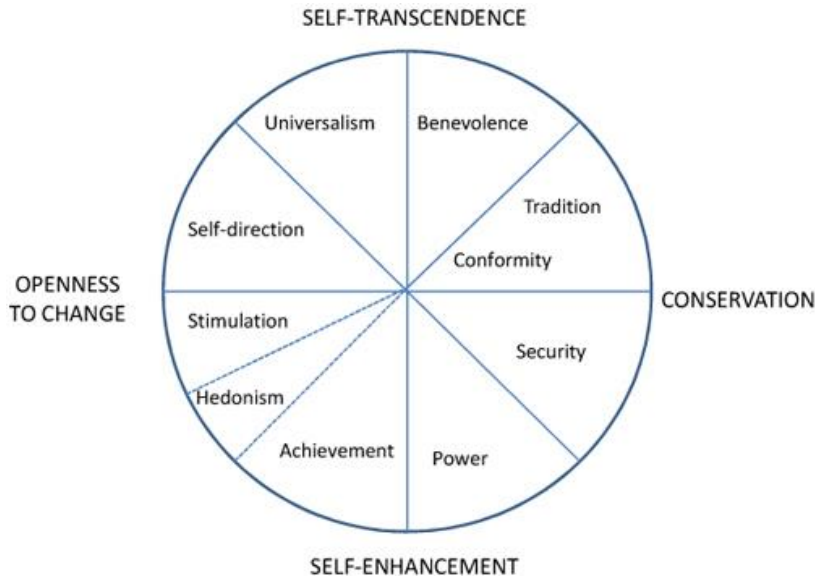
The importance of the PVs for each individual has long been recognised (Kluckhohn, 1951). Without a hierarchically organised system of PVs, individuals would not be able to make decisions and pursue their goals in life (Allport, 1961). Values should be given centrality as descriptive and explanatory concepts and, further, personality could be understood as a system of values (Rokeach, 1973). Personal Values are considered as guiding principles in life,

where individual values remain relatively stable across situations and during human lifespan (Schwartz, 1992). Values are ordered by the relative importance that the individual attaches to each of them (Allport, 1961; Maslow, 1959; Pepper, 1958; Rokeach, 1973). The prevalence of certain values over others determines the individual's "dominating force" that conditions their day-to-day decisions (Allport, 1961, p. 543).

Values affect how people view situations, consider their alternatives, and eventually act (Holland and Shepherd, 2013). These abstract structures, held as "organized summaries of experience", provide "continuity and meaning under changing environmental circumstances" (Feather, 1980, p. 249). However, definitional inconsistency remains epidemic in values theory and research (Rohan, 2000). The importance of people's value priorities in understanding and predicting attitudinal and behavioural decisions has been emphasised (Rohan, 2001). The understanding of these PVs is important because they induce valences on possible actions (Feather, 1995). Therefore, the PV structure does indeed affect the individual perspective and how individuals make decisions and behave.

Personal Values guide individuals' intentions, choices and executed behaviours (Bardi and Schwartz, 2003). Values are about desirable end states or behaviours and transcend specific situations. As a consequence, they guide selection or evaluation of behaviour and events (Rokeach, 1973; Schwartz and Bilsky, 1987). Individuals behave according to their PV structure because they need a level of consistency between their beliefs and actions (Bardi and Schwartz, 2003; Rokeach, 1973). For this reason, PVs have been identified as a key factor in the decision-making process (Feather, 1980; Rokeach, 1973; Bardi and Schwartz, 2003).

Figure 2: The Theory of Basic Human Values



Source: Based on Schwartz (1992, 1994)

Schwartz's (1992) Theory of Basic Human Values (BHV) is probably the most widely used framework to explain personal values. See Figure 2. It identifies ten basic values that are prevalent in all individuals and these values form a quasi-circumplex structure based on the inherent conflict or compatibility between their motivational goals (Schwartz and Bilsky, 1987). Adjacent values are compatible, while opposing values are conflicting. The ten basic values may be grouped into four value-dimensions (Schwartz, 1992): self-enhancement (including power and achievement values), openness to change (stimulation and self-direction values), self-transcendence (universalism and benevolence), and conservation (tradition, conformity and security). Hedonism would be placed between achievement and stimulation in the value-circumplex, and shares elements of the two corresponding value-dimensions; for this reason it is usually excluded when the value

dimensions are studied (Gorgievski et al., 2018). According to this circumplex structure, self-enhancement and self-transcendence are opposing dimensions, as are openness to change and conservation.

2.3.2. Entrepreneurial Intention Models

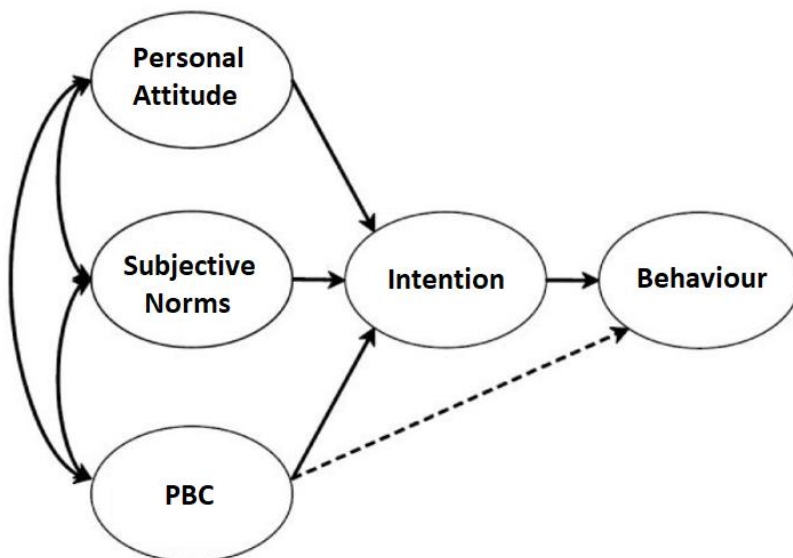
The literature considers that intention models are central to ascertaining how individuals behave and develop their actions (Galanakis and Giourka, 2017). Therefore, a stronger intention to carry out this behaviour should reflect itself in a higher likelihood of it being performed (Ajzen, 1991). Behaviours are the consequence of affective (feeling and emotional responses), cognitive (beliefs, memories, and perceptions of events), and conative variables (intentions and predictions about individual behaviour in response to an event) (Fishbein and Ajzen, 1975).

Entrepreneurship (or new venture creation) qualifies as a voluntary and conscious behaviour under volitional control (Bird, 1988; Krueger and Carsrud, 1993; Schlaegel and Koenig, 2014). Therefore, EIs are widely studied as a relevant antecedent for entrepreneurial behaviour (Delanoë-Gueguen and Liñán, 2019; Kautonen et al., 2015; van Gelderen et al., 2018). Entrepreneurial intentions are individual states of mind that direct attention, experience, and actions towards the idea of starting up a new venture (Bird, 1988).

In entrepreneurship research, the theory of planned behaviour (TPB) stands out as the most prominent model to explain the start-up intention (Krueger and Carsrud, 1993; Kautonen et al., 2013; 2015). See Figure 3. In this model, the constructs explaining the individuals' entrepreneurial intentions include the personal attitude towards entrepreneurship (PA), subjective norms (SN), and the perceived behavioural control (PBC). First, PA refers to the positive or negative evaluation, or appraisal, of the entrepreneurial behaviour and its consequences. Second, SN symbolizes the support expected from the individual's close environment (family, friends, relatives, etc.) if the individual exhibited start-up

behaviours. Third, the PBC indicates the perceived ease or difficulty in undertaking entrepreneurial actions (Ajzen, 1991; Krueger and Carsrud, 1993; Kautonen et al., 2013; 2015).

Figure 3: The Theory of Planned Behaviour



Source: Ajzen (1991)

The number of research studies into EIs is substantial (Liñán and Fayolle, 2015) and continues to grow (Donaldson, 2019). This research has identified a considerable amount of variables affecting the formation of intentions that include both personal and context variables (Liñán and Fayolle, 2015). In particular, PVs have been considered a motivational determinant of EIs (Fayolle et al., 2014).

2.3.3. Personal Values and Entrepreneurial Intention

Starting a venture is a complex process that involves the realisation of several tasks and usually includes considerable time delays (Galankis and Giourka, 2017; Kautonen et al., 2015). For this reason, it may be best described as a goal-directed behaviour

(Bagozzi and Kimmel, 1995). Therefore, since PVs are the guiding principles that help both set and strive towards achieving personal goals (Rokeach, 1973; Schwartz, 1992), they should be relevant in the determination of EIs.

Despite this fact, few studies consider PVs as an antecedent of EI (Liñán and Fayolle, 2015). Although research on the values of entrepreneurs remains relatively scarce (Holland and Shepherd, 2013), it indicates a significant relationship between individualist values and entrepreneurial behaviour (Liñán et al., 2016). Similarly, individualist values positively predict the EI of respondents (Liñán et al., 2016; Yang et al., 2015). More recently, additional research has confirmed this relationship (Gorgievski et al., 2018; Morales, Holtschlag, Masuda and Marquina, 2019).

Individualistic PVs, such as achievement, power, and self-direction, are considered as being more consistent with entrepreneurship (Gorgievski et al., 2018), since they emphasise the pursuit of goals that may be achieved through this career choice. This influence may depend on the predominating cultural values in society and is thus affected by context (Liñán et al., 2016; Morales et al., 2019; Munir, Jianfeng and Ramzan, 2019). On the other hand, research on the role of so-called collectivistic PVs on EI is even scarcer. It finds support for the argument that certain collectivistic values could have a small indirect positive effect on EI (Hueso et al., 2020). Therefore, there seems to be some conflict and substantial gaps in our knowledge regarding the PVs/EI relationship. The literature review carried out in this dissertation may well contribute to shedding light on this relationship.

2.3. Methodology

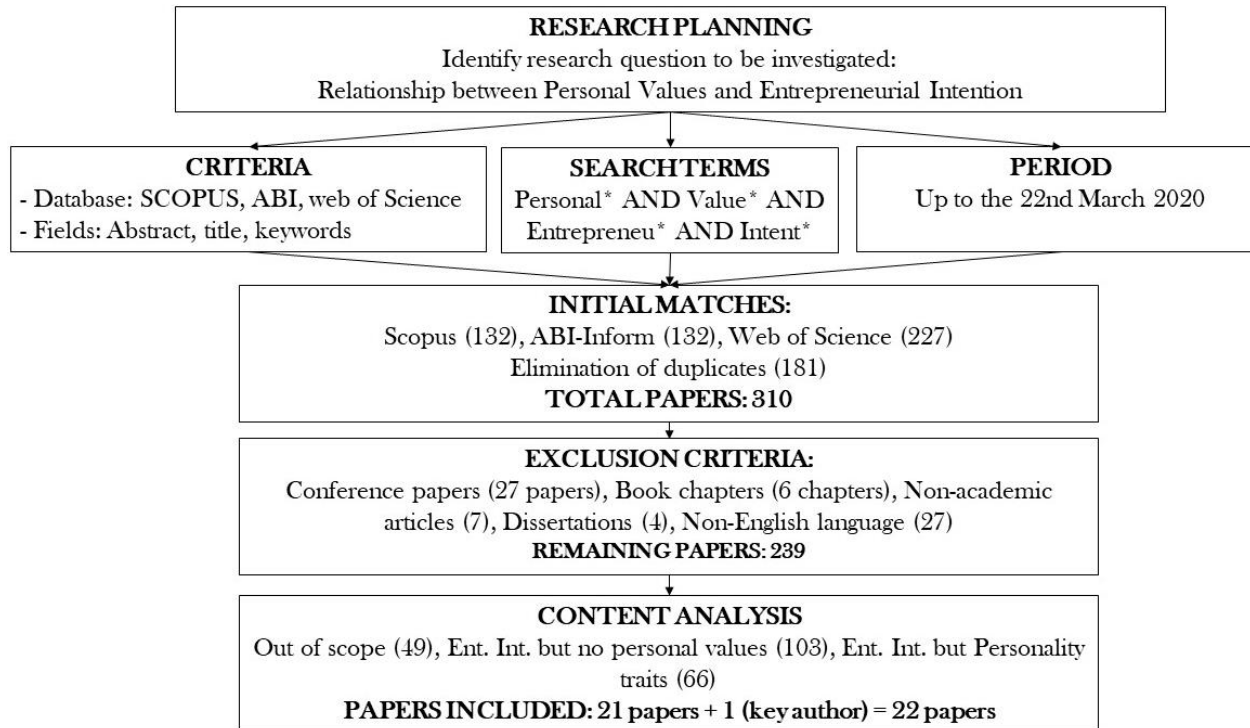
The present systematic literature review on PVs and EIs follows previous methodological recommendations (Armitage and Keeble-Allen, 2008; Tranfield, Denyer and Smart, 2003; Pittaway, Holt

and Broad, 2014; Rauch, 2020). Literature reviews are most useful to systematise knowledge in any field, since they serve to identify, evaluate, and relate previous contributions in the research area (Mulrow, 1994). The distinct feature of a systematic literature review (SLR) is a well-established procedure that specifies the method employed to identify, select, assess, and synthesise the evidence derived from previous publications (Armitage and Keeble-Allen, 2008; Boell and Cecez-Kecmanovic, 2015). It offers a normalised procedure to investigate the existing literature: a method that is replicable, transparent, objective, unbiased and rigorous (Boell and Cecez-Kecmanovic, 2015). This SLR is a domain-based review. It synthesizes and extends a body of literature that resides in the same substantive domain (Palmatier, Houston and Hulland, 2018).

The relevant search terms were selected in accordance with the aims of this study, as shown in Figure 4: personal* AND value* AND entrepreneur* AND intent*. The search was carried out within the Scopus, ABI-INFORM and Web of Science databases. These three different databases were selected to make the search more comprehensive. The search terms were included in the following fields: article title, abstract and keywords. The timeframe for the search was left open, and unrestricted to any dates (the last search was carried out on 22nd March, 2020).

This search initially yielded 491 matches with 181 duplicates, which were immediately removed. The remaining 310 studies included 27 conference papers, 6 book chapters, 4 dissertations, 7 non-academic journals, and 27 non-English-language papers.

Figure 4: Steps in the systematic literature review



All of these were excluded to avoid possible variability in the peer review process (Jones, Coviello and Tang, 2011). The remaining 239 publications were content-analysed to confirm their relevance. Publication dates range from 1992 (1 paper), 2001 (1 paper), and show a clear upward trend throughout the years up to 2019 (60 studies). The year 2020 (with 5 papers) remains incomplete. This is presented in Figure 5. Therefore, the studies jointly mentioning PVs and EIs are very recent and their production rate is also increasing very rapidly.

Each of these 239 papers was read by one of the authors to confirm its relevance according to our conceptual boundaries. First, 49 research papers were excluded. Despite the use of the key terms, they were not focused on either EIs or PVs. A second realisation was that up to 103 papers were focused on EI, but they used the term “values” in a very loose manner, not referring to PVs. These include papers on entrepreneurship education, which is generally argued should help instil “entrepreneurial values” in the participants, and papers measuring attitudes through the “expectancy value theory”. In other words, the term “value” is used with the meaning of “valuable” or “worthy” or “characteristic”, but not as personal goals or guiding principles (Schwartz, 1992). Several papers analysed “social values” as an indirect measure of culture or social norms, which again falls outside the scope of the study.

There are 66 other papers using the term “values” in the title, abstract or keywords, but are effectively analysing “personality traits”. Several of these papers analysed the Big Five personality traits (e.g., Nga and Shamuganathan, 2010), or other personality variables such as locus of control (e.g., de Pillis and Reardon, 2007), risk-taking propensity (e.g., Duffy, Fox, Punnett, et al., 2006), ability to identify opportunities (e.g., Pilková, Holienka and Jančovičová, 2017), and narcissism and Machiavellianism (e.g., Wu, Wang, Zheng, et al., 2019). Personality traits and PVs are both important in the configuration of the individual’s mind. However, consolidated results from the psychology literature consider traits and values as distinct constructs (Olver and Mooradian, 2003).

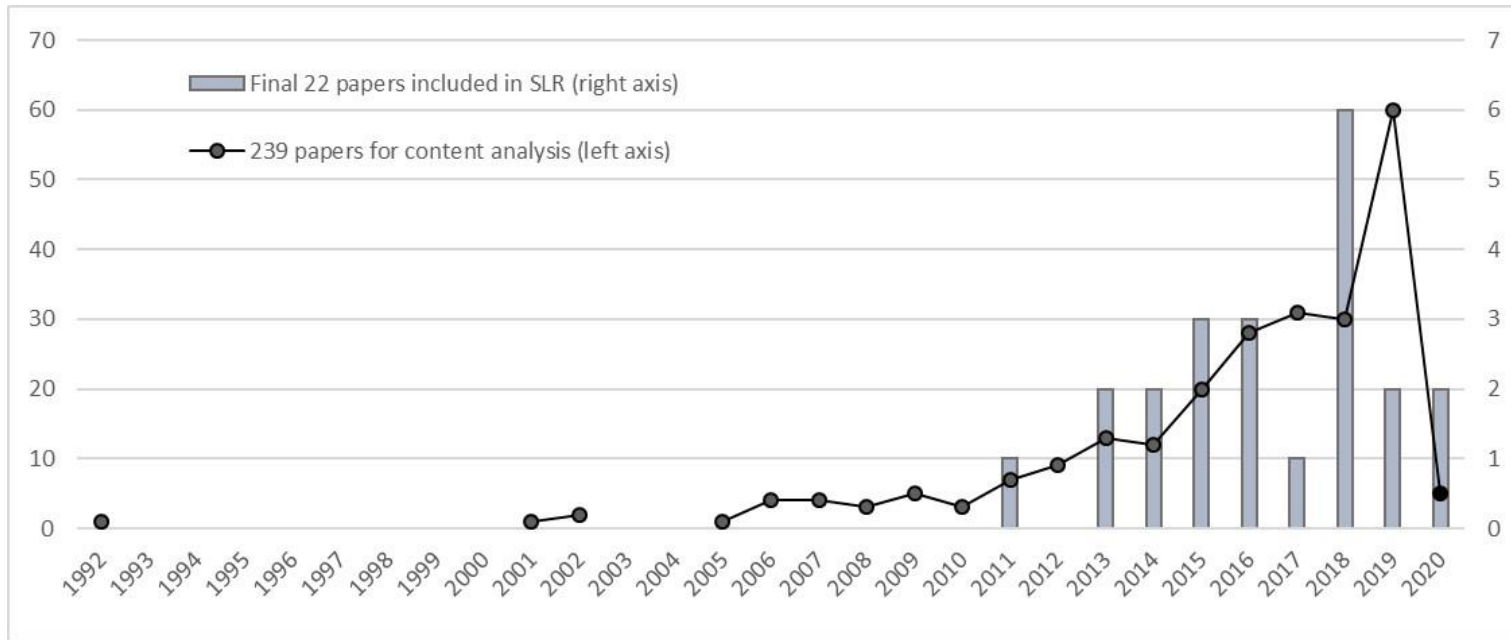
Traits are more biologically based (Goldberg, 1993; McCrae and Costa Jr, 2008), whereas values are a product of a person's environment, including culture, education, parental upbringing, and life events (Rokeach, 1973). Personal values reflect an individual's intentional goals and intentional commitments, while personality traits do not (Bilsky and Schwartz, 1994).

After the screening process, 21 documents were selected for inclusion. As a final check to guarantee comprehensiveness, additional relevant work from the key authors (authors of two or more of these 21 papers) were sought. One additional paper was thus found (Gorgievski et al., 2018), thereby yielding a total of 22 final papers included in the SLR. This additional paper was overlooked in the initial systematic search because it did not use the keyword "personal" in the search fields (instead, it used "human" and "individual").

2.4. Findings

Results are very recent in general. The years of publication range from 2011 to 2020, half of which (11 papers) have appeared from 2017 onwards (see Figure 2). Thus, the first findings are that the study of PVs and EI is a very novel area of research, and that the term "value" is used with very different meanings, and not only as "personal guiding principles". In fact, it is only in 2011 that any papers using PVs in EI research are found at all.

Figure 5: Timeframe for the SLR



2.4.1. Synthesis of the Results

Summary information regarding the 22 articles matching the inclusion criteria is presented in Table A1. Most of the papers are empirical and employ quantitative techniques, except for one theoretical, two qualitative, and one mixed-method (qualitative and quantitative) articles. The great majority of articles consider PVs as an antecedent that aids in the explanation of EIs. The only exceptions are the papers by Farrington, Gray and Sharp (2011) and by Geldhof, Malin, Johnson et al. (2014).

The former compares the work values associated with entrepreneurship in two different samples (business students and actual business owners), and finds that students exhibit values of a more idealistic nature than in the case of firm owners. In turn, Geldhof et al. (2014) use both PVs and EI as predictors of entrepreneurial behaviours, and their results indicate that entrepreneurial career values can predict innovation-related behaviours. Since the objective of this research is the analysis of papers jointly studying PVs and EIs, these two articles were maintained. They also provided some insight for the development of an integrative conceptual framework (see subsection below).

The remaining 20 papers consider PVs as direct or indirect antecedents of EIs. Here a theoretical paper is included (Fayolle et al., 2014), which proposes this to be the case, but also argues that PVs may moderate the intention-action link. Two other papers propose and test PVs as direct antecedents of the entrepreneurial attitude (Sihombing, 2018; Yang et al., 2015), but they do so within a framework in which attitudes explain the intention to start up (Yang et al., 2015) or the intention to quit (Sihombing, 2018). Finally, there are two qualitative papers that analyse the goals motivating entrepreneurial decisions: either internationalisation (Bolzani and Foo, 2018), or starting up (Muhammad, Robinson and Nisar, 2019). The former considers PVs (as defined by Schwartz, 1992) as the more abstract values that motivate the

internationalisation decision. The latter, in turn, uses no specific framework for PVs, but the values elicited are very close to some of Schwartz's (1992) values.

Table 1: Combinations of PV and EI theories used in the papers selected

Personal values theory	Type of entrepreneurial intention		
	Start-up Intention	Social Entrepr. Intention	Other intention
Basic Human Values	Fayolle et al. (2014) Espiritu-Olmos and Sastre-Castillo (2015) Yang et al. (2015) Liñán et al. (2016) Schmidt and Tatarko (2016) Fernandes et al. (2018) Gorgievski et al. (2018) Hueso et al. (2020)	Sastre-Castillo et al. (2015) Kruse et al. (2019)	Bolzani and Foo (2018)
Work Values	Farrington et al. (2011) Hirschi and Fischer (2013) ^a Geldhof et al. (2014) Tipu and Ryan (2016) Lechner et al. (2018) ^a	Kunttu et al. (2017) ^b	
Rokeach			Sihombing (2018)
Other PVs	Watchravesringkan et al. (2013) Muhammad et al. (2019)	Bacq and Alt (2018)	Ye et al. (2020)

Note: ^a Hirschi and Fischer (2013) define work values to match Schwartz's (1992) personal value dimensions. Lechner et al. (2018) take Hirschi and Fischer (2013) as a reference and adopt a similar approach.

^b Kunttu et al. (2017) compare social entrepreneurial intentions with traditional start-up intentions.

As shown in Table 1, the majority of papers (15) focus on the intention either to start up a commercial venture or to become an entrepreneur in general. In turn, there are four studies specifically focusing on the social entrepreneurial intention (SEI). Finally, there are three papers that centre on the intention to perform other entrepreneurial behaviours. They include the internationalisation intention (Bolzani and Foo, 2018), the green EI (Ye, Zhou, Anwar, et al., 2020), and the intention to quit (Sihombing, 2018). These papers analysing alternative intentions are all very recent, which

indicates that the study of PVs is expanding, not only in quantity (number of studies) but also in scope.

Similarly, the theoretical approach used in each paper to define PVs differs notably (see Table 2). Overall, there are six papers focusing on work values, of which Farrington et al. (2011) and Geldhof et al. (2014), as mentioned above, jointly analyse PVs and EIs to explain behaviour.

Three of these papers focus on the relationship with general start-up intentions. Among these three, Hirschi and Fischer (2013) specifically merge the concept of work values with personal values to analyse the effect on EIs. Similarly, Lechner et al. (2018) also define work values as a reflection of PVs, with explicit reference to Schwartz's (1992) framework and to Hirschi and Fischer's (2013) paper. In both cases, significant gender differences are found. In contrast, Tipu and Ryan (2016) explore how work ethics affect the individuals' EIs. The sixth paper (Kunttu et al., 2017) compares the effect of work values on socially-oriented EIs and goals, relative to traditional EIs. They find altruism to be positively related to SEI (but not to EI), while EI is related to security (negatively) and to intrinsic reward (positively).

Additionally, there are other approaches to measuring personal values which are not specifically termed as work values, but remain relatively close. This is the case of self-actualisation and social-affiliation values (Watchravesringkan et al., 2013), empathy (Bacq and Alt, 2018), reasons/motives to start up (Muhammad et al., 2019), and altruistic values (Ye et al., 2020). Sihombing (2018), in turn, adopts Rokeach's (1973) approach to measuring PVs. She observes that instrumental values are not relevant in predicting the entrepreneurial attitude, whereas terminal values are positively related to this attitude. Finally, the remaining eleven papers use the Basic Human Values (BHV) theory (Schwartz, 1992) to conceptualise PVs, which renders this theory as the most common framework (more detailed results below).

Regarding the specific EI model, ten papers explicitly adopt Ajzen's (1991) Theory of Planned Behaviour (TPB), which is by far the most common framework for EI. Only one of these papers focuses on the SEI (Kruse et al., 2019), while the remaining nine papers use the TPB to analyse the general intention to start up a new business. The theoretical contribution by Fayolle et al. (2014) has been included here, together with one of the qualitative papers (Muhammad et al., 2019). The remaining papers adopting a TPB framework carry out a quantitative empirical analysis. In particular, there are five quantitative papers integrating Schwartz's (1992) BHV and Ajzen's (1991) TPB to measure general start-up intentions (Gorgievski et al., 2018; Hueso et al., 2020; Liñán et al., 2016; Schmidt and Tatarko, 2016; Yang et al., 2015), as discussed in greater detail in the following sub-section.

Other papers adopt very different approaches to model EI. In fact, a number of papers use an eclectic approach to defining this variable. They combine contributions from different frameworks to develop the hypotheses regarding the effect of PVs and other variables on EIs. This is the case of seven papers: Hirschi and Fischer (2013), Espiritu-Olmos and Sastre-Castillo (2015), Sastre-Castillo et al. (2015), Tipu and Ryan (2016), Kunttu et al. (2017), Fernandes et al. (2018), and Lechner et al. (2018). Geldhof et al. (2014) also use an eclectic framework to define EIs but, in this case, this variable is employed to predict behaviours.

Finally, there are four papers adopting other less commonly used approaches to define and model EI. Bacq and Alt (2018) employ a combined model of SEI (Mair and Noboa, 2006) to analyse the influence of empathy on this variable. Bolzani and Foo (2018) adopt a laddering theory (Reynolds and Gutman, 1988) to predict the internationalisation intention, and uncover five of Schwartz's basic values at the base of the internationalisation intention. Sihombing (2018) follows the value-attitude-behaviour hierarchy as defined by Homer and Kahle (1988) with a focus on the intention to quit as an entrepreneur. Finally, Ye et al. (2020) use the push-

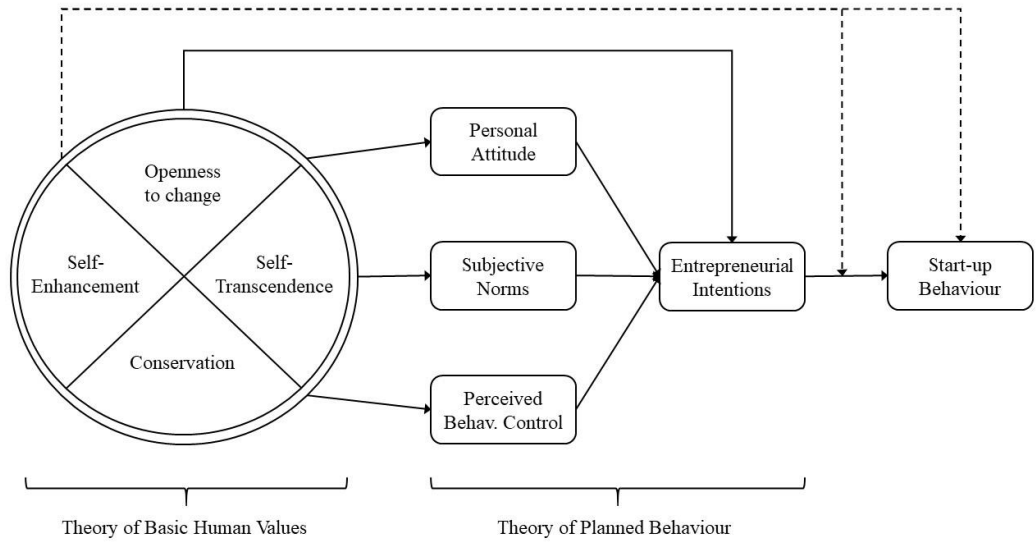
pull-mooring model (Moon, 1995) to predict the intention to switch to green entrepreneurship.

2.4.2. Integrative Conceptual Framework

Despite the considerable complexity and variability in the approaches found within these 22 papers, certain overarching patterns emerge that enable an integrative conceptual framework to be developed. The overwhelming majority of papers consider PVs as an antecedent of EIs that are either directly connected or mediated by other variables (e.g., Gorgievski et al., 2018; Hueso et al., 2020). Nevertheless, there are two contributions in which EIs and PVs are considered as independent variables jointly affecting actual behaviour (Farrington et al., 2011; Geldhof et al., 2014). This is in line with the possible mediating effect of PVs on the intention-behaviour relationship, suggested by Fayolle et al. (2014).

Given that the TPB (Ajzen, 1991) and the BHV (Schwartz, 1992) are the most commonly applied theories, and that their joint use is found in nearly one third of the papers (7 out of 22, six empirical and one theoretical), it seems appropriate to base the integrative framework thereon. In this respect, the first reflection is that PVs are considered as distant predictors of intention, through the mediation of motivational antecedents. Nevertheless, a number of papers test the direct relationship between PVs and EI. Liñán et al. (2016) is one of them using the BHV-TPB framework.

Figure 6: Integrative Conceptual Framework



Note: Solid lines represent relationships tested in the papers analysed. Dotted lines represent relationships yet to be tested.

Figure 6 presents the integrative conceptual framework. Solid lines indicate relationships that have been analysed in these 22 papers, while dotted lines represent relationships yet to be tested. In particular, as Fayolle et al. (2014) suggest, PVs may moderate the intention-action link. Similarly, Delanoë-Gueguen and Liñán (2019) find the security work motivation (very close to the PV of security) to moderate this relationship and also to exert an independent and direct negative effect on start-up behaviour.

The influence of each value dimension on the TPB variables has been independently analysed in these papers and consistent results are found. They are not presented in Figure 6 for reasons of clarity, but are instead summarised in Table 2, based on the six empirical papers that test the BHV-TPB approach. Five of these papers propose and test a partial or total mediation model (Gorgievski et al., 2018; Hueso et al., 2020; Kruse et al., 2019; Schmidt and Tatarko, 2016; Yang et al., 2015), and this is also the relationship proposed in the theoretical paper (Fayolle et al., 2014). The main results are described below, organised in terms of personal value dimensions.

Table 2: Influence of BHV dimensions on TPB variables

Personal value dimensions	TPB antecedents			Entrepren. intention
	Attitude to entrepren.	Subjective norms	Perceived behavioural control	
Self-enhancement	± (EI) + (SEI)	- (EI)	+ (EI, SEI)	+ (EI) - (SEI)
Openness to change	+ (EI, SEI)	+ (EI)	+ (EI, SEI)	+ (EI, SEI)
Self-Transcendence	± (EI) + (SEI)	+ (EI)	- (EI) + (SEI)	+ (SEI)
Conservation	- (EI)	+ (EI)	- (EI)	- (SEI)

Note: Based on the results from Gorgievski et al. (2018), Hueso et al. (2020), Kruse et al. (2019), Liñán et al. (2016), Schmidt and Tatarko (2016) and Yang et al. (2015).
 + = positive relationship; - = negative relationship; ± = conflicting results. EI = General entrepreneurial intention; SEI = Social entrepreneurial intention.

Within the self-enhancement value dimension (achievement and power values), the results for Liñán et al. (2016) indicate a direct positive relationship with EIs, even after controlling for the TPB antecedents. Yang et al. (2015), in turn, note mixed results for the indirect effect of these values through the entrepreneurial PA. Gorgievski et al. (2018) observe that self-enhancement values positively predict self-efficacy (a proxy for PBC), while they negatively affect SNs. In the case of SEIs, Kruse et al. (2019) point towards not only a positive indirect relationship between these values and the SEI through both PA and PBC, but also towards a negative direct relationship, whose direct and indirect effects cancel each other out. Related to this, although without applying the joint BHV-TPB framework, Bolzani and Foo (2018) find both self-enhancement values at the basis of the internationalisation decision. Similarly, Espiritu-Olmos and Sastre-Castillo (2015) also remark that self-enhancement positively relates to EIs; Sastre-Castillo et al. (2015) agree and also find it to be negatively related to a social orientation. Finally, both Hirschi and Fischer (2013) and Lechner et al. (2018) observe a positive relationship between self-enhancement-related work values and EI.

Regarding the case of openness to change values (self-direction and stimulation), the results are much clearer. Schmidt and Tatarko (2016) find a positive relationship between self-direction and all three motivational antecedents of EI. Gorgievski et al. (2018) replicate this finding for PA and PBC. Yang et al. (2015) confirm this result for the PA antecedent, while Liñán et al. (2016) corroborate a positive direct relationship between these values and EI.

In the case of SEIs, Kruse et al. (2019) also note that this value dimension relates positively and significantly to PA, PBC, and to SEIs directly. Additional support for this relationship may be found in those papers that do not combine TPB and BHV theories. In this way, Sastre-Castillo et al. (2015) observe a direct positive relationship with EI, but not with the social orientation. Bolzani and Foo (2018) also remark self-direction to be at the basis of the

internationalisation decision. Again, Hirschi and Fischer (2013) and Lechner et al. (2018) report a positive relationship between variety and autonomy work values (matching the openness to change dimension) and EIs.

The remaining value dimensions (self-transcendence and conservation) are more strongly associated with collectivistic values. In this respect, Yang et al. (2015) report a negative relationship of all the values in these dimensions (except for universalism) with the entrepreneurial PA. Similarly, Schmidt and Tatarko (2016) observe security (a conservation value) to negatively affect the PA. In turn, Hueso et al. (2020) report a more complex relationship, where all these values have a negative relationship with PA and PBC (although not always significant), while they all have a positive relationship with SNs (again, not always significant). Other papers (not combining TPB and BHV theories) find certain conflicting results, since conservation values are found to have a direct positive relationship with EI (Fernandes et al., 2018). Bolzani and Foo (2018) note security and benevolence values to be at the basis of the intention to internationalise. Finally, Hirschi and Fischer (2013) report that security and authority work values (matching the conservation dimension) negatively relate to EIs, while Lechner et al. (2018) observe security and social/interpersonal work values (close to the conservation and self-transcendence dimensions, respectively) to be associated with a lower EI.

It should be borne in mind that different results are found when the SEI is considered. In this case, Kruse et al. (2019) find self-transcendence to be positively related both to the antecedents of intention (PA and PBC) and also directly to the SEI itself. Conservation, in contrast, is not related to the antecedents, and has a negative influence on the SEI. This is supported by other research based on alternative theoretical models. Thus, Kunttu et al. (2017) note altruism (close to self-transcendence values) to be positively related to SEIs. Bacq and Alt (2018) report a similar positive result for empathy. In turn, the results from Sastre-Castillo et al. (2015)

support a positive relationship between self-transcendence and conservation values and a social entrepreneurial orientation.

2.5. Discussion

This systematic literature review has identified 22 articles that jointly examine the role of PVs and EIs in entrepreneurship. Although this is a recent area of research (all papers are from 2011 or later), it is growing rapidly. The review is timely in that it offers a comprehensive panoramic view of the accumulated knowledge to date and develops an integrative conceptual framework. A first conclusion to be drawn is that research to date overwhelmingly considers PVs as an antecedent in the formation of EIs, in accordance with the conceptualisation of personal values as basic guiding principles in life (Rokeach, 1973; Schwartz, 1992). Thus, they should be expected to play a role in making decisions regarding desirable and/or feasible courses of action (one of which being entrepreneurship).

The BHV-TPB is the most frequent combination of theories used. There are practically no alternative theoretical formulations that may compete in this respect. In the case of PVs, up to six papers analyse work values, but with no common underlying framework. In fact, two of these papers (Hirschi and Fischer, 2013; Lechner et al., 2018) base their work values on Schwartz's (1992) BHV theory. The results from the BHV-TPB-based research tend to be consistent, with few exceptions. Only in the case of the relationship between self-transcendence and self-enhancement values and PA does there seem to be clear conflict. Yang et al. (2015) find opposing relationships for each of the basic values in these dimensions. In turn, Hueso et al. (2020) observe a negative relationship between universalism and PA. There may be cultural elements underlying these differences. Previous research has shown that shared cultural values affect the individual's intention-

formation process (Jaén and Liñán, 2013; Liñán et al., 2016; Munir et al., 2019).

Another major source of difference is the specific intention under analysis. Kunttu et al. (2017) explicitly compare SEIs and (general) EIs. They remark that the work values predicting each of these intentions do indeed differ. Similarly, Kruse et al. (2019) use the BHV and TPB to explain the formation of SEI. Their results are most insightful when compared to similar models for general EI (Gorgievski et al., 2018; Hueso et al., 2020; Schmidt and Tatarko, 2016; Yang et al., 2015), (see Table II). For several relationships, the effect of PVs on the TPB variables appears to be consistent (e.g., openness to change values affecting any TPB variable), while for others a conflict is found (e.g., the influence of self-transcendence on PBC).

Chapter 3 - Theoretical Framework

The previous chapter analyses how the literature has considered the role of personal values in entrepreneurial behaviours. By far, most of the findings analysing personal values and entrepreneurial intention models are considering the Theory of Basic Human Values (BHV) proposed by Schwartz (1992) and the Theory of Planned Behaviour (TPB) developed by Ajzen (1991).

The purpose of this chapter, in turn, is to develop a research model and testable hypotheses to be empirically analysed. In this regard, following with the development of the research, along this chapter, the BHV and TPB frameworks are adopted as a reference to develop the research model.

In particular, we have decided to focus our analysis on the collectivistic PVs. That is, those PVs that are related with universalism, benevolence, tradition, security and conformity. Previous studies have analysed the specific role of individualistic values. However, very little research has focused on collectivistic personal values. Since most of the articles have analysed the individualistic tendency in entrepreneurial intentions, this scarcity of researches focuses on this thematic motivated us to conduct this analysis.

3.1. Introduction

As shown in the previous chapter, in contemporary research, intention models have frequently been employed in entrepreneurship studies. Findings back up our arguments, confirming that intention is considered as the most immediate and important variable for the prediction of the future entrepreneurs' behaviour (Adam and Fayolle, 2015). Even though, the literature on entrepreneurial intentions is extensive with multiple papers analysing entrepreneurial intention models (Liñán and Fayolle, 2015). However, much remains to be ascertained regarding the approach in which entrepreneurial intentions are formed. Therefore, the contemporary literature (Liñán and Fayolle, 2015; Schlaegel and Koenig, 2014) has called for more empirical studies to provide an explanatory understanding of the underlying mechanisms within the entrepreneurial process.

Personal values represent potentially relevant variables in this respect (Morales et al., 2019); within psychology research, they are important in explaining human actions (Bardi and Schwartz, 2003). Since these values have been regarded as one of the most significant drivers in guiding intentions and subsequent behaviour (Herek, 1986; Maio et al., 2001; Murray et al., 1996), personal values play a major role in entrepreneurship (Fayolle et al., 2014).

In this vein, the study of the individualistic like tendency is predominant. Indeed, much research has studied the individualistic personal values of entrepreneurs due to the reason that these values are relevant to entrepreneurial success, competitiveness, innovation and efficiency (Birch, 1981; Birch and MacCracken, 1983; Hayton, George and Zahra, 2002; Peterson, 1988; Reynolds and Freeman, 1986; Wagner and Moch, 1986). Yet, individuals may stress the importance of a variety of basic values (Schwartz, 1992). Despite the main interests in individualistic values of entrepreneurship researchers (Morales et al., 2019), collectivistic values are also

important as motivational goals and guiding principles for individuals.

In this respect, a specific research theme has focused on the moral responsibility and ethical behaviour of entrepreneurs (Amable, 2010; Anderson and Smith, 2007; Brenkert, 2009; Harris, Sapienza and Bowie, 2009; Scharff, 2016). It is argued that an emphasis on collectivistic values may see the entrepreneur influencing moral and ethical norms in new situations and contexts (Kaptein, 2017). This implies a greater consideration of the consequences for others, both for those in close relationships and for society in general. Following this concern, collectivistic values can encourage entrepreneurs to infuse their ventures with an element of sustainability, solidarity, business ethics, corporate social responsibility, gender equality and loyalty, among other factors (Barnett and Karson, 1987; Costa, Terracciano and McCrae, 2001; Hemingway, 2005; Shephard, 2008).

Thus, the collectivistic values of potential entrepreneurs are important for the definition of their identity as entrepreneurs and, consequently, their intention to start a venture. Nevertheless, there is still a paucity of research on how personal values, in general, influence the decision-making processes of potential entrepreneurs. One of the few studies carried out in this field is that of Yang et al. (2015), though their focus was solely on the influence of personal values on personal attitudes (PAs).

In this study, the role of collectivistic personal values in the formation of the entrepreneurial intention is investigated. According to Ajzen's (1991) theory of planned behaviour (TPB), entrepreneurial intention is developed from three motivational antecedents (see in previous chapter Figure 3). The influence of the collectivistic personal values on all three antecedents - PA, subjective norms (SNs), and perceived behavioural control (PBC) - is analysed.

In order to test how the influence of collectivistic values affect the individual's intention, an empirical analysis was conducted in two regions, from different countries (the United Kingdom and Spain), with these being clearly different in terms of history and culture. Nonetheless, they are both large, developed economies, exhibiting similar entrepreneurship rates. In 2017, 9.3% of the working-age population in the United Kingdom was expected to start a business within the next three years (Hart, Bonne, Levie et al, 2018). Despite the rate in Spain being lower, at 6.8% (Peña, Guerrero, González-Pernía et al., 2018), the two economies have relatively high rates of potential entrepreneurship, suggesting that creating a business is considered a valued career option. Furthermore, the two countries share similar characteristics in that they both enjoy innovation driven and mature economies (Liñán, Nabi and Krueger, 2013). These economies are shifting towards the service sector and catering for an increasingly more affluent population. As noted by Bosma, Acs, Autio et al. (2008), they are both focused on knowledge generation and the development of innovative, opportunity-seeking entrepreneurial activity.

Following this introduction, next subsection provides the theoretical framework, and our hypotheses regarding how collectivistic values affect the formation of the entrepreneurial intention are developed. Then, the methodology and results are presented in the next chapters, following with the discussion and conclusion, wherein a reflection upon these results is included.

3.2. Theoretical Assumptions

In this section, we review the literature on collectivistic personal values and entrepreneurial intentions. We then analyse the specific arguments leading to the hypotheses about conservation and self-transcendence values. Finally, our research model is presented.

3.2.1. Collectivistic personal values and the entrepreneurial intention

This dissertation is based on an integration of values and intention theories. The Theory of Human Values, developed by Schwartz (1992), stresses the importance of personal values in affecting decision and action. Values are defined as desirable goals serving as guiding principles in life (Schwartz, 1992; Schwartz and Bardi, 2001). These personal values orient decision-making and boost value-congruent behaviour (Bardi and Schwartz, 2003; De Dreu and Nauta, 2009; Schwartz, 2010, 2012). In this theory, it is assumed that values tend to be relatively stable over time (Bardi et al., 2009), and therefore, exert a long-lasting effect on motivation and intention (Morales et al., 2019; Yang et al., 2015).

Widely used in the taxonomies of values found in the literature, Schwartz's theory is deemed the most well developed (Yang et al., 2015). Schwartz's (1994) value theory is based on a circular structure made up of 10 different basic values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, conformity, tradition and security (a graphic representation of this theory is presented in Figure 2 in the previous chapter). These basic values may be grouped into four dimensions: self-enhancement, openness to change, self-transcendence and conservation. The first two value-dimensions are more closely related to an individualistic orientation (Konsky, Eguchi, Blue et al., 2000). That is, they tend to be accentuated by individuals who consider themselves more as unique human beings deserving attention and satisfaction. In contrast, conservation and self-transcendence are associated with a less individualistic or more collectivistic orientation (Konsky et al., 2000). These tend to be emphasised by people who largely consider themselves as part of a group.

This research is focused on those collectivistic values included in the conservation and self-transcendence dimensions. As such, we analyse the role of conformity, tradition and security (conservation), universalism and benevolence (self-transcendence). The conservation dimension underlines order, self-restriction, preservation of the past and resistance to change. In turn, the self-transcendence dimension captures the values that emphasise concern for the welfare and interests of others (Schwartz, 2012).

Finally, these collectivistic values are linked to entrepreneurial intentions. Since intentions are central to the entrepreneurship process, they represent the first step in a succession of decisions and actions leading to becoming an entrepreneur (Bird, 1988; Kautonen et al., 2015), so an entrepreneurial intention model is applied. Intentions depict the transformation of beliefs, perceptions and other exogenous factors into the outcome that immediately precedes the action itself (Ajzen, 2001). In short, intentions represent the most accurate proxy for the corresponding behaviour (Fayolle et al., 2014; Fishbein and Ajzen, 1975; Liñán and Chen, 2009; Miller, Bell, Palmer et al., 2009; Schwarz, Wdowiak, Almer-Jarz et al., 2009).

TPB, in particular, is the most commonly used framework in entrepreneurship research (Schlaegel and Koenig, 2014). It explains the intention to enact a behaviour as a result of the following three antecedents: PA towards this act, SNs and PBC. First, PA refers to the degree to which a person has a positive or negative evaluation, or appraisal, of entrepreneurial behaviour (Ajzen, 1991). Second, SNs denote the support expected from the people of reference (family, friends and so forth) if the individual decides to perform this behaviour, and third, PBC indicates the perceived ease or difficulty in undertaking entrepreneurial action. More positive perceptions of these antecedents lead to a higher level of entrepreneurial intentions (Lee, Wong, Der Foo et al., 2011).

Accordingly, TPB is the second pillar upon which our theoretical framework is built. According to TPB, other cognitive-level variables should affect intention indirectly, through its antecedents (Krueger, 2007). Personal values represent an example of such an indirect influence and, in particular, our focus centres on the values within the conservation and self-transcendence dimension.

3.2.2. The conservation dimension

The conservation dimension, proposed by Schwartz (1992), accentuates the personal values of tradition, conformity and security; individuals that emphasise these values tend to avoid situations of uncertainty and change. It could be argued that these individuals have a deeply rooted sociocultural orientation (Yang et al., 2015), tending to subordinate their own personal interests in favour of socially imposed expectations. Individuals prioritising the personal value of tradition attach high importance to respect, commitment and acceptance of customs related to culture or religion (Schwartz and Boehnke, 2004). Similarly, the assertion of conformity entails maintaining control over actions, inclinations and impulses that impose upon others. Violation of social norms or expectations is also avoided (Schwartz and Boehnke, 2004). In addition, the personal value of security implies the avoidance of risky situations or of those implying uncertainty and change in the close environment (Yang et al., 2015).

The entrepreneur is identified with continuously challenging the status quo (Shane and Venkataraman, 2000) and the rupture of social expectations (De Clercq and Voronov, 2009). Such individuals fail to accord with the values of the conservation dimension. Likewise, individuals who emphasise the conservation dimension are reluctant to perform actions that imply breaking with customs and tradition (Yang et al., 2015). Therefore, this information indicates that individuals highlighting conservation

values might exhibit an unfavourable PA towards entrepreneurship. Thus, the following hypothesis can be established:

H1a. Individuals accentuating conservation values (conformity, tradition and security) will exhibit a less favourable PA towards entrepreneurship.

Individuals who emphasise the conservation dimension attach great importance to the opinion of key referents (parents, teachers, friends, etc.) and to the surrounding environment (religion, customs, traditions and so forth; Schwartz and Boehnke, 2004). Hockerts (2017) affirms that a feeling of belonging to this close environment generates expectations of a relationship of reciprocity. As such, among the members of the closest groups and significant members therein, a ‘moral obligation’ of loyalty and support for group decisions is evident (Mair and Noboa, 2006). Therefore, just as individuals feel compelled to support the other members of their closest group of referents, so they would expect mutual support for their decisions. In this way, this ‘moral obligation’ of loyalty and reciprocity with close referent people would cause individuals to expect support when they decide to create a firm. Thus, we propose the following hypothesis:

H1b. Individuals accentuating conservation values (conformity, tradition and security) will exhibit more positive SNs regarding entrepreneurship.

Generally, individuals take one of two approaches to their decision-making process (Crowe and Higgins, 1997), by adopting one of the following regulatory foci: promotion or prevention. On the one hand, under a promotion regulatory focus, the individual is concerned with the advancement, growth, accomplishments, hopes and aspirations that can be attained by performing a given behaviour. On the other, the prevention regulatory focus is concerned with safety, responsibilities and obligations, in an effort to avert negative and/or uncertain outcomes.

For the individual prioritising the conservation dimension, it is harmony and stability of society, relationships and of the self that constitute crucial factors (Schwartz, 1994). In this respect, security is associated with an emphasis on ‘avoiding risky situations’ and ‘avoiding everything that might go wrong’. Furthermore, tradition and conformity imply respect for traditions and social norms (Schwartz, 1994). The perspective of creating a venture means making decisions and behaving in ways that break with traditions and social norms. Thus, for people who accentuate conservation values the process of business creation is a potential source of ‘social sanction’.

Individuals accentuating the conservation dimension are likely to follow a prevention regulatory focus rather than one of promotion. Consequently, they should be more conscious regarding the inherent difficulties that starting up a company involves (Brockner, Higgins and Low, 2004; Higgins, 1998). These individuals are more likely to see new venture creation as a difficult and complex process. Accordingly, individuals emphasising conservation values may feel less capable of successfully starting up a firm. These arguments lead us to propose the following hypothesis:

H1c. Individuals accentuating conservation values (conformity, tradition and security) will exhibit a less favourable PBC.

3.2.3. The self-transcendence dimension

The dimension of self-transcendence encompasses the personal values of benevolence and universalism (Schwartz, 1992). Accentuating the benevolence value indicates that an individual tries to help other members of the closest group (relatives, ethnic group, close friends and so on) and contributes to the welfare within the family and other primary groups (Schwartz, 2012). Subjects

highlighting the personal value of universalism stress the importance of tolerance, social justice and equality (Schwartz, 1992).

Notwithstanding, entrepreneurship is strongly characterised by an ‘egoistic passion’ (Locke and Baum, 2007), which opposes the spirit of altruism, respect, tolerance and the protection of the welfare of others (Hirschi and Fischer, 2013)⁶. Self-transcendent individuals are expected to appreciate the contribution to general social well-being as a major element valuing the rewards of time spent with their family and significant others (Schwartz, 1992). In contrast, starting a new venture implies a high commitment in terms of effort, resources and time; so, for those emphasising the self-transcendence value dimension, entrepreneurship represents a large opportunity cost (Yang et al., 2015). These individuals may have a less favourable PA towards entrepreneurship; accordingly, the following hypothesis is proposed:

H2a. Individuals accentuating self-transcendence values (benevolence and universalism) will exhibit a less favourable PA towards entrepreneurship.

Regarding the SNs, self-transcendent individuals considering the possibility of creating a new venture have, among other motivations, the notion of helping others, both within the closest group (benevolence) and in broader society (universalism) (Schwartz, 1992). For this reason, individuals considering new venture creation as a way to help others expect those around them to share that vision of entrepreneurship. As such, these potential entrepreneurs expect support from those who benefit from the success of the new firm. Accordingly, the following hypothesis is proposed:

⁶ Social entrepreneurship could be a possible exception here. However, our argument refers to entrepreneurship in general.

H2b. Individuals accentuating self-transcendence values (benevolence and universalism) will exhibit more positive SNs regarding entrepreneurship.

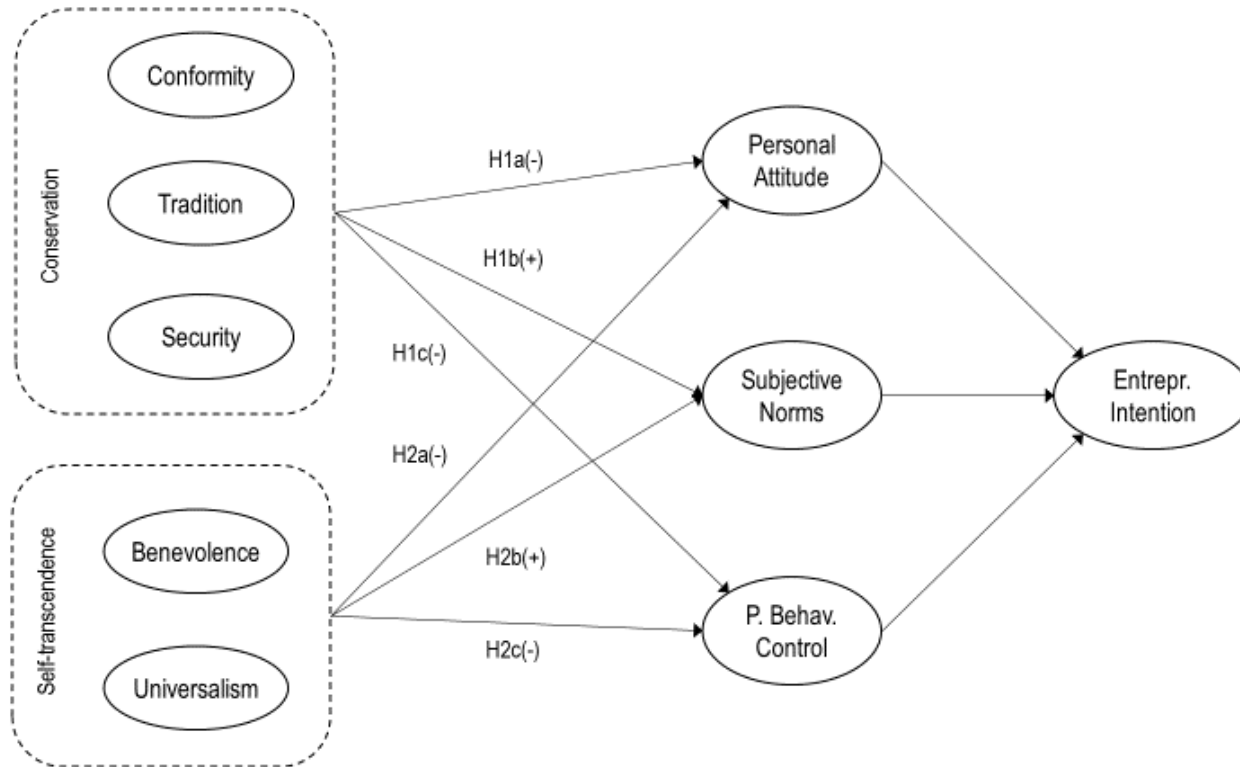
Finally, stressing self-transcendental personal values implies recognition of the importance of contributing positively to the improvement of the close environment (Holland and Shepherd, 2013). This concern, regarding improving the environment and helping others, might generate a burden in the form of greater responsibility. These individuals should be more aware of the possible effects of their behaviour on those close to them, on society in general and on the natural environment. This represents additional variables for consideration in the eventual process of venture creation. By taking these variables into account, the business venture process represents a more complex and difficult target to achieve as such, the individual might perceive a lower level of behavioural control. Accordingly, the following hypothesis is formulated:

H2c. Individuals accentuating self-transcendence values (benevolence and universalism) will exhibit a less favourable PBC.

3.2.4. Research Model

In order to have a better overview of the proposed research model, Figure 7 presents a summary of the research model and the suggested hypotheses. This represents the conceptual framework in which the motivational antecedents mediate the relationship of the conservation and self-transcendence dimension values, on the one hand, and the entrepreneurial intention, on the other.

Figure 7: Collectivistic personal values in the formation of entrepreneurial intentions



Chapter 4 – Methodology

The previous chapter analyses how hypotheses and information are configured. Prior Figure 7 shows an overview of the ideas behind the proposed arguments. Along this chapter, to gain a better comprehension of the theoretical assumptions, we describe the methodology used to develop the quantitative analysis that will serve to test the hypotheses developed above about the relationship from the collectivistic personal values and the formation of entrepreneurial intentions. After the description of the sample, we define the measures used and the type of data analysis performed.

4.1. Sample

This empirical research introduces a cross-country study based on survey data collected in two different regions: Hampshire in the United Kingdom and Catalonia in Spain; the two regions share similar economic and social conditions. In the United Kingdom, the data come from a local university in the county of Hampshire, while in the Spanish subsample, it originates from several universities in the Catalanian region. Information of a more descriptive nature is presented in Table 3.

Table 3: Descriptive analysis

Descriptive Statistics	UK (N=200)		Spain (N=213)		Both (N=413)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Age: (years)	25.70	4.081	26.89	3.957	26.32	4.056
Gender: Female=0; Male=1	0.49	0.501	0.43	0.497	0.46	0.499
Entrepreneurship centre (yes=1; no=0)	0.08	0.264	0.12	0.327	0.10	0.299
Ever self-employed? (yes=1; no=0)	0.29	0.453	0.14	0.353	0.21	0.410
Schooling level of the Father*	3.07	0.980	2.54	1.304	2.80	1.186
Schooling level of the Mother*	3.04	1.002	2.62	1.303	2.82	1.183
Family entrepreneur (yes=1; no=0)	0.65	0.480	0.62	0.486	0.63	0.483
Socio-Economic group **	2.85	0.825	2.99	0.682	2.92	0.756

Note: * 1 = Primary education; 2 = Secondary education; 3 = Vocational training; 4 = University; 5 = Other;

** 1 = Lower; 2 = Lower-middle; 3 = Middle; 4 = Upper-middle; 5 = Upper

Given that young adults in the 25- to 35-year age range with a higher level of education consistently exhibit the highest entrepreneurship participation rates (Singer et al., 2018), university students constitute our sample. Trained to experiment with their ideas in real-life situations, students learn and adapt them as they leverage who and what they know to create valuable opportunities (Singer et al., 2018).

Questionnaires were distributed to students who attended business-related courses, the British and Spanish samples presented similar characteristics. The target sample was made up of students enrolled in undergraduate and master programmes, with an initial of 479 responses obtained. There were 61 respondents above the age of 35, with these cases removed from the analysis due to their motivations and experience likely differing from those in the younger, target group. In addition, five questionnaires were excluded due to their high level of missing data. The final sample

included 413 usable questionnaires with 200 questionnaires collected in the United Kingdom and 213 obtained from Spain.

As shown in Table 3, the general characteristics of the two subsamples were similar. The most notable differences related to the self-employment experience, which was substantially higher for the UK respondents (29% of UK respondents had this experience vs 14% in Spain). In the same vein, the UK respondents reported a slightly higher educational level than their parents. With regard to parents with university qualifications, the percentage was similar (approximately 30%) in the two subsamples. In Spain, it was more common that parents were found to have only primary education (around 30% of the respondents, whereas the corresponding percentage was less than 5% in the United Kingdom), with the same trend regarding secondary studies or vocational training (only 16%–19% of respondents in Spain reported a parent in one of these categories vs 25%–30% for their UK counterparts).

4.2. Measures

The dependent variable is the entrepreneurial intention, which was measured through the well-established Entrepreneurial Intention Questionnaire⁷ (EIQ; Liñán and Chen, 2009; Liñán et al., 2016). The scale was made up of five statements, with the response range varying from 0 to 6, where 0 meant ‘Totally disagree’, while 6 signified ‘Totally agree’. As an example, one item was ‘I am willing to make any effort to become an entrepreneur’. One item was intentionally reversed to prevent acquiescence bias.

The EIQ was also employed to measure the TPB antecedent variables: PA, SNs and PBC. Likert-type scales with a response range of 0 to 6 were also applied here, where 0 was ‘not at all

⁷ See the Questionnaire attached in the Appendix

desirable' or 'totally disagree' and 6 indicated 'totally desirable' or 'totally agree'. For the PA, both the desirability of six specific outcomes and the expectation that these outcomes could be met through entrepreneurship were assessed. Example items for these outcomes include 'starting a new business would involve being creative and innovative' and 'to what extent is being creative and innovative desirable for you in general?' These responses were then multiplied to obtain a valuation of entrepreneurship.

Similarly, the SNs measure was obtained by multiplying the expected support from significant referent people (immediate family, close friends and colleagues) by the motivation to comply with their opinions. Example items for this scale include 'to what extent would your close friends agree if you decided to start a venture?' and 'how do you value the opinion of your close friends in this regard?' In the case of PBC, a Likert-type scale with six statements was used, with responses ranging from 0 ('totally ineffective') to 6 ('fully effective'). An example item for this scale would be 'to what extent would you be able to effectively negotiate and maintain favourable relationships with potential investors and banks?'

Personal values were measured using Schwartz's Portrait Value Questionnaire (PVQ) (Schwartz, Melech, Lehmann et al., 2001). The PVQ measures value priorities and is a scale that comprises 40 statements. The statements describe a person and ask the respondent to state the extent to which that person is similar to her or him. The response range varies from 0 ('not at all like me') to 5 ('very much like me'). An example of these items is, 'Forgiving people who have hurt her or him is important to her or him. (S)he tries to see what is good in them and not to hold a grudge'. The PVQ measures all 10 personal values as proposed by Schwartz (1992). Specifically, a total of 23 items correspond to the formation of the collectivistic personal values composing the self-transcendence and conservation dimensions and are grouped as

follows: conformity (four items), tradition (four items), security (five items), benevolence (four items) and universalism (six items).

Two dummy variables were included. The country dummy was coded as 1 for respondents in the United Kingdom and 0 for those in Spain. This variable would control for any possible country differences in the level of any of the study variables. The level of individualism was also controlled for since the overall Schwartz value structure includes individualistic values, together with collectivistic values (Schwartz, 1992, 1994, 2010, 2012). To compute this variable, the mean of all individualistic values was first calculated for each respondent, with this new variable then dichotomised as either 1 (for respondents with individualism levels higher than the mean) or 0 (for respondents with individualism levels lower than or equal to the mean).

Despite the indication by Maxwell and Delaney (1993) that dichotomising continuous variables may be problematic, dichotomisation is carried out here for the individualism variable, given the existence of collinearity. Schwartz, Cieciuch, Vecchione et al. (2012) reported the existence of frequent problems of high correlation and multicollinearity between the 10 basic values, particularly when a majority thereof is included together in the analysis. As explained by Falk and Miller (1992), multicollinearity in structural equation modelling is likely to lead to changes in the sign of coefficients, and to a reduction in significance levels⁸.

In addition, age (in years) and gender (1 = man; 0 = woman) were included as the controls on the TPB antecedents and the entrepreneurial intention. Both age (Bönte, Falck and Heblich, 2009; Thorgren, Sirén, Nordström et al., 2016) and gender (Hechavarría, Terjesen, Ingram et., 2017; Klyver, Nielsen and Evald, 2013; Murnieks, Cardon and Haynie, 2020; Shinnar et al.,

⁸ The analysis was carried out with the continuous individualist-value dummy variable, but strong collinearity was present. For this reason, a dichotomic individualistic dummy variable had to be used.

2012, 2018) have been demonstrated as being substantial predictors of entrepreneurial intent and action, particularly in the student samples (Shirokova, Osiyevskyy and Bogatyreva, 2016; Sieger and Monsen, 2015).

4.3. Data analysis

Structural equation modelling (SEM) was employed to test the hypotheses. This modelling enables the simultaneous examination of the relationships between measured variables and latent variables (Gefen, Straub and Boudreau, 2000; Hair, Hult, Ringle et al., 2017), and is most suitable when our model specification includes several dependent and exogenous variables, implying the need to estimate several regression equations simultaneously (Hair et al., 2017). More specifically, a partial least squares SEM (PLS-SEM or PLS path modelling) was applied. When the aim involves the development of new theories and exploratory research, then this statistical technique is more suitable than covariance-based SEM techniques (such as 'Linear Structural Relations' (LISREL; Gefen et al., 2000; Hair et al., 2017). As indicated by Sanchez-Franco and Roldan (2005), PLS analysis provides results for both the measurement model (reliability and validity of indicators) and the structural model (hypothesised relationships). SmartPLS (v. 3.2.6) software was applied in the analysis.

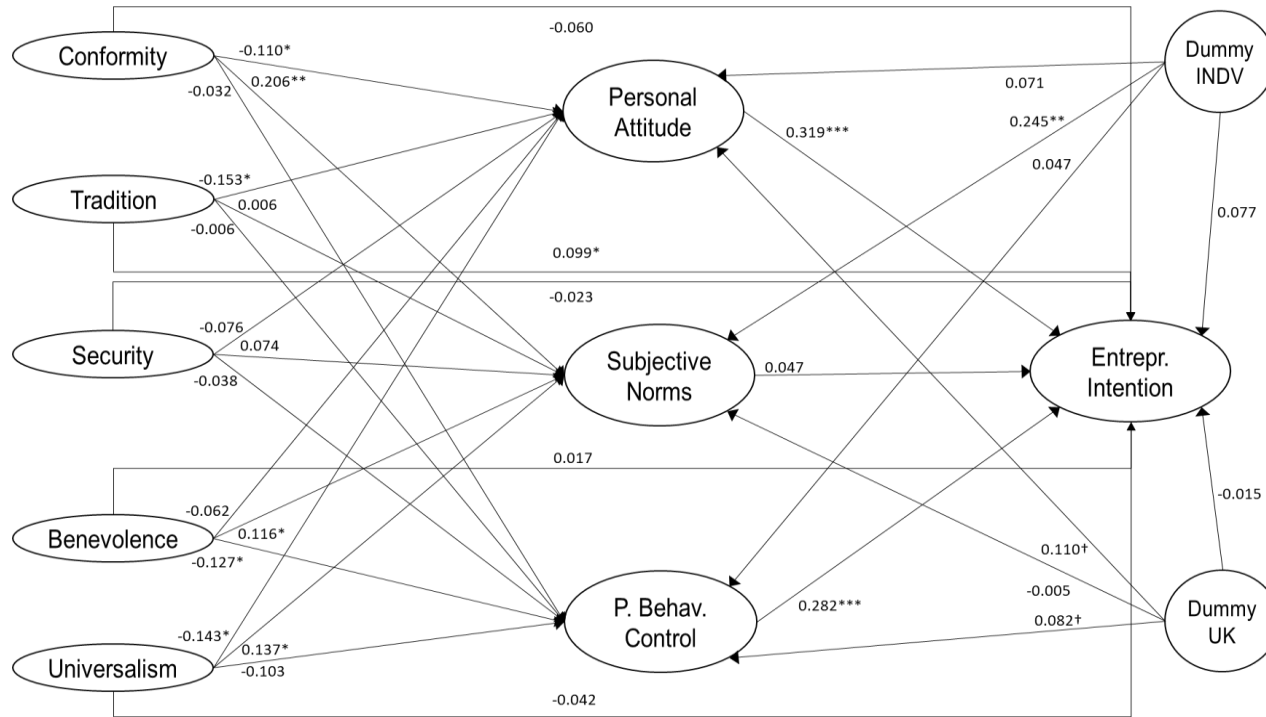
Chapter 5 – Results

This chapter presents the results that the empirical research has obtained. In this sense, we offer the results of the structural model as well as the multigroup analyses performed to better integrated the relationship of these personal values and the formation of entrepreneurial intentions.

5.1. Measurement Model

The proposed model (Figure 7) was run for the full sample, including the country and individualism control variables, with the results presented in Figure 8. The PA construct was defined as formative, since the specific motivations to become an entrepreneur had not to correlate with each other, and the aggregate attitude was formed as the summative evaluation of each of the motives (Hair et al., 2017). All the remaining constructs were measured as reflective, and in the case of the formative construct, meaningful and significant weights indicated sufficient reliability.

Figure 8: Results of the structural model with both individualism and country dummies



Significance levels: † p<0.1; * p<0.05; ** p<0.01; *** p<0.001

The measurement model was verified for the full sample following the standard practice in the field (Hair et al., 2017). The reversed item in the entrepreneurial intention scale was dropped due to its low loading. Similarly, the second item (pa2) in the PA construct was eliminated, since the weight was negative and non-significant. The detailed results for the measurement model are reported in Table A2 in Appendix. All the indicators in the remaining reflective constructs had loadings above the usual 0.7 threshold. In addition, reliability was satisfactory (both Cronbach's alpha and composite reliability were above 0.7), as was construct validity (average variance extracted (AVE), above 0.5). Discriminant validity was assessed through both the Fornell-Larcker criterion and the heterotrait-monotrait ratio, and was satisfactory for all the indicators in each construct.

5.2. Structural model

Once measurement validity was confirmed, the results from the structural model were analysed in order to test our hypotheses. Table 4 presents the path coefficients and significance levels for the full sample, and for each of the national subsamples. Table A3 in Appendix reports the descriptive statistics and correlations between the latent variables in the model, and in this respect, the mean entrepreneurial intention in our sample is 3.33 (on a scale from 0 to 6), meaning the respondents report a slightly positive intention level (the mean is above the mid-point 3 in the scale).

In addition, each of our country subsamples has been compared with several related measures in order to crosscheck its representativeness. In particular, the GUESSS survey reports entrepreneurial intention levels for samples of university students in different countries (Sieger, Fueglistaller, Zellweger et al., 2018). The levels for England (although not the United Kingdom) and

Spain are 2.21 and 2.51, respectively.³ These levels are lower than those in our sample (3.56 and 3.13, respectively), but this may possibly be explained by the higher mean age of the GUESSS respondents (37.0 and 28.7 years, respectively, compared with that of approximately 26 years in our sample).

The model in Figure 8 includes the two dummy variables. The UK respondents exhibit PA and PBC that are marginally more positive than is the case for their Spanish counterparts. As per the other control variables, age is also positively related to PA and PBC. Meanwhile, gender is marginally significantly related to SNs and EI, and men, in particular, exhibit marginally higher intentions, whereas women expect to receive stronger support from referent others.

The results for the individualistic-value dummy show that individualism is positively related to SNs. This means that respondents who accentuate individualistic values tend to expect stronger support from their people of reference. The relationships to PA, PBC and EI are also positive, but not significant, and once the level of individualism is controlled for, the distinctive influence of collectivistic values can then be analysed.

Regarding the values in the conservation dimension, negative relationships with PA (H1a) and PBC (H1c) were expected. In the first case, the path coefficients were negative for all three values, of which two were significant (conformity-PA = -0.110 , $p < 0.05$; tradition-PA = -0.153 , $p < 0.05$), while the third value is not significant (security-PA = -0.076). Thus, partial support for H1a was found. Regarding PBC, the coefficients were negative for all three values, although not significant. Therefore, no support was found for H1c. Finally, regarding H1b (the relationship of conservation values with SNs), Figure 8 provided some weak support for this hypothesis, since the conformity-SN coefficient was positive and significant (0.206 , $p < 0.01$), while the security-SN (0.074) and the tradition-SN (0.006) were positive but not significant.

Table 4: Path coefficients for the multigroup analysis

	FULL SAMPLE		SPAIN		UK		SPAIN - UK
	Path coeff.	S. D.	Path coeff.	S. D.	Path coeff.	S. D.	Path Differ
D.INDIV->PA	0.077	0.072	-0.040	0.112	0.219	0.101	0.259 *
D.INDIV->SNs	0.244 **	0.073	0.137	0.104	0.356 **	0.096	0.220 †
D.INDIV->PBC	0.054	0.079	-0.169	0.114	0.250	0.100	0.418 **
D.INDIV->E.I.	0.076	0.060	0.046	0.088	0.054	0.083	0.007
Conformity -> PA	-0.111 *	0.056	-0.093	0.100	-0.111	0.087	0.018
Conformity -> SNs	0.206 **	0.070	0.092	0.100	0.341 **	0.097	0.249 *
Conformity->PBC	-0.034	0.057	-0.061	0.091	0.006	0.082	0.067
Conformity -> E.I.	-0.060	0.054	0.016	0.070	-0.110	0.083	0.126
Tradition -> PA	-0.163 **	0.061	-0.150	0.104	-0.094	0.089	0.056
Tradition -> SNs	0.006	0.055	-0.034	0.084	0.082	0.078	0.116
Tradition -> PBC	-0.016	0.060	-0.065	0.081	0.087	0.083	0.153 †
Tradition -> E.I.	0.100 *	0.044	0.047	0.059	0.145	0.066	0.099
Security -> PA	-0.056	0.062	-0.136	0.096	-0.021	0.090	0.115
Security -> SNs	0.073	0.062	0.017	0.086	0.169	0.090	0.152
Security -> PBC	-0.026	0.066	-0.090	0.098	0.000	0.087	0.090
Security -> E.I.	-0.027	0.047	-0.041	0.070	-0.020	0.066	0.021
Benev. -> PA	-0.082	0.056	-0.085	0.092	-0.062	0.076	0.022
Benev. -> SNs	0.116 *	0.053	0.103	0.078	0.127	0.073	0.024
Benev. -> PBC	-0.138 *	0.064	-0.211 *	0.094	-0.026	0.073	0.185 †
Benev. -> E.I.	0.021	0.049	0.058	0.066	-0.012	0.066	0.070
Univers. -> PA	-0.167 **	0.064	-0.230 *	0.104	-0.062	0.089	0.167
Univers. -> SNs	0.138 *	0.069	0.053	0.095	0.229	0.095	0.176 †
Univers. -> PBC	-0.115 †	0.063	-0.230 *	0.092	0.023	0.077	0.253 *
Univers. -> E.I.	-0.037	0.052	-0.066	0.081	-0.024	0.066	0.042
PA -> E.I.	0.320 ***	0.052	0.350 ***	0.086	0.331 **	0.070	0.019
SNs -> E.I.	0.046	0.043	0.055	0.069	0.039	0.059	0.016
PBC -> E.I.	0.282 ***	0.050	0.248 **	0.074	0.332 **	0.067	0.084

Significance levels: † p<0.1; * p<0.05; ** p<0.01; *** p<0.001

With the focus on H2, regarding self-transcendence values and intention antecedents, clear support for hypotheses H2b was found, since both benevolence-SN (0.116, $p < 0.05$) and universalism-SN (0.137, $p < 0.05$) were positive and significant, as expected. The negative relationships from benevolence and universalism to PA (H2a) and PBC (H2c) were also partially supported. In the case of PA, both path coefficients were negative, although only one was significant (benevolence-PA = -0.062 ; not significant; universalism-PA = -0.143 ; $p < 0.05$). For PBC, both coefficients were again negative, but only one was significant (benevolence-PBC = -0.127 ; $p < 0.05$; universalism-PBC = -0.103 ; not significant). Hence, overall, partial support was found for H2a and H2c.

Figure 8 also shows the path coefficients from the antecedents of intention to the entrepreneurial intention itself. As may be seen, they are fairly robust, with PA and PBC exhibiting positive and significant relationships of a similar size, while for SNs the relationship (although positive) is nonsignificant. These results are consistent with previous studies (Autio, Keely, Klofsten et al., 2001; Krueger et al., 2000; Liñán and Chen, 2009).

5.3. Multigroup analysis

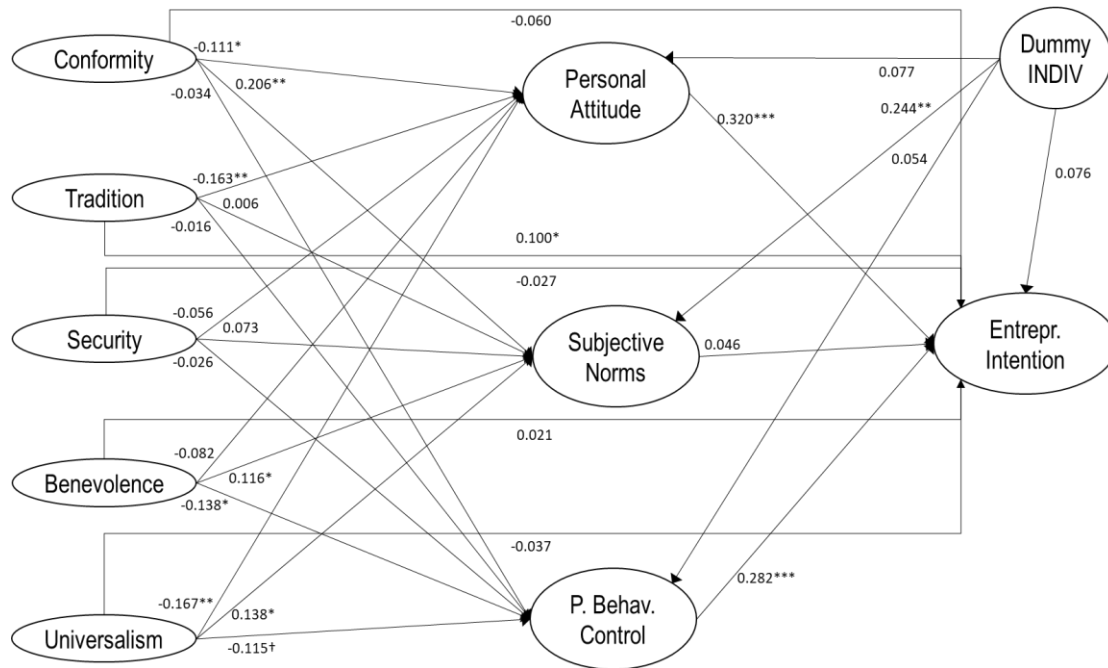
Finally, as a robustness check, a multigroup analysis was performed in order to compare the path coefficients for the Spanish and the UK subsamples. To this end, the country dummy had to be dropped. The individualist dummy variable was maintained as a control, as were age and gender. The results for the full sample are presented in Figure 9, while the correlations between the latent variables are included in Tables A4 and A5 in Appendix. As may be easily observed, these results are essentially the same as in Figure 8, with the only notable difference found in the path coefficient from universalism to PBC, which is now marginally significant ($\beta = -0.115$, $p < 0.1$). For the sake of simplicity, the coefficients for age

and gender are not shown, although they remain the same as in the previous model.

The path coefficients and significance levels for the multigroup analysis are presented in Table 4. Only four paths are significantly different in each sample, and in four other paths the difference is marginally significant. The effect of individualism on the TPB antecedents is stronger in the United Kingdom for PBC ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.418$; $p < 0.01$), for PA ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.259$, $p < 0.05$), and marginally for SNs ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.220$, $p < 0.1$). Clearly, higher individualistic personal values are associated with more positive antecedents of intention in the United Kingdom, but not with those in Spain.

When the focus is placed on the hypothesised relationships, the differences can be observed as concentrated on the relationship between certain collectivistic values and both SNs and PBC. In the case of SNs, the path from conformity is more positive ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.249$; $p < 0.05$) in the United Kingdom, as is marginally so for universalism ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.176$; $p < 0.1$). In turn, in the case of PBC, the path from universalism is negative in Spain but positive in the United Kingdom ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.253$; $p < 0.05$). There are also marginally significant differences for tradition-PBC ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.153$; $p < 0.1$) and benevolence-PBC ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.185$; $p < 0.1$). Overall, the interpretation of these differences is that collectivistic values are more strongly related to higher SNs in the UK, whereas in Spain, they are more closely related to lower PBC (in particular, the self-transcendence values).

Figure 9: Results of the structural model with individualism dummy



Significance levels: † p<0.1; * p<0.05; ** p<0.01; *** p<0.001

In each subsample, the results are consistent with the full model presented in section ‘Structural model’ above, although fewer path coefficients are significant, which is probably due to the smaller sample sizes. The first set of hypotheses relates to conservation values (conformity, tradition and security) and their relationship with TPB antecedents. In the case of H1a, all the coefficients are negative, as expected, but none are significant. For H1b, five out of six coefficients are positive, as expected (the exception being tradition-SNSpain = -0.034 , not significant) and, in the UK sample, two of the coefficients are either significant (conformity-SNUK = 0.341 , $p < 0.001$) or marginally so (security-SNUK = 0.169 , $p < 0.1$). As per H1c, the three path coefficients for Spain are negative, while the coefficients for the United Kingdom are positive, although none are significant.

The second set of hypotheses concerns the influence of self-transcendence values (benevolence and universalism) on the TPB antecedents. Regarding PA (H2a), the coefficients are negative for both personal values in both subsamples, but only one coefficient is significant (universalism-PASpain = -0.230 , $p < 0.05$). In the case of PBC (H2c), the coefficients are negative and significant for the Spanish subsample (benevolence-PBCSpain = -0.211 , $p < 0.05$; universalism-PBCSpain = -0.230 , $p < 0.05$), but they are non-significant for the UK subsample. Finally, with respect to H2b, the coefficients are positive in both subsamples, though only significant for the United Kingdom. The path from benevolence is marginally significant (benevolence-SNUK = 0.127 , $p < 0.1$), whereas the path from universalism is significant (universalism-SNUK = 0.229 , $p < 0.05$).

Chapter 6 - Discussion

In this chapter we discuss both the theoretical implications and future research lines that may be open from the systematic literature review, and also the main findings from the empirical analysis. This chapter serves to better comprehend the final recommendations that this dissertation has produced and which are presented in the next chapter.

6.1. Implications and Future Research Opportunities

Several implications for academic research may be derived from this dissertation. As a relatively new area of research, there are substantial knowledge gaps yet to be filled. The analysis from the SLR provides a basic framework from which new research lines may be identified. The most relevant research questions emerging from this SLR are summarised in Table 5. However, this is not to be taken as an exhaustive list, since many additional questions may be posed.

Table 5: Knowledge gaps and future research opportunities

Knowledge gaps	Research opportunities
Value dimensions vs. basic human values	<ul style="list-style-type: none"> • Role of individual values • Specific combinations of basic values
Single dimensions vs. complete value-circumplex	<ul style="list-style-type: none"> • Role of individual dimensions • Combinations of two adjacent dimensions • Combinations of opposing dimensions • Cancelling out effects • Direct and indirect effects of value dimensions
Effects on different types of intentions	<ul style="list-style-type: none"> • Social EIs vs. general EIs • Sustainable EIs • Small life-style venture vs. scalable start-up • High-tech vs. traditional craft venture • Intention to internationalize, to grow, to innovate, or to quit
Theoretical frameworks	<ul style="list-style-type: none"> • TPB vs. competing intention models (e.g., entrepreneurial event model, social cognitive career theory ...) • BHV vs. alternative value theories (e.g., work values ...)
Different samples	<ul style="list-style-type: none"> • Representativeness of student samples • Young vs. older adults • Native vs. immigrants
Context characteristics	<ul style="list-style-type: none"> • Cultural values • Life stages • Family or personal circumstances
PVs in entrepreneurship education	<ul style="list-style-type: none"> • Malleability of PVs • Design of education interventions to affect PVs • Evaluation of entrepreneurship education • PVs and learning • PVs and entrepreneurial identity

With few exceptions (Fernandes et al., 2018; Yang et al., 2015), research tends to group the basic human values into four value dimensions. This may increase consistency and reliability of the results, but possibly at the expense of losing detailed relationships. In this vein, some interesting questions to investigate may be the following. Are certain individual basic values relevant in themselves

to explain EIs and subsequently behaviour? Or are there specific combinations of basic values that are more promising in this respect? In particular, hedonism (seeking satisfaction and pleasure) is frequently ignored (since it is not included in the four value dimensions). Neither Fernandes et al. (2018) nor Yang et al. (2015) find any effect of hedonism on intentions. Nevertheless, the combination of hedonism with additional basic values might be relevant.

The same reflections may be applied to the four value dimensions. Is a high level of openness to change sufficient to develop the entrepreneurial intention? Or is this the case for self-enhancement? Or are high levels of both individualistic-like dimensions necessary? Much research is needed to fully understand the roles of each dimension in explaining the development of EIs and action. Adjacent dimensions may reinforce each other, as could be the case of openness to change and self-enhancement for general EI (Liñán et al., 2016), or that of openness to change and self-transcendence for social EI (Kruse et al., 2019). Additionally, opposing dimensions may cancel each other out, and hence a high level of one dimension may be insufficient if the opposing dimension is also prioritized. The indirect effects of value dimensions on EI, through the TPB antecedents, also deserve attention. Hueso et al. (2020) and Gorgievski et al. (2018) find certain dimensions to affect one antecedent positively and another negatively. Predicting the aggregate effect of these dimensions on EIs would be complex, and even if no such total effect is found, this does not necessarily mean that the value dimensions are irrelevant.

The intention to start up a (general) venture is by far the most common intention analysed, with the TPB (Ajzen, 1991) as the predominant theoretical framework. Nevertheless, several papers consider alternative intentions, such as social entrepreneurship (Bacq and Alt, 2018; Kruse et al., 2019; Kunttu et al., 2017; Sastre-Castillo et al., 2015), internationalisation (Bolzani and Foo, 2018), green entrepreneurship (Ye et al., 2020), and quitting (Sihombing,

2018) intentions. In this respect, Table 2, which compares SEI vs. EI, is based on only a few studies. There are still several relationships for which no comparison is yet available. Much more work is needed to confirm or refute these results. Additionally, the role of PVs may differ depending on which specific intention (to perform a certain behaviour) is under consideration. Therefore, the potential entrepreneur's personal-value structure may have substantial implications for the type of venture being created and its future evolution.

The use of alternative theoretical frameworks should also be explored. A number of competing intention models exist, such as the entrepreneurial event model. However, Schlaegel and Koenig (2014) find a substantial overlap between this model and the TPB. Another interesting avenue for further research could involve other such theories. Nevertheless, this research should be able to demonstrate an improvement over the TPB in order to be of any value. In the case of PVs, BHV is the most commonly used framework for their conceptualisation, either directly or indirectly (Hirschi and Fischer, 2013; Lechner et al., 2018).

The vast majority of the papers analysed use student samples. There is considerable debate regarding the representativeness of these samples. The comparison of these results with those from comparable studies using alternative samples of adults is therefore of major interest. Additionally, the priorities of an individual's personal values are likely to evolve as they advance through their different life stages (Schwartz, 1992). Thus, the role of PVs in the formation of EIs may differ in younger vs. older people. Similarly, immigrants tend to exhibit higher start-up rates than is the case for natives. This may be a consequence of differing cultural values which, to a great extent, are reflected in prioritized PVs.

The role of cultural values is also relevant. Liñán et al. (2016) argue that the influence of PVs on intention is stronger for individuals who prioritize different values from those in the society where they

live. This could explain why immigrants are more prone to starting up new businesses, and why, in multicultural societies, certain ethnic groups are more entrepreneurial than others. Do individuals with different priorities respond differently to the same situation? And do individuals with the same priorities respond differently due to their different situations (such as dependence on family circumstances)?

Personal values remain relatively stable over time (Bardi et al., 2009). Therefore, the relevance of understanding their influence may be questioned. However, research has found that these values may be modified, for example, via education (Myyry, Juujärvi and Pessa, 2013). This may happen through purposeful actions taken by teachers, but may also take place unintentionally through peer interaction and similar socialisation practices (Racko, Strauss and Burchell, 2017). There is, therefore, an obvious opportunity to develop and implement entrepreneurship education initiatives that include specific value-transmitting and value-changing components. Training activities, therefore, may be devised to contribute towards modifying the value structure of the participants. Future research could help not only in the search for the most promising combination of values to promote entry into entrepreneurship, but also to foster responsible and sustainable behaviour as an entrepreneur. The evaluation of education initiatives in this respect should be a long-term exercise. Longitudinal studies are called for to achieve this aim. Hitherto, they have been the exception: only one of the 22 papers analysed here carries out a longitudinal study (Lechner et al., 2018).

The PV structure may stimulate learning and skill development in value-congruent domains (Caprara and Steca, 2007). This could help explain why certain individuals exhibit higher entrepreneurial self-efficacy, once experience and other background variables are controlled for. Similarly, PVs could also influence the recognition of business opportunities (Shepherd, Patzelt and Baron, 2013), or the entrepreneurs' choices for the firm's strategic priorities

(Gorgievski et al., 2011). Entrepreneurial identity is also likely to be related to PVs. In this regard, the concept of “authenticity” has been linked to individuals behaving in accordance with their values (Gecas and Burke, 1995). Thus, PVs could reflect an activation of one’s own personal identity (Hitlin, 2003). Therefore, specific combinations of PVs could promote the formation of an entrepreneurial identity. There is an obvious gap to be filled by testing the model by using similar sample characteristics, the operationalisation of measures, and by controlling either for other variables in the model or for contextual factors.

6.2. Discussion of the empirical results

The main contribution of this dissertation is to highlight the relationship between personal values and entrepreneurial intention models. Chapter three anticipates the theoretical assumptions, proposing the relationship from collectivistic personal values and TPB antecedent variables and, consequently, the entrepreneurial intention. In this vein, as confirmed in the previous chapter, findings indicate that Schwartz (1992, 1994) and Ajzen’s (1991) theoretical frameworks are extremely compatible in predicting entrepreneurial intentions. This fact is also confirmed with previous studies that have explored this integration (Liñán et al., 2016; Morales et al., 2019).

The empirical analysis has been undertaken through an examination of a sample of working-age students from the United Kingdom and Spain with the results suggesting that collectivistic personal values could represent a major obstacle to start-up rates. More specifically, accentuation of these values leads to a less favourable evaluation (PA) and less perceived ability and control (PBC) regarding the process of new venture creation. This, in turn, implies lower entrepreneurial intention.

In the relationship between collectivistic personal values and SNs, the expected positive effect is found. Nevertheless, it was also found that SNs are not significantly related to EI, which is consistent with previous research (Armitage and Conner, 2001; Autio et al., 2001; Liñán and Chen, 2009; Moriano, Gorgievski, Laguna et al., 2012; Santos, Landström and Fayolle, 2017). In this respect, it is worth considering alternative specifications of the entrepreneurial intention model in which SNs are proposed to affect PA and PBC (Fretschner and Weber, 2013; Liñán and Chen, 2009). This could compensate for the negative relationship between collectivistic values and PA/PBC. Future research could analyse this possibility.

SNs are measured by multiplying normative beliefs with the motivation to comply with these beliefs (Ajzen, 1991; Ajzen and Fishbein, 1980). Normative beliefs represent the so-called social pressures to perform (or not perform) entrepreneurial behaviour (venture creation) (Ajzen, 1991). Yet, motivation to comply represents the urge to abide by the opinions of other referents (Ajzen, 1991; Belchior and Liñán, 2017). It may be the case that the conservation and self-transcendence dimensions are positively related with the motivation-to-comply element of the SNs. In this case, individuals accentuating collectivistic values will be more inclined to follow recommendations made by referent others, but will not necessarily expect them to support their entrepreneurial aspirations (the normative-belief element of the SNs).

In addition, the positive relationship hypothesised herein may be compensated for by another negative influence that we have overlooked. For instance, potential entrepreneurs may have a conflicting view of their referent others. As noted above, they may expect support based on the ‘moral obligation’ towards in-group members (Hockerts, 2017), but may also believe referent others will not completely endorse the idea of the individual creating a new venture. These mixed feelings could explain the lack of significant results and differences between the two countries. It may be argued that the influence of social norms on entrepreneurial intentions is

much broader and more complex than that of the other two TPB variables. That is, the SNs exhibit an effect different from that of PA and PBC. Future research should clarify this relationship through a more specifically designed research analysis. In this sense, last chapter analyses some future research lines in this regard.

Related to this difference, previous research suggests that the relative strength of the TPB antecedents in predicting entrepreneurial intention may differ depending on the industry and national sample under study (Kautonen et al., 2015; Kolvereid and Isaksen, 2006; Krueger et al., 2000). In this regard, certain conflicting results exist. For instance, some studies find a significant influence of SNs on entrepreneurial intention (Kautonen et al., 2015; Kolvereid and Isaksen, 2006), while others (as is our case) find no such influence (Liñán et al., 2016; Moriano et al., 2012).

The possibility exists that the specific personal-value structure acts as a moderator in these relationships. In this respect, Sieger and Monsen (2015) found that controllability perceptions, which could be related to self-direction values, might moderate the attitude-intention relation. Based on our results, emphasising collectivistic values decreases PA and PBC but increases SN perceptions. At the same time however, these values could also weaken the influence of PA/PBC and/or strengthen the influence of SNs on entrepreneurial intentions. This may be so since, for people accentuating collectivistic values, the opinion of their group members could have greater influence upon entrepreneurial intention than may be the case for those emphasising individualistic values (Moriano et al., 2012). In this respect, Shinnar et al. (2018) found that women are less likely to act on their intentions. Based on our results, the different structures of values could constitute a significant moderator that explains this difference, since women and men tend to exhibit different value priorities (Gupta, Turban and Pareek, 2013). Future research could analyse whether specific personal values (either alone or in combination with other values)

moderate the relationship between TPB antecedents and entrepreneurial intention.

6.3. Implications from the empirical analysis

Schwartz's (1992, 1994) value theory proposes a circular structure of values. Emphasis on certain values is associated with a low importance being attached to the opposing values. With this idea in mind, most research to date has focused on individualistic personal values, assuming that the relevance of the opposing collectivistic values will be low so they need not be considered. In turn, our research shows that, even after controlling for the level of individualistic personal values, the stress attached to collectivistic values is important and has an effect on the motivational antecedents of intention. That is, for any given level of importance ascribed to individualistic values, a higher relevance of self-transcendence or conservation values will imply a less favourable PA and a lower PBC, together with SNs of a more favourable nature.

This has significant implications for entrepreneurship scholars and policy-makers. The whole value structure of individuals, not only certain values, such as self-direction, stimulation and achievement, is relevant in the assessment of their entrepreneurial potential. Nevertheless, further research is needed to understand the interaction between the values in each value dimension.

In particular, self-transcendence values are negatively associated with PA and PBC. Perhaps, the preoccupation regarding the welfare of others (Schwartz, 1994), inherent to these values, is clearly related to social entrepreneurship. In this regard, there is a contemporary discussion on morals and ethics involving more sustainable enterprises (Anderson and Smith, 2007). There have also been some calls to bring about a discourse that is more closely

related to morality and ethics in entrepreneurship research (Brenkert, 2009; Dey and Steyaert, 2016; Harris et al., 2009; Morris, Schindehutte, Walton et al., 2002). In this respect, previous findings show that those with individualistic personal values place less emphasis on understanding the reasoning and judgement behind the moral perspective that individual agents assume (Dey and Steyaert, 2016; Gielnik, Frese, Kahara-Kawuki et al., 2015). By contrast, collectivistic values promote thoughts, feelings and behaviour towards connecting with others, and within one's own group (Triandis and Gelfand, 2012). From this perspective, there may be some relevant qualitative differences between entrepreneurs high in collectivistic values and those who do not prioritise these values. Arguably, therefore, accentuating these collectivistic values may decrease the chances of new venture creation, although doing so may contribute towards a more socially responsible behaviour on the part of the entrepreneur. Future research could provide new insights in this respect.

There are obvious implications related to these results, if confirmed, for entrepreneurship education. Despite the relative stability of values (Bardi et al., 2009), they are not completely fixed and may be modified through, for instance, education (Myyry et al., 2013). Education opens up the mind to new knowledge and helps develop fresh and new personal perspectives, which often then make the individual reconsider her or his value priorities (Schwartz, 2010, 2012). In the particular case of Business Schools, there is evidence of value change even when no specific value-transmitting activities are included in the academic curriculum (Arieli, Sagiv and Cohen-Shalem, 2016). This process takes place not only through purposeful actions by teachers, but also through peer interaction, which constitutes a key mechanism in value socialisation (Racko et al., 2017). More generally, Bardi and Goodwin (2011) identified several mechanisms leading to value change, including priming, adaptation, identification, consistency maintenance and direct persuasion attempts. Most of these mechanisms are likely to be present in educational programmes. In this respect, Westhead and

Solesvik (2016) found that women and men benefit differently from entrepreneurship education. These differences could be explained by the initial personal-value structure and value-changes during education. Value-transmitting training activities therefore, may be devised to contribute towards modifying the value structure of the participants. This reflects previous research that emphasised the importance of developing a more conscious entrepreneurial mind set (Krueger, 2007a; McGrath and MacMillan, 2000; McMullen and Shepherd, 2006). Nevertheless, further research that would enable the most promising combination of values is still required, not only for the promotion of entry into entrepreneurship, but also for fostering responsible and sustainable behaviour as an entrepreneur.

The comparison with the general GUESSS results for the United Kingdom and Spain has shown that our sample of younger postgraduate students exhibit higher intentions than is the case for a wider sample of older students (possibly having returned to education after some experience at work). This raises another interesting point regarding the predictive ability in the TPB. A higher entrepreneurial intention need not turn into action. Scholars, such as Liñán and Chen (2009) and van Gelderen, Kautonen and Fink (2015), typically find that motivational antecedents explain 40%-60% of the variance in the entrepreneurial intention, and though this renders the TPB framework the most accurate model for the prediction of intentions (Schlaegel and Koenig, 2014), Kautonen et al. (2015) report that the ability of this model to predict behaviour is considerably lower, typically in the range of 20%-30%.

Hence, a substantial proportion of unexplained behaviour still requires clarification. The value structure, including both individualistic and collectivistic value dimensions, may hold the key to unlock this question. In this respect, contemporary research has analysed the role of security as a job motivation (Delanoë-Gueguen and Liñán, 2019), closely linked to the personal value of security.

Such results indicate that security motivation not only decreases intention, but also has a direct negative effect on behaviour. Again, further research should be undertaken to explore the role of personal values, both collectivistic and individualistic, in the intention-behaviour link.

Chapter 7 – Final Recommendations

In this chapter we include some concluding remarks from the dissertation. We may acknowledge that the basic human values (BHV) theory for personal values (PVs), and the theory of planned behaviour (TPB) for intentions, are the prevalent frameworks in this field of study. The predominant approaches consider the frameworks of Schwartz (1992) and Ajzen (1991). The influence of PVs differs notably depending on the motivational antecedent of intention being considered and also on the specific (general vs social) EI analysed. Likewise, the study indicates that not only individualistic values but the complete personal-value structure is influential in explaining the formation of entrepreneurial intentions. To have a better overview, next subsections provide the specific understanding that this dissertation has acknowledged.

7.1. Conclusions

To the best of our knowledge, this dissertation provides the first systematic review of the literature which jointly analyses PVs and EIs. Judging by the publication dates, this is a rapidly growing area of research. The present study will be useful for other researchers entering into this area of analysis, since it provides not only a comprehensive mapping of the theories and methods used to date, but also the results that they report. Furthermore, this review

provides an integrative conceptual framework to synthesize knowledge to date (see Figure 6), and identifies a number of knowledge gaps and opportunities that remain open for future research.

Despite being a very recent field of research, it is already opening up into several different streams. The core of the field is the consideration of PVs (typically conceptualised under the BHV theory) as antecedents in the formation of EIs (most often considered from the perspective of the TPB). Alternative lines of analysis, however, have already been found. In particular, alternative entrepreneurship-related intentions are being considered, with SEIs as the most frequent. Evidence has already been provided that PVs differ in their effect on the formation of either social or general EIs.

On the one hand, the empirical analysis has provided additional important findings that need to be considered for the future of this research topic. This dissertation has presented an empirical analysis testing the relationship between collectivistic personal values and entrepreneurial intention. The results offer certain relevant insights concerning the importance of these values in the entrepreneurial process. These values are negatively related to attraction and perceived control towards entrepreneurship but positively related to SNs. This influence persists, despite controlling for the level of individualism within respondents and hence, collectivistic values exert an influence of their own on the formation of entrepreneurial intentions, over and above that of the more widely studied individualistic values. These results, if confirmed, may substantially transform the study of values in entrepreneurship. The search for the key values that increase intention could well prove futile. Instead, it may turn out to be the specific combination of all individualistic and collectivistic values that is relevant in this process.

Finally, the implications of accentuating values, such as universalism and benevolence, may be related to social entrepreneurship

intentions and behaviour. This research, therefore, opens up several highly interesting avenues for further research and we trust that the entrepreneurship research community will find them to be worthy of exploration.

7.2. Limitations

Finally, this study, according to the systematic literature review proposed in Chapter 2, as for any research, is not without its limitations. First, certain relevant contributions may not have been analysed. This may have happened either because they were not initially detected (our keywords may not have been sufficiently comprehensive), or because they have been inadequately excluded. Nevertheless, the authors have been as systematic and rigorous as possible to prevent this from happening. Second, there is always an element of subjectivity in the classification of papers, despite every precaution taken. For this reason, all doubts were discussed between all the authors before any decision was made. Despite any limitations, researchers in the field will find this contribution to be relevant and helpful.

On the other hand, the empirical analysis may present some other limitations. The sample is restricted to two regions in two different developed countries. Cultural studies have shown that individualistic values tend to prevail in these countries, while collectivistic values predominate in developing countries (Schwartz and Bardi, 2001). A sample that originates from a less developed economy may yield contrasting results. Similarly, even though young adults are more inclined to start a new venture, other groups of the population are also relevant in this respect. The results found here may be inconsistent with those from a sample of an older population, or one with different characteristics (e.g. a lower level of education). For these reasons, future research should test the

proposed research model on various countries and population segments prior to any generalisations being drawn.

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Appendix

Table A1: Papers included in the systematic literature review

Author	Type	Sample	Variables	Theory	Result
Farrington et al. (2011)	Quant.	739 students and business owners (South Africa)	14 work values compiled from the literature.	Work value and career choice (Cennamo and Gardner, 2008). TPB (Ajzen, 1991).	The article compares the work values the respondents associate with entrepreneurship for both commerce students and actual business owners. The results indicate that students are more idealistic regarding time (life-work balance), financial benefits, challenges, prestige possibilities for personal growth and development. Intention is referred to, but relation to work values is not tested.
Hirschi and Fischer (2013)	Quant.	218 university students (Germany)	Work values. Entrepreneurial intention (EI).	Based on Basic Human Values (Schwartz, 1992).	Self-enhancement (pay and prestige) and openness to change values (variety and autonomy) are positively related to the level of EI. Conservation (security and authority) is negatively related to the level of EI. The interaction with gender is related to the change in EI (self-enhancement related to increase in EI for women, while conservation related to increase in EI for men).
Watchravesrin gkan et al. (2013)	Quant.	345 undergraduate students (USA)	Self-actualisation and social affiliation values. Attitudes to entrepreneurship. EI.	Value-attitude-behaviour hierarchy (Homer and Kahle, 1988). TPB (Ajzen, 1991).	Self-actualisation values (self-fulfilment, a sense of accomplishment, self-respect, being well-respected) positively related to the attitude towards entrepreneurship, which in turn is related to the entrepreneurial career intentions. The influence of self-actualisation values on attitudes is moderated by the level of entrepreneurial knowledge (the relationship is stronger for students with more knowledge).

Fayolle et al. (2014)	Theor.	-	Personal values. Motivations. EI.	Basic Human Values (Schwartz, 1992). TPB (Ajzen, 1991).	Personal values proposed as helping to explain the formation of EI antecedents and also moderate their effect on the EI. Personal values could play an important role in the intention-action link.
Geldhof et al. (2014)	Quant. / Qualit.	3461 respondents, 48 interviews. University students (USA)	Job Values Scale. EI.	Relational Developmental Systems Theories (RDSTs; Overton, 2010, 2013).	Direct relationship between work-related values and intention is not tested. Both used as predictors of entrepreneurship-related behaviours. Work-related values (Entrepreneurial Career Values, ECV) can predict some specific entrepreneurial behaviours (particularly innovation-related ones). There are no significant differences in the importance attached to the ECV between individuals with (high, moderate or low) levels of EI.
Espiritu-Olmos and Sastre-Castillo (2015)	Quant.	1210 business students (Spain)	Personal values. Personality traits. EI.	Based on Basic Human Values (Schwartz, 1992).	Self-enhancement is the only higher-order personal value to exert a significant (positive) effect on the EI. Personal values do not seem to be better direct predictors of EI than is the case for personality traits.
Sastre-Castillo et al. (2015)	Quant.	384 workers and students (Spain)	Personal values. Social entrepreneurial orientation.	Adapted from basic Human Values (Schwartz, 1992).	The personal-value dimensions of openness to change, self-enhancement and self-transcendence are positively related to entrepreneurial attitudes. In turn, conservation is negatively related to these attitudes. Additionally, the study also measures the social (as opposed to classical/commercial) entrepreneurial orientation (SEO). In this case, Self-enhancement is the most significant variable (negatively) affecting the SEO. In turn, Self-transcendence and Conservation (conformity and tradition, excluding security) both have a significantly positive effect on the SEO.
Yang et al. (2015)	Quant.	276 MBA students (Taiwan)	Personal Values. Entrepreneurial Attitude.	Basic Human Values (Schwartz, 1992). TPB (Ajzen, 1991).	The personal values of self-direction, stimulation, achievement, and universalism are positively correlated with entrepreneurial attitude (EA). The values of benevolence, tradition, conformity, security, and power negatively correlated with EA.

Liñán et al. (2016)	Quant.	2069 adults with an university degree (Spain)	Personal values. EI.	Basic Human Values (Schwartz, 1992). TPB (Ajzen, 1991).	The interaction between cultural and personal values is relevant in the formation of EIs. Personal values directly affect EIs, but also an outlier effect (those who are more individualist than average in their culture will exhibit a higher EI).
Schmidt and Tatarko (2016)	Quant.	2061 respondents (Russia)	Personal Values. Implementation Intention.	Basic Human Values (Schwartz, 1992; 2012). TPB (Ajzen, 1991).	Personal values are distal predictors of EI. Effect on EI and implementation intention fully mediated by TPB antecedents. Tests the role of Self-direction (positively on ATT, SN and PBC) and Security (negatively on ATT) and they are both related to the TPB antecedents.
Tipu and Ryan (2016)	Quant.	309 students in senior classes (the United Arab Emirates)	Work Ethics: Self-reliance. Morality-ethics. Leisure. Hard work. Centrality of work. Wasted time. Delay of gratification. EI.	Multidimensional Work Ethic Profile (Miller et al., 2002)	Self-reliance, leisure and wasted time all positively predict entrepreneurial intention. Hard Work is an important component in the prediction of EI, however, the direction of the relationship is negative. Centrality of work is unrelated to EI. Unfortunately, Morality/Ethics and Delay of Gratification could not be tested due to poor scale reliabilities.
Kunttu et al. (2017)	Quant.	338 university students (Liechtenstein, Austria and Finland)	Work values. Social entrepreneurial goals. Self-Efficacy. EI. Socially Oriented Entrepreneurial Intention.	Eclectic model of work values (Lyons et al. 2010; Ryan and Deci, 2000; Twenge et al. 2010)	EI and Social entrepreneurial goal (SEG) as the dependent variables. Additionally, the Socially Oriented Entrepreneurial Intention (SOEI) is computed as the product EI*SEG. The Altruism work value has no effect on EI, but a positive and significant one on SEG and SOEI. In turn, Security has a significant negative effect on EI and SOEI, but a non-significant (negative) coefficient for SEG. Intrinsic reward positively predicts EI, but negatively so for SEG. No significant effect in the case of SOEI.

Bacq and Alt (2018)	Quant.	281 university students (USA and South Africa)	Empathy (Perspective taking, emphatic concern). Social worth. Social entrepreneurial self-efficacy. Social Entrepreneurial Intentions (SEI)	Combined model of SEI (Mair and Noboa, 2006). Prosocial motives approach (Shepherd, 2015). Individual agency and communion motives (Grant and Gino, 2010).	Support for a fully mediated relationship between empathy and SEI. In order to channel their empathy into SE intentions, individuals must experience SE self-efficacy and social worth. Empathy composed of empathic concern (affecting SEI through SE self-efficacy, an agentic element) and perspective-taking (affecting SEI through social worth, a communion motive).
Bolzani and Foo (2018)	Qualit.	140 new technology-based firms (Italy)	Personal goals. Internationalisation intention.	Basic Human Values (Schwartz, 1992). Laddering theory (Reynolds and Gutman, 1988).	Identification of goals motivating internationalisation. More abstract values (five of Schwartz's values: power, achievement, self-direction, security and benevolence) motivate intermediate goals, which, in-turn, stimulate more specific aims/results expected from internationalisation. Self-enhancement values (power, achievement) most frequently mentioned, followed by self-direction and security. No differences by group, except for Security (preferred by non-portfolio entrepreneurs, those with an entrepreneurial family background, those with past international experience, and push-entrepreneurs).
Fernandes et al. (2018)	Quant.	293 university students (Portugal and Spain)	Entrepreneurial orientation questionnaire (including personal values and EI).	Ad hoc integrative psychological model, including Basic Human Values (Schwartz, 1992).	Aims at explaining the entrepreneurial intention based on psychological traits, motivations and personal values in a university student sample. Only collectivistic values (tradition in the Portuguese sample, conformity in the Spanish sample) have a significant positive influence on intention.

Gorgievski et al. (2018)	Quant.	823 students (Germany, the Netherlands, Poland and Spain)	Personal values. Entrepreneurial intention.	Basic Human Values (Schwartz, 1992). TPB (Ajzen, 1991).	Openness and self-enhancement values relate positively to entrepreneurial career intentions. The relationship is mediated by attitudes towards entrepreneurship and self-efficacy. Additionally, self-enhancement is negatively related to subjective norms, causing a small indirect negative effect on EIs.
Lechner et al. (2018)	Quant.	862 young adults (Finland)	Work values. Entrepreneurial aspirations (EI). Leadership aspirations.	Vocational development theory (Holland, 1997; Super, 1980). Work values as a reflection of personal values (Hirschi and Fischer, 2013; Schwartz, 1992)	Longitudinal study measuring work values at T1 (2008/09) and EI and leadership aspirations at T2 (2013/14). The work values of extrinsic rewards and autonomy are positively related to EI. Higher importance placed on security and on social/interpersonal aspects is associated with lower EI. Personality traits included as control, but none were significant after including work values. Work values account for nearly all of the gender gap in EI.
Sihombing (2018)	Quant.	462 micro-entrepreneurs (Indonesia)	Terminal and Instrumental Values. Entrepreneurial attitude. Intention to Quit.	Values (Rokeach, 1973). Value-attitude-behaviour hierarchy (Homer and Kahle, 1988).	Terminal values (i.e., success, being an honest person, happiness of life, responsible, and having a good future) are significantly and positively related to the entrepreneurial attitude. Instrumental values (i.e., honesty, hard work, success, and work with diligence) do not affect the entrepreneurial attitude. Attitude towards entrepreneurship is not related to intention to quit as an entrepreneur.
Kruse et al. (2019)	Quant.	1326 students (Germany)	Personal values. Social entrepreneurial intention (SEI).	Work Motivation Framework (Diefendorff and Chandler, 2011). Basic Human Values (Schwartz, 1992). TPB (Ajzen, 1991).	Positive direct effects for self-transcendence and openness to change values on SEI. Negative effects for self-enhancement and conservation values. Positive indirect effects of self-transcendence and self-enhancement dimensions on SEI (through TPB antecedents).

Muhammad et al. (2019)	Qualit.	20 Muslim married women entrepreneurs (Pakistan)	Qualitative interview on the motives and reasons to start-up.	TPB (Ajzen, 1991) as a reference.	Retrospective account on the reasons/motives to start-up of women entrepreneurs with either forced, arranged or love marriages. In forced marriages, the need for independence is a common psychological factor influencing the decision to start-up a business. In arranged marriages, a need for stimulation is commonly cited. In the case of love marriages, the need to contribute to the familial wealth and success is mentioned.
Hueso et al. (2020)	Quant.	413 students (United Kingdom and Spain)	Personal values. Entrepreneurial intention.	Basic Human Values (Schwartz, 1992). TPB (Ajzen, 1991).	Collectivistic personal values (universalism, benevolence, tradition, conformity and security) have an indirect effect on EIs: negative through personal attitude and perceived behavioural control, but also positive through subjective norms.
Ye et al. (2020)	Quant.	1562 adults (China)	Altruistic value. Green entrepreneurship intention.	Push-Pull-Mooring model (Moon, 1995).	Warm glow (altruistic personal value) is included as a push factor influencing the green entrepreneurship switching intention. The Altruistic value exhibits a positive a significant effect on the green entrepreneurship switching intentions of individuals.

Type: Quant. = quantitative; Qualit. = qualitative; Theor. = theoretical

Table A2: Measurement model indicators.

Indicators		Loadings	Alpha	C.R.	A.V.E.
Entrepreneurial Intentions	ei1	0.904	0.938	0.939	0.843
	ei2	0.916			
	ei4	0.946			
	ei5	0.906			
Subjective Norms	sn1	0.869	0.783	0.837	0.692
	sn2	0.883			
	sn3	0.735			
Perceived Behavioural Control	pbc1	0.737	0.850	0.858	0.570
	pbc2	0.715			
	pbc3	0.765			
	pbc4	0.765			
	pbc5	0.743			
	pbc6	0.800			
Personal Attitude	pa1	0.349 ^w	--	--	--
	pa3	0.254 ^w			
	pa4	0.342 ^w			
	pa5	0.112 ^w			
	pa6	0.422 ^w			

Notes: ^w Indicator weights for the formative construct (PA); C.R. = Composite Reliability; A.V.E. = Average Variance Extracted

Table A3: Means, standard deviations, and correlations between latent variables for the full sample

		Mean	Std.Dev	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.	Conformity	3.273	0.876	1.000										
2.	Tradition	2.378	0.856	0.349	1.000									
3.	Security	3.482	0.827	0.157	-0.025	1.000								
4.	Benevolence	3.963	0.647	-0.093	-0.021	-0.334	1.000							
5.	Universalism	3.955	0.738	-0.251	-0.013	-0.275	0.366	1.000						
6.	PA	3.631	1.081	-0.172	-0.224	-0.030	-0.118	-0.156	1.000					
7.	SNs	3.550	1.397	0.093	-0.029	-0.009	0.059	0.005	0.321	1.000				
8.	PBC	4.131	1.015	-0.023	-0.024	0.026	-0.186	-0.160	0.501	0.247	1.000			
9.	EI	3.332	1.691	-0.106	-0.007	-0.053	-0.120	-0.162	0.527	0.214	0.505	1.000		
10.	Individ. Dummy	0.494	0.501	-0.323	-0.329	-0.192	-0.297	-0.424	0.264	0.073	0.152	0.230	1.000	
11.	Country Dummy	0.484	0.500	-0.009	-0.151	0.219	-0.271	-0.283	0.175	-0.005	0.132	0.123	0.215	1.000

Table A4: Means, standard deviations, and correlations between latent variables for the Spanish sample

	Mean	Std.Dev	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Conformity	3.194	0.844	1.000									
2. Tradition	2.397	0.806	0.387	1.000								
3. Security	3.269	0.869	0.267	0.110	1.000							
4. Benevolence	4.015	0.655	-0.139	0.025	-0.296	1.000						
5. Universalism	4.036	0.766	-0.264	-0.051	-0.278	0.384	1.000					
6. PA	3.426	1.114	-0.098	-0.174	-0.080	-0.117	-0.170	1.000				
7. SNs	3.553	1.411	0.005	-0.067	-0.032	0.070	-0.011	0.441	1.000			
8. PBC	4.005	1.076	0.039	-0.019	0.051	-0.220	-0.180	0.484	0.289	1.000		
9. EI	3.128	1.630	0.018	-0.009	-0.081	-0.083	-0.200	0.524	0.287	0.464	1.000	
10. Individ. Dummy	0.390	0.489	-0.306	-0.324	-0.250	-0.317	-0.444	0.196	0.075	0.050	0.159	1.000

Table A5: Means, standard deviations, and correlations between latent variables for the UK sample

		Mean	Std.Dev	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	Conformity	3.358	0.903	1.000									
2.	Tradition	2.358	0.908	0.324	1.000								
3.	Security	3.711	0.713	0.057	-0.100	1.000							
4.	Benevolence	3.906	0.636	-0.061	-0.162	-0.288	1.000						
5.	Universalism	3.868	0.698	-0.265	-0.065	-0.167	0.225	1.000					
6.	PA	3.853	1.001	-0.235	-0.215	-0.042	-0.085	-0.094	1.000				
7.	SNs	3.547	1.385	0.172	0.001	0.024	0.044	0.031	0.183	1.000			
8.	PBC	4.265	0.930	-0.080	0.013	-0.077	-0.083	-0.072	0.434	0.197	1.000		
9.	EI	3.551	1.731	-0.214	0.030	-0.086	-0.103	-0.067	0.558	0.147	0.550	1.000	
10.	Individ. Dummy	0.605	0.490	-0.352	-0.294	-0.255	-0.176	-0.322	0.328	0.077	0.222	0.262	1.000

Questionnaire

Values and Entrepreneurial Intention (VIE Questionnaire)

This questionnaire is part of a research project on cultural values and socio-economic aspects related to the development of professional careers, involving several Universities in Europe. Participation in the study is optional and if you decided to participate in the study you can withdraw at any time. Your participation is important to enable us to investigate the relation between cultural values/socio-economic aspects and the development of professional careers. Please answer all the statements honestly, there is no right or wrong answer. The results obtained will be used exclusively for the purpose of the investigation. All data will be kept anonymously and will be treated confidentially. If you have any questions, observations or suggestions please feel free to contact the research team.

Demographic Data

1a. Gender: Male Female

1b. Age: _____ (years)

2. Indicate the University degree obtained/will be obtained (e.g. BA (Hons) Business Management): _____

3. Have you contacted an entrepreneur's support centre in the last few months? No Yes

4. Select the option that best suits your current work situation (choose one). Mark only one oval.

<p>4.1 Employee:</p> <p><input type="checkbox"/> Private company</p> <p><input type="checkbox"/> Public sector</p> <p><input type="checkbox"/> NGO or association</p>	<p>4.2 Self-employed:</p> <p><input type="checkbox"/> Independent worker</p> <p><input type="checkbox"/> Entrepreneur with partners</p> <p><input type="checkbox"/> Starting up a new venture</p>	<p>4.3. Not working:</p> <p><input type="checkbox"/> Unemployed</p> <p><input type="checkbox"/> Student</p> <p><input type="checkbox"/> Other</p>
---	---	---

5. Do you have any experience as an employee?

No, I have never worked

Yes, I have ____ years of experience

6. Have you ever been a self-employed/entrepreneur?

No, never

Yes, for _____ years.

7. Indicate your country and region of origin: _____.

8. Indicate the region in which you live: _____.

9. How long have you lived in this region?

I've always lived here

I've been living here for _ years.

10. What is the highest study-level reached by your parents?

Father: Primary Secondary Vocational training
 University Others

Mother: Primary Secondary Vocational training
 University Others

11. What socio-economic group would you say you belong to?

Low Medium-low Medium
 Medium-high High

12 Are any of your close family members, or have they been, an **entrepreneur or business-owners** (parents, siblings, grandparents, uncles and aunts or cousins)?

No Yes

If yes, what kind of business? _____

Your intention on Career Paths

Mark on a scale of 0 - 6 your intention to pursue one of the following career paths.

		Not at all interested				Very much interested		
		0	1	2	3	4	5	6
I1	Create your own business (being an entrepreneur).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I2	Develop your career in a private company..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I3	Work in the public sector (being a civil servant).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- I4 Collaborate in a non-profit organisation (NGO).

Here we briefly describe some people. Please read each description and think about how much each person is or is not like you.

How much the person in the description is like you? Not at all like me Very much like me

0	1	2	3	4	5
---	---	---	---	---	---

- V1 Thinking up new ideas and being creative is important to her/him. (S)he likes to do things in her/his original way.
- V2 It is important to her/him to be rich. (S)he wants to have a lot of money and expensive things.
- V3 (S)he thinks it is important for every person in the world to be treated equally. (S)he believes everyone should have equal opportunities in life.
- V4 It's very important to her/him to show her/his abilities. S(he) wants people to admire what (s)he does. Mark only one oval.
- V5 It is important to her/him to live in secure surroundings. (S)he avoids anything that might endanger her/his safety.
- V6 (S)he thinks it is important to do lots of different things in life. (S)he always looks for new things to try. Mark only one oval.
- V7 (S)he believes that people should do what they're told. (S)he thinks people should follow rules at all times, even when no-one is watching.

- V8 It is important to her/him to listen to people who are different from her/him. Even when (s)he disagrees with them, (s)he still wants to understand them.
- V9 (S)he thinks it's important not to ask for more than what you have. (S)he believes that people should be satisfied with what they have.
- V10 (S)he seeks every chance (s)he can to have fun. It is important to her/him to do things that give her/him pleasure.
- V11 It is important to her/him to make her/his own decision about what (s)he does. (S)he likes to be free to plan and choose her/his activities for her/himself.
- V12 It's very important to her/him to help the people around her/him. (S)he wants to care for their well-being.
- V13 Being very successful is important to her/him. (S)he likes to impress other people.
- V14 It is very important to her/him that her/his country be safe. (S)he thinks the state must be on watch against threats from within and without.
- V15 (S)he likes to take risks. (S)he always looking for adventures.
- V16 It is important to her/him always to behave properly. (S)he wants to avoid doing anything people would say is wrong.

- V17 It is important to her/him to be in charge and tell others what to do, (S)he wants people to do what (s)he says.
- V18 It is important to her/him to be loyal to her/his friends. (S)he wants to devote her/himself to people close to her/him.
- V19 (S)he strongly believes that people should care for nature. Looking after the environment is important to her/him.
- V20 Religious belief is important to her/him. (S)he tries hard to do what her/his religion requires.
- V21 It is important to her/him that things be organised and clean. (S)he really does not like things to be a mess.
- V22 (S)he thinks it's important to be interested in things. (S)he likes to be curious and to try to understand all sorts of things.
- V23 (S)he believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to her/him.
- V24 (S)he thinks it is important to be ambitious. (S)he wants to show how capable (s)he is.
- V25 (S)he thinks it is best to do things in traditional ways. It is important to her/him to keep up the customs (s)he has learned.
- V26 Enjoying life's pleasures is important to her/him. (S)he likes to 'spoil' her/himself.

- V27 It is important to her/him to respond to the needs of others. (S)he tries to support those (s)he knows.
- V28 (S)he believes (s)he should always show respect to her/his parents and to older people. It is important to her/him to be obedient.
- V29 (S)he wants everyone to be treated justly, even people (s)he doesn't know. It is important to her/him to protect the weak in society.
- V30 (S)he likes surprises. It is important to her/him to have an exciting life.
- V31 (S)he tries hard to avoid getting sick. Staying healthy is very important to her/him.
- V32 Getting ahead in life is important to her/him. (S)he strives to do better than others.
- V33 Forgiving people who have hurt her/him is important to her/him. (S)he tries to see what is good in them and not to hold a grudge.
- V34 It is important to her/him to be independent. (S)he likes to rely on her/himself.
- V35 Having a stable government is important to her/him. (S)he is concerned about the social order being protected.
- V36 It is important to her/him to be polite to other people all the time. (S)he tries never to disturb or irritate others.

V37 (S)he really wants to enjoy life.
 Having a good time is very
 important to her/him.

V38 It is important to her/him to be
 humble and modest. (S)he tries
 not to draw attention to
 her/himself.

V39 (S)he always wants to be the one
 who makes the decisions. (S)he
 likes to be the leader.

V40 It is important to her/him to adapt
 to nature and to fit into it. (S)he
 believes that people should not
 change nature.

For you, starting a new business (being an entrepreneur) would involve...

	Totally unlikely				Totally likely		
	0	1	2	3	4	5	6
A1 Facing new challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A2 Creating jobs for others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A3 Being creative and innovative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4 Having a high income.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A5 Taking calculated risks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A6 Being my own boss (independence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Now please state to what extent these are desirable for you generally in life...

	Not at all desirable				Totally desirable		
	0	1	2	3	4	5	6
B1 Facing new challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B2 Creating jobs for others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B3 Being creative and innovative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B4 Having a high income.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B5 Taking calculated risks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B6 Being my own boss (independence).

Please, indicate to what extent you would be able to effectively perform the following tasks:

		Totally ineffective				Fully effective		
		0	1	2	3	4	5	6
E1	Defining my business idea and a new business strategy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E2	Keeping under control the new-venture creation process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E3	Negotiating and maintaining favourable relationships with potential investors and banks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E4	Recognising opportunities in the market for new products and/or services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E5	Interacting with key people to raise capital to create a new venture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E6	Creating and putting into operation a new venture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please, think now about your family and closer friends. To what extent would they agree if you decided to become an entrepreneur and start your own business?

		Totally disagree				Totally agree		
		0	1	2	3	4	5	6
C1	My immediate family (parents and siblings).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C2	My close friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C3	My colleagues or mates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How do you value the opinion of these people in this regard? I think it is...

		Not at all important				Very important		
		0	1	2	3	4	5	6
D1	That of my immediate family (parents and siblings).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D2	That of my close friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D3	That of my colleagues or mates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please state your level of intention with respect to the following statements:

		Nothing				Totally		
		0	1	2	3	4	5	6
F1	It is very likely I will start a venture someday.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- F2 I am willing to make any effort to become an entrepreneur.
- F3 I have serious doubts whether I will ever start a venture.
- F4 I am determined to start a business in the future.
- F5 My professional goal is to be an entrepreneur.

Please choose the option that best reflects your feelings.

G1. If you finally decided to create your own business, you would mainly do it due to:

	3	2	1	0	1	2	3	
Lack of a better alternative employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Taking advantage of a business opportunity

Published Articles

Hueso, J. A., Jaén, I. and Liñán, F. (2020), “*From personal values to entrepreneurial intention: a systematic literature review*”. International Journal of Entrepreneurial Behaviour and Research, Forthcoming.

Hueso, J. A., Jaén, I., Liñán, F., et al. (2020), “*The influence of collectivistic personal values on the formation of entrepreneurial intentions*”. International Small Business Journal, Vol. 38 No. 5, pp. 449-473.

Article



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Abstract

This article analyses the specific role of collectivistic personal values as an antecedent of entrepreneurial intention. While previous studies have focused on individualistic values, the influence of collectivistic values has remained largely ignored. We study this influence on a sample of 413 university students from the United Kingdom and Spain. The results are consistent in both countries, suggesting that an emphasis on collectivistic personal values triggers an indirect, negative effect on entrepreneurial intentions through both personal attitude and perceived behavioural control. However, it also induces an indirect positive effect through subjective norms. The study indicates that not only individualistic values but the complete personal-value structure is influential in explaining the formation of entrepreneurial intentions.

Keywords

collectivistic values, entrepreneurial intention, personal values, structural equation modelling, theory of planned behaviour

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Introduction

In contemporary research, intention models have frequently been employed in entrepreneurship studies. Intention is considered as the most immediate and important variable for the prediction of the future behaviour of entrepreneurs (Adam and Fayolle, 2015). The literature on entrepreneurial intentions is extensive with multiple papers analysing entrepreneurial intention models (Liñán and Fayolle, 2015). However, much remains to be ascertained regarding the manner in which entrepreneurial intentions are formed. The contemporary literature (Liñán and Fayolle, 2015; Schlaegel and Koenig, 2014) has called for more empirical studies to provide an explanatory understanding of the underlying mechanisms within the entrepreneurial process.

Personal values represent potentially relevant variables in this respect (Morales et al., 2019); within psychology research, they are important in explaining human actions (Bardi and Schwartz, 2003). These values have been regarded as one of the most significant drivers in guiding intentions and subsequent behaviour (Herek, 1986; Maio et al., 2001; Murray et al., 1996). According to Fayolle et al. (2014), personal values play a major role in entrepreneurship. In particular, much research has studied the individualistic personal values of entrepreneurs, by focusing on the consequences of entrepreneurial success, competitiveness, innovation and efficiency (Birch, 1981; Birch and MacCracken, 1983; Hayton et al., 2002; Peterson, 1988; Reynolds and Freeman, 1986; Wagner and Moch, 1986).

Yet, individuals may stress the importance of a variety of basic values (Schwartz, 1992). Despite the main interests in individualistic values of entrepreneurship researchers (Morales et al., 2019), collectivistic values are also important as motivational goals and guiding principles for individuals. In this respect, a specific research theme has focused on the moral responsibility and ethical behaviour of entrepreneurs (Amable, 2010; Anderson and Smith, 2007; Brenkert, 2009; Harris et al., 2009; Scharff, 2016). It is argued that an emphasis on collectivistic values may see the entrepreneur influencing moral and ethical norms in new situations and contexts (Kaptein, 2017). This implies a greater consideration of the consequences for others, both for those in close relationships and for society in general. In this vein, collectivistic values can encourage entrepreneurs to infuse their ventures with an element of sustainability, solidarity, business ethics, corporate social responsibility, gender equality and loyalty, among other factors (Barnett and Karson, 1987; Costa et al., 2001; Hemingway, 2005; Shephard, 2008). Thus, the collectivistic values of potential entrepreneurs are important for the definition of their identity as entrepreneurs and, consequently, their intention to start a venture. Nevertheless, there is still a paucity of research on how personal values, in general, influence the decision-making processes of potential entrepreneurs. One of the few studies carried out in this field is that of Yang et al. (2015), though their focus was solely on the influence of personal values on personal attitudes (PAs).

In this study, the role of collectivistic personal values in the formation of the entrepreneurial intention is investigated. According to Ajzen's (1991) theory of planned behaviour (TPB), entrepreneurial intention is developed from three motivational antecedents. The influence of the collectivistic personal values on all three antecedents – PA, subjective norms (SNs), and perceived behavioural control (PBC) – is analysed. Empirical analysis was conducted in two regions, from different countries (the United Kingdom and Spain), with these being clearly different in terms of history and culture. Nonetheless, they are both large, developed economies, exhibiting similar entrepreneurship rates. In 2017, 9.3% of the working-age population in the United Kingdom was expected to start a business within the next three years (Hart et al., 2018). Despite the rate in Spain being lower, at 6.8% (Peña et al., 2018), the two economies have relatively high rates of potential entrepreneurship, suggesting that creating a business is considered a valued career option. Furthermore, the two countries share similar characteristics in that they both enjoy innovation-driven and mature economies (Liñán et al., 2013). These economies are shifting towards the

service sector and catering for an increasingly more affluent population. As noted by Bosma et al. (2008), they are both focused on knowledge generation and the development of innovative, opportunity-seeking entrepreneurial activity.

Following this introduction, the article proceeds as follows. First, the theoretical framework is presented, and our hypotheses regarding how collectivistic values affect the formation of the entrepreneurial intention are developed. The methodology and results are presented in the subsequent sections, with the article finishing with the discussion and conclusion sections, wherein a reflection upon these results is included.

Theoretical framework

Collectivistic personal values and the entrepreneurial intention

This article is based on an integration of values and intention theories. The Theory of Human Values, developed by Schwartz (1992), stresses the importance of personal values in affecting decision and action. Values are defined as desirable goals serving as guiding principles in life (Schwartz, 1992; Schwartz and Bardi, 2001). These personal values orient decision-making and boost value-congruent behaviour (Bardi and Schwartz, 2003; De Dreu and Nauta, 2009; Schwartz, 2010, 2012). In this theory, it is assumed that values tend to be relatively stable over time (Bardi et al., 2009), and therefore, exert a long-lasting effect on motivation and intention (Morales et al., 2019; Yang et al., 2015).

Widely used in the taxonomies of values found in the literature, Schwartz's theory is deemed the most well developed (Yang et al., 2015). Schwartz's (1994) value theory is based on a circular structure made up of 10 different basic values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, conformity, tradition and security. These basic values may be grouped into four dimensions: self-enhancement, openness to change, self-transcendence and conservation.



Figure 1. The theory of basic human values.
Source: Based on Schwartz (1992, 1994).

(Konsky et al., 2000). These tend to be emphasised by people who largely consider themselves as part of a group. A graphic representation of this theory is presented in Figure 1.

This research is focused on those collectivistic values included in the conservation and self-transcendence dimensions. As such, we analyse the role of conformity, tradition and security (conservation), universalism and benevolence (self-transcendence). The conservation dimension underlines order, self-restriction, preservation of the past and resistance to change. In turn, the self-transcendence dimension captures the values that emphasise concern for the welfare and interests of others (Schwartz, 2012).

Finally, these collectivistic values are linked to entrepreneurial intention. Since intentions are central to the entrepreneurship process, they represent the first step in a succession of decisions and actions leading to becoming an entrepreneur (Bird, 1988; Kautonen et al., 2015), so an entrepreneurial intention model is applied. Intentions depict the transformation of beliefs, perceptions and other exogenous factors into the outcome that immediately precedes the action itself (Ajzen, 2001). In short, intentions represent the most accurate proxy for the corresponding behaviour (Fayolle et al., 2014; Fishbein and Ajzen, 1975; Liñán and Chen, 2009; Miller et al., 2009; Schwarz et al., 2009).

TPB, in particular, is the most commonly used framework in entrepreneurship research (Schlaegel and Koenig, 2014). It explains the intention to enact a behaviour as a result of the following three antecedents: PA towards this act, SNs and PBC. First, PA refers to the degree to which a person has a positive or negative evaluation, or appraisal, of entrepreneurial behaviour (Ajzen, 1991). Second, SNs denote the support expected from the people of reference (family, friends and so forth) if the individual decides to perform this behaviour, and third, PBC indicates the perceived ease or difficulty in undertaking entrepreneurial action. More positive perceptions of these antecedents lead to a higher level of entrepreneurial intentions (Lee et al., 2011). Accordingly, TPB is the second pillar upon which our theoretical framework is built. According to TPB, other cognitive-level variables should affect intention indirectly, through its antecedents (Krueger, 2007). Personal values represent an example of such an indirect influence and, in particular, our focus centres on the values within the conservation and self-transcendence dimension.

The conservation dimension

The conservation dimension, proposed by Schwartz (1992), accentuates the personal values of tradition, conformity and security; individuals that emphasise these values tend to avoid situations of uncertainty and change. It could be argued that these individuals have a deeply rooted socio-cultural orientation (Yang et al., 2015), tending to subordinate their own personal interests in favour of socially imposed expectations. Individuals prioritising the personal value of tradition attach high importance to respect, commitment and acceptance of customs related to culture or religion (Schwartz and Boehnke, 2004). Similarly, the assertion of conformity entails maintaining control over actions, inclinations and impulses that impose upon others. Violation of social norms or expectations is also avoided (Schwartz and Boehnke, 2004). In addition, the personal value of security implies the avoidance of risky situations or of those implying uncertainty and change in the close environment (Yang et al., 2015). The entrepreneur is identified with continuously challenging the status quo (Shane and Venkataraman, 2000) and the rupture of social expectations (De Clercq and Voronov, 2009). Such individuals fail to accord with the values of the conservation dimension. Likewise, individuals who emphasise the conservation dimension are reluctant to perform actions that imply breaking with customs and tradition (Yang et al., 2015). Therefore, this information indicates that individuals highlighting conservation values might exhibit an unfavourable PA towards entrepreneurship. Thus, the following hypothesis can be established:

H1a. Individuals accentuating conservation values (conformity, tradition and security) will exhibit a less favourable PA towards entrepreneurship.

Individuals who emphasise the conservation dimension attach great importance to the opinion of key referents (parents, teachers, friends, etc.) and to the surrounding environment (religion, customs, traditions and so forth; Schwartz and Boehnke, 2004). Hockerts (2017) affirms that a feeling of belonging to this close environment generates expectations of a relationship of reciprocity. As such, among the members of the closest groups and significant members therein, a 'moral obligation' of loyalty and support for group decisions is evident (Mair and Noboa, 2006). Therefore, just as individuals feel compelled to support the other members of their closest group of referents, so they would expect mutual support for their decisions. In this way, this 'moral obligation' of loyalty and reciprocity with close referent people would cause individuals to expect support when they decide to create a firm. Thus, we propose the following hypothesis:

H1b. Individuals accentuating conservation values (conformity, tradition and security) will exhibit more positive SNs regarding entrepreneurship.

Generally, individuals take one of two approaches to their decision-making process (Crowe and Higgins, 1997), by adopting one of the following regulatory foci: promotion or prevention. On the one hand, under a promotion regulatory focus, the individual is concerned with the advancement, growth, accomplishments, hopes and aspirations that can be attained by performing a given behaviour. On the other, the prevention regulatory focus is concerned with safety, responsibilities and obligations, in an effort to avert negative and/or uncertain outcomes.

For the individual prioritising the conservation dimension, it is harmony and stability of society, relationships and of the self that constitute crucial factors (Schwartz, 1994). In this respect, security is associated with an emphasis on 'avoiding risky situations' and 'avoiding everything that might go wrong'. Furthermore, tradition and conformity imply respect for traditions and social norms (Schwartz, 1994). The perspective of creating a venture means making decisions and behaving in ways that break with traditions and social norms. Thus, for people who accentuate conservation values the process of business creation is a potential source of 'social sanction'. Individuals accentuating the conservation dimension are likely to follow a prevention regulatory focus rather than one of promotion. Consequently, they should be more conscious regarding the inherent difficulties that starting up a company involves (Brockner et al., 2004; Higgins, 1998). These individuals are more likely to see new venture creation as a difficult and complex process. Accordingly, individuals emphasising conservation values may feel less capable of successfully starting up a firm. These arguments lead us to propose the following hypothesis:

H1c. Individuals accentuating conservation values (conformity, tradition and security) will exhibit a less favourable PBC.

The self-transcendence dimension

The dimension of self-transcendence encompasses the personal values of benevolence and universalism (Schwartz, 1992). Accentuating the benevolence value indicates that an individual tries to help other members of the closest group (relatives, ethnic group, close friends and so on) and contributes to the welfare within the family and other primary groups (Schwartz, 2012). Subjects highlighting the personal value of universalism stress the importance of tolerance, social justice and equality (Schwartz, 1992). Notwithstanding, entrepreneurship is strongly characterised by an

'egoistic passion' (Locke and Baum, 2007), which opposes the spirit of altruism, respect, tolerance and the protection of the welfare of others (Hirschi and Fischer, 2013).¹ Self-transcendent individuals are expected to appreciate the contribution to general social well-being as a major element valuing the rewards of time spent with their family and significant others (Schwartz, 1992). In contrast, starting a new venture implies a high commitment in terms of effort, resources and time; so, for those emphasising the self-transcendence value dimension, entrepreneurship represents a large opportunity cost (Yang et al., 2015). These individuals may have a less favourable PA towards entrepreneurship; accordingly, the following hypothesis is proposed:

H2a. Individuals accentuating self-transcendence values (benevolence and universalism) will exhibit a less favourable PA towards entrepreneurship.

Regarding the SNs, self-transcendent individuals considering the possibility of creating a new venture have, among other motivations, the notion of helping others, both within the closest group (benevolence) and in broader society (universalism) (Schwartz, 1992). For this reason, individuals considering new venture creation as a way to help others expect those around them to share that vision of entrepreneurship. As such, these potential entrepreneurs expect support from those who benefit from the success of the new firm. Accordingly, the following hypothesis is proposed:

H2b. Individuals accentuating self-transcendence values (benevolence and universalism) will exhibit more positive SNs regarding entrepreneurship.

Finally, stressing self-transcendental personal values implies recognition of the importance of contributing positively to the improvement of the close environment (Holland and Shepherd, 2013). This concern, regarding improving the environment and helping others, might generate a burden in the form of greater responsibility. These individuals should be more aware of the possible effects of their behaviour on those close to them, on society in general and on the natural environment. This represents additional variables for consideration in the eventual process of venture creation. By taking these variables into account, the business venture process represents a more complex and difficult target to achieve as such, the individual might perceive a lower level of behavioural control. Accordingly, the following hypothesis is formulated:

H2c. Individuals accentuating self-transcendence values (benevolence and universalism) will exhibit a less favourable PBC.

Research model

Figure 2 presents an overview of our research model and the proposed hypotheses. This represents our conceptual framework in which the motivational antecedents mediate the relationship of the conservation and self-transcendence dimension values, on the one hand, and the entrepreneurial intention, on the other.

Methodology

Sample

This study is based on survey data collected in two different regions: Hampshire in the United Kingdom and Catalonia in Spain; the two regions share similar economic and social conditions. In the United Kingdom, the data come from a local university in the county of Hampshire, while in

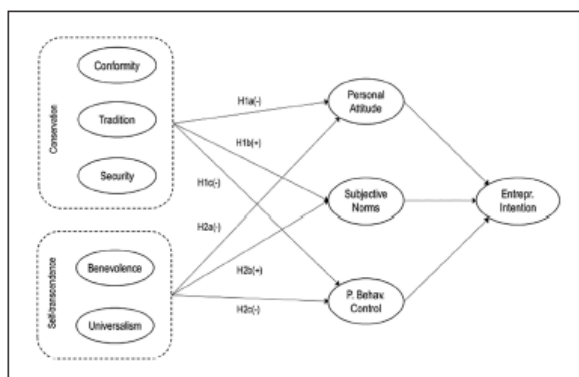


Figure 2. Collectivistic personal values in the formation of entrepreneurial intentions.

Table 1. Descriptive analysis.

Descriptive statistics	UK (N=200)		Spain (N=213)		Both (N=413)	
	Mean	SD	Mean	SD	Mean	SD
Age (years)	25.70	4.081	26.89	3.957	26.32	4.056
Gender: female = 0; male = 1	0.49	0.501	0.43	0.497	0.46	0.499
Entrepreneurship centre (yes = 1; no = 0)	0.08	0.264	0.12	0.327	0.10	0.299
Ever self-employed? (yes = 1; no = 0)	0.29	0.453	0.14	0.353	0.21	0.410
Schooling level of the father ^a	3.07	0.980	2.54	1.304	2.80	1.186
Schooling level of the mother ^a	3.04	1.002	2.62	1.303	2.82	1.183
Family entrepreneur (yes = 1; no = 0)	0.65	0.480	0.62	0.486	0.63	0.483
Socio-economic group ^b	2.85	0.825	2.99	0.682	2.92	0.756

SD: standard deviation.

^a1 = primary education, 2 = secondary education, 3 = vocational training, 4 = university, 5 = other.

^b1 = lower, 2 = lower-middle, 3 = middle, 4 = upper-middle, 5 = upper.

the Spanish subsample, it originates from several universities in the Catalonian region. Information of a more descriptive nature is presented in Table 1.

Given that young adults in the 25- to 35-year age range with a higher level of education consistently exhibit the highest entrepreneurship participation rates (Singer et al., 2018), university students constitute our sample. Trained to experiment with their ideas in real-life situations, students learn and adapt them as they leverage who and what they know to create valuable opportunities (Singer et al., 2018). Questionnaires were distributed to students who attended business-related courses, the British and Spanish samples presented similar characteristics. The target sample was made up of students enrolled in undergraduate and master programmes, with an initial of 479 responses obtained. There were 61 respondents above the age of 35, with these cases removed from the analysis due to their motivations and experience likely differing from those in the younger, target group. In addition, five questionnaires were excluded due to their high level of missing data.

The final sample included 413 usable questionnaires with 200 questionnaires collected in the United Kingdom and 213 obtained from Spain.

As shown in Table 1, the general characteristics of the two subsamples were similar. The most notable differences related to the self-employment experience, which was substantially higher for the UK respondents (29% of UK respondents had this experience vs 14% in Spain). In the same vein, the UK respondents reported a slightly higher educational level than their parents. With regard to parents with university qualifications, the percentage was similar (approximately 30%) in the two subsamples. In Spain, it was more common that parents were found to have only primary education (around 30% of the respondents, whereas the corresponding percentage was less than 5% in the United Kingdom), with the same trend regarding secondary studies or vocational training (only 16%–19% of respondents in Spain reported a parent in one of these categories vs 25%–30% for their UK counterparts).

Measures

The dependent variable is the entrepreneurial intention, which was measured through the well-established Entrepreneurial Intention Questionnaire (EIQ; Liñán and Chen, 2009; Liñán et al., 2016). The scale was made up of five statements, with the response range varying from 0 to 6, where 0 meant 'Totally disagree', while 6 signified 'Totally agree'. As an example, one item was 'I am willing to make any effort to become an entrepreneur'. One item was intentionally reversed to prevent acquiescence bias.

The EIQ was also employed to measure the TPB antecedent variables: PA, SNs and PBC. Likert-type scales with a response range of 0 to 6 were also applied here, where 0 was 'not at all desirable' or 'totally disagree' and 6 indicated 'totally desirable' or 'totally agree'. For the PA, both the desirability of six specific outcomes and the expectation that these outcomes could be met through entrepreneurship were assessed. Example items for these outcomes include 'starting a new business would involve being creative and innovative' and 'to what extent is being creative and innovative desirable for you in general?' These responses were then multiplied to obtain a valuation of entrepreneurship.

Similarly, the SNs measure was obtained by multiplying the expected support from significant referent people (immediate family, close friends and colleagues) by the motivation to comply with their opinions. Example items for this scale include 'to what extent would your close friends agree if you decided to start a venture?' and 'how do you value the opinion of your close friends in this regard?' In the case of PBC, a Likert-type scale with six statements was used, with responses ranging from 0 ('totally ineffective') to 6 ('fully effective'). An example item for this scale would be 'to what extent would you be able to effectively negotiate and maintain favourable relationships with potential investors and banks?'

Personal values were measured using Schwartz's Portrait Value Questionnaire (PVQ) (Schwartz et al., 2001). The PVQ measures value priorities and is a scale that comprises 40 statements. The statements describe a person and ask the respondent to state the extent to which that person is similar to her or him. The response range varies from 0 ('not at all like me') to 5 ('very much like me'). An example of these items is, 'Forgiving people who have hurt her or him is important to her or him. (S)he tries to see what is good in them and not to hold a grudge'. The PVQ measures all 10 personal values as proposed by Schwartz (1992). Specifically, a total of 23 items correspond to the formation of the collectivistic personal values composing the self-transcendence and conservation dimensions and are grouped as follows: conformity (four items), tradition (four items), security (five items), benevolence (four items) and universalism (six items).

Two dummy variables were included. The country dummy was coded as 1 for respondents in the United Kingdom and 0 for those in Spain. This variable would control for any possible country differences in the level of any of the study variables. The level of individualism was also controlled for since the overall Schwartz value structure includes individualistic values, together with collectivistic values (Schwartz, 1992, 1994, 2010, 2012). To compute this variable, the mean of all individualistic values was first calculated for each respondent, with this new variable then dichotomised as either 1 (for respondents with individualism levels higher than the mean) or 0 (for respondents with individualism levels lower than or equal to the mean).

Despite the indication by Maxwell and Delaney (1993) that dichotomising continuous variables may be problematic, dichotomisation is carried out here for the individualism variable, given the existence of collinearity. Schwartz et al. (2012) reported the existence of frequent problems of high correlation and multicollinearity between the 10 basic values, particularly when a majority thereof is included together in the analysis. As explained by Falk and Miller (1992), multicollinearity in structural equation modelling is likely to lead to changes in the sign of coefficients, and to a reduction in significance levels.²

In addition, age (in years) and gender (1 = man; 0 = woman) were included as the controls on the TPB antecedents and the entrepreneurial intention. Both age (Bönte et al., 2009; Thorgren et al., 2016) and gender (Hechavarría et al., 2017; Klyver et al., 2013; Murnieks et al., 2020; Shinnar et al., 2012, 2018) have been demonstrated as being substantial predictors of entrepreneurial intent and action, particularly in the student samples (Shirokova et al., 2016; Sieger and Monsen, 2015).

Data analysis

Structural equation modelling (SEM) was employed to test the hypotheses. This modelling enables the simultaneous examination of the relationships between measured variables and latent variables (Gefen et al., 2000; Hair et al., 2017), and is most suitable when our model specification includes several dependent and exogenous variables, implying the need to estimate several regression equations simultaneously (Hair et al., 2017). More specifically, a partial least squares SEM (PLS-SEM or PLS path modelling) was applied. When the aim involves the development of new theories and exploratory research, then this statistical technique is more suitable than covariance-based SEM techniques (such as 'Linear Structural Relations' (LISREL; Gefen et al., 2000; Hair et al., 2017). As indicated by Sánchez-Franco and Roldán (2005), PLS analysis provides results for both the measurement model (reliability and validity of indicators) and the structural model (hypothesised relationships). SmartPLS (v. 3.2.6) software was applied in the analysis.

Results

Measurement model

The proposed model (Figure 2) was run for the full sample, including the country and individualism control variables, with the results presented in Figure 3. The PA construct was defined as formative, since the specific motivations to become an entrepreneur had not to correlate with each other, and the aggregate attitude was formed as the summative evaluation of each of the motives (Hair et al., 2017). All the remaining constructs were measured as reflective, and in the case of the formative construct, meaningful and significant weights indicated sufficient reliability.

The measurement model was verified for the full sample following the standard practice in the field (Hair et al., 2017). The reversed item in the entrepreneurial intention scale was dropped due to its low loading. Similarly, the second item (pa2) in the PA construct was eliminated, since the

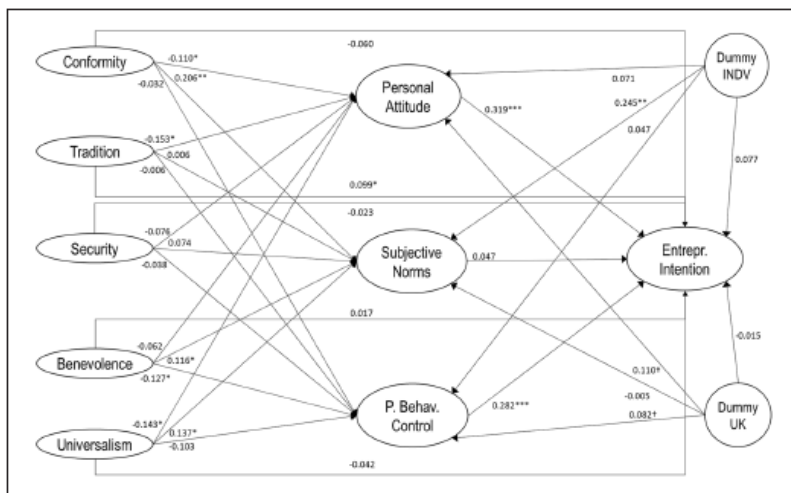


Figure 3. Results of the structural model with both individualism and country dummies. Significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$.

weight was negative and non-significant. The detailed results for the measurement model are reported in Table 3 in Appendix. All the indicators in the remaining reflective constructs had loadings above the usual 0.7 threshold. In addition, reliability was satisfactory (both Cronbach’s alpha and composite reliability were above 0.7), as was construct validity (average variance extracted (AVE), above 0.5). Discriminant validity was assessed through both the Fornell–Larcker criterion and the heterotrait–monotrait ratio, and was satisfactory for all the indicators in each construct.

Structural model

Once measurement validity was confirmed, the results from the structural model were analysed in order to test our hypotheses. Table 2 presents the path coefficients and significance levels for the full sample, and for each of the national subsamples. Table 4 in Appendix reports the descriptive statistics and correlations between the latent variables in the model, and in this respect, the mean entrepreneurial intention in our sample is 3.33 (on a scale from 0 to 6), meaning the respondents report a slightly positive intention level (the mean is above the mid-point 3 in the scale).

In addition, each of our country subsamples has been compared with several related measures in order to crosscheck its representativeness. In particular, the GUESSS survey reports entrepreneurial intention levels for samples of university students in different countries (Sieger et al., 2018). The levels for England (although not the United Kingdom) and Spain are 2.21 and 2.51, respectively.³ These levels are lower than those in our sample (3.56 and 3.13, respectively), but this may possibly be explained by the higher mean age of the GUESSS respondents (37.0 and 28.7 years, respectively, compared with that of approximately 26 years in our sample).

The model in Figure 3 includes the two dummy variables. The UK respondents exhibit PA and PBC that are marginally more positive than is the case for their Spanish counterparts. As per the

Table 2. Path coefficients for the multigroup analysis.

	Full sample		SPAIN		UK		SPAIN-UK
	Path coeff.	SD	Path coeff.	SD	Path coeff.	SD	Path difference
D.INDIV→PA	0.077	0.072	-0.040	0.112	0.219*	0.101	0.259*
D.INDIV→SNs	0.244**	0.073	0.137	0.104	0.356***	0.096	0.220†
D.INDIV→PBC	0.054	0.079	-0.169	0.114	0.250*	0.100	0.418**
D.INDIV→EI	0.076	0.060	0.046	0.088	0.054	0.083	0.007
Conformity→PA	-0.111*	0.056	-0.093	0.100	-0.111	0.087	0.018
Conformity→SNs	0.206**	0.070	0.092	0.100	0.341***	0.097	0.249*
Conformity→PBC	-0.034	0.057	-0.061	0.091	0.006	0.082	0.067
Conformity→EI	-0.060	0.054	0.016	0.070	-0.110	0.083	0.126
Tradition→PA	-0.163**	0.061	-0.150	0.104	-0.094	0.089	0.056
Tradition→SNs	0.006	0.055	-0.034	0.084	0.082	0.078	0.116
Tradition→PBC	-0.016	0.060	-0.065	0.081	0.087	0.083	0.153†
Tradition→EI	0.100*	0.044	0.047	0.059	0.145*	0.066	0.099
Security→PA	-0.056	0.062	-0.136	0.096	-0.021	0.090	0.115
Security→SNs	0.073	0.062	0.017	0.086	0.169†	0.090	0.152
Security→PBC	-0.026	0.066	-0.090	0.098	0.000	0.087	0.090
Security→EI	-0.027	0.047	-0.041	0.070	-0.020	0.066	0.021
Benev.→PA	-0.082	0.056	-0.085	0.092	-0.062	0.076	0.022
Benev.→SNs	0.116*	0.053	0.103	0.078	0.127†	0.073	0.024
Benev.→PBC	-0.138*	0.064	-0.211*	0.094	-0.026	0.073	0.185†
Benev.→EI	0.021	0.049	0.058	0.066	-0.012	0.066	0.070
Univers.→PA	-0.167**	0.064	-0.230*	0.104	-0.062	0.089	0.167
Univers.→SNs	0.138*	0.069	0.053	0.095	0.229*	0.095	0.176†
Univers.→PBC	-0.115†	0.063	-0.230*	0.092	0.023	0.077	0.253*
Univers.→EI	-0.037	0.052	-0.066	0.081	-0.024	0.066	0.042
PA→EI	0.320***	0.052	0.350***	0.086	0.331***	0.070	0.019
SNs→EI	0.046	0.043	0.055	0.069	0.039	0.059	0.016
PBC→EI	0.282***	0.050	0.248**	0.074	0.332***	0.067	0.084

SD: standard deviation; PA: personal attitude; SNs: subjective norms; PBC: perceived behavioural control. Significance levels: † $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

other control variables, age is also positively related to PA and PBC. Meanwhile, gender is marginally significantly related to SNs and EI, and men, in particular, exhibit marginally higher intentions, whereas women expect to receive stronger support from referent others. The results for the individualistic-value dummy show that individualism is positively related to SNs. This means that respondents who accentuate individualistic values tend to expect stronger support from their people of reference. The relationships to PA, PBC and EI are also positive, but not significant, and once the level of individualism is controlled for, the distinctive influence of collectivistic values can then be analysed.

Regarding the values in the conservation dimension, negative relationships with PA (H1a) and PBC (H1c) were expected. In the first case, the path coefficients were negative for all three values, of which two were significant (conformity-PA = -0.110, $p < 0.05$; tradition-PA = -0.153, $p < 0.05$), while the third value is not significant (security-PA = -0.076). Thus, partial support for H1a was found. Regarding PBC, the coefficients were negative for all three values, although not significant. Therefore, no support was found for H1c. Finally, regarding H1b (the relationship of conservation

values with SNs), Figure 3 provided some weak support for this hypothesis, since the conformity-SN coefficient was positive and significant (0.206, $p < 0.01$), while the security-SN (0.074) and the tradition-SN (0.006) were positive but not significant.

With the focus on H2, regarding self-transcendence values and intention antecedents, clear support for hypotheses H2b was found, since both benevolence-SN (0.116, $p < 0.05$) and universalism-SN (0.137, $p < 0.05$) were positive and significant, as expected. The negative relationships from benevolence and universalism to PA (H2a) and PBC (H2c) were also partially supported. In the case of PA, both path coefficients were negative, although only one was significant (benevolence-PA = -0.062; not significant; universalism-PA = -0.143; $p < 0.05$). For PBC, both coefficients were again negative, but only one was significant (benevolence-PBC = -0.127; $p < 0.05$; universalism-PBC = -0.103; not significant). Hence, overall, partial support was found for H2a and H2c.

Figure 3 also shows the path coefficients from the antecedents of intention to the entrepreneurial intention itself. As may be seen, they are fairly robust, with PA and PBC exhibiting positive and significant relationships of a similar size, while for SNs the relationship (although positive) is non-significant. These results are consistent with previous studies (Autio et al., 2001; Krueger et al., 2000; Liñán and Chen, 2009).

Multigroup analysis

Finally, as a robustness check, a multigroup analysis was performed in order to compare the path coefficients for the Spanish and the UK subsamples. To this end, the country dummy had to be dropped. The individualist dummy variable was maintained as a control, as were age and gender. The results for the full sample are presented in Figure 4, while the correlations between the latent variables are included in Tables 5 and 6 in Appendix. As may be easily observed, these results are essentially the same as in Figure 3, with the only notable difference found in the path coefficient from universalism to PBC, which is now marginally significant ($\beta = -0.115$, $p < 0.1$). For the sake of simplicity, the coefficients for age and gender are not shown, although they remain the same as in the previous model.

The path coefficients and significance levels for the multigroup analysis are presented in Table 2. Only four paths are significantly different in each sample, and in four other paths the difference is marginally significant. The effect of individualism on the TPB antecedents is stronger in the United Kingdom for PBC ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.418$; $p < 0.01$), for PA ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.259$, $p < 0.05$), and marginally for SNs ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.220$, $p < 0.1$). Clearly, higher individualistic personal values are associated with more positive antecedents of intention in the United Kingdom, but not with those in Spain.

When the focus is placed on the hypothesised relationships, the differences can be observed as concentrated on the relationship between certain collectivistic values and both SNs and PBC. In the case of SNs, the path from conformity is more positive ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.249$; $p < 0.05$) in the United Kingdom, as is marginally so for universalism ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.176$; $p < 0.1$). In turn, in the case of PBC, the path from universalism is negative in Spain but positive in the United Kingdom ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.253$; $p < 0.05$). There are also marginally significant differences for tradition-PBC ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.153$; $p < 0.1$) and benevolence-PBC ($|\beta_{\text{Spain}} - \beta_{\text{UK}}| = 0.185$; $p < 0.1$). Overall, the interpretation of these differences is that collectivistic values are more strongly related to higher SNs in the UK, whereas in Spain, they are more closely related to lower PBC (in particular, the self-transcendence values).

In each subsample, the results are consistent with the full model presented in section 'Structural model' above, although fewer path coefficients are significant, which is probably due to the smaller

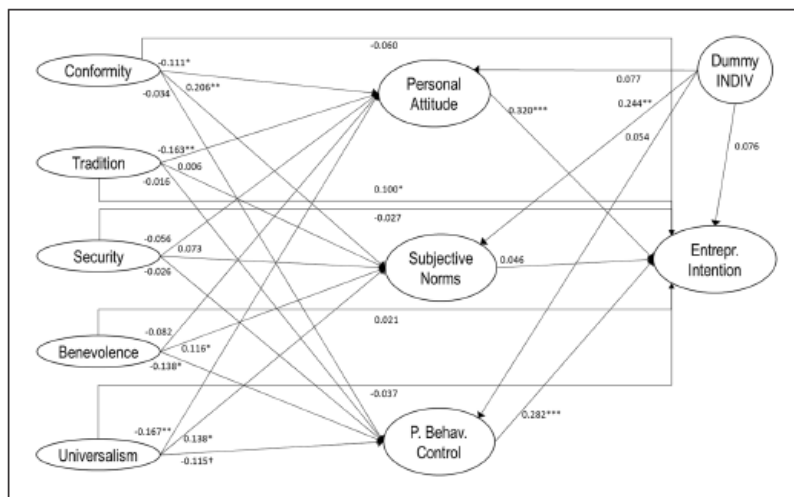


Figure 4. Results of the structural model with individualism dummy. Significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$.

sample sizes. The first set of hypotheses relates to conservation values (conformity, tradition and security) and their relationship with TPB antecedents. In the case of H1a, all the coefficients are negative, as expected, but none are significant. For H1b, five out of six coefficients are positive, as expected (the exception being tradition- $SN_{Spain} = -0.034$, not significant) and, in the UK sample, two of the coefficients are either significant (conformity- $SN_{UK} = 0.341$, $p < 0.001$) or marginally so (security- $SN_{UK} = 0.169$, $p < 0.1$). As per H1c, the three path coefficients for Spain are negative, while the coefficients for the United Kingdom are positive, although none are significant.

The second set of hypotheses concerns the influence of self-transcendence values (benevolence and universalism) on the TPB antecedents. Regarding PA (H2a), the coefficients are negative for both personal values in both subsamples, but only one coefficient is significant (universalism- $PA_{Spain} = -0.230$, $p < 0.05$). In the case of PBC (H2c), the coefficients are negative and significant for the Spanish subsample (benevolence- $PBC_{Spain} = -0.211$, $p < 0.05$; universalism- $PBC_{Spain} = -0.230$, $p < 0.05$), but they are non-significant for the UK subsample. Finally, with respect to H2b, the coefficients are positive in both subsamples, though only significant for the United Kingdom. The path from benevolence is marginally significant (benevolence- $SN_{UK} = 0.127$, $p < 0.1$), whereas the path from universalism is significant (universalism- $SN_{UK} = 0.229$, $p < 0.05$).

Discussion

The main contribution of this article is to highlight the relationship between collectivistic personal values and TPB antecedent variables and, consequently, entrepreneurial intention. Our findings indicate that Schwartz (1992, 1994) and Ajzen's (1991) theoretical frameworks are extremely compatible in predicting entrepreneurial intentions confirming previous studies that have explored this

integration (Liñán et al., 2016; Morales et al., 2019). The empirical analysis has been undertaken through an examination of a sample of working-age students from the United Kingdom and Spain with the results suggesting that collectivistic personal values could represent a major obstacle to start-up rates. More specifically, accentuation of these values leads to a less favourable evaluation (PA) and less perceived ability and control (PBC) regarding the process of new venture creation. This, in turn, implies lower entrepreneurial intention.

In the relationship between collectivistic personal values and SNs, the expected positive effect is found. Nevertheless, it was also found that SNs are not significantly related to EI, which is consistent with previous research (Armitage and Conner, 2001; Autio et al., 2001; Liñán and Chen, 2009; Moriano et al., 2012; Santos et al., 2017). In this respect, it is worth considering alternative specifications of the entrepreneurial intention model in which SNs are proposed to effect PA and PBC (Fretschner and Weber, 2013; Liñán and Chen, 2009). This could compensate for the negative relationship between collectivistic values and PA/PBC. Future research could analyse this possibility.

SNs are measured by multiplying normative beliefs with the motivation to comply with these beliefs (Ajzen, 1991; Ajzen and Fishbein, 1980). Normative beliefs represent the so-called social pressures to perform (or not perform) entrepreneurial behaviour (venture creation) (Ajzen, 1991). Yet, motivation to comply represents the urge to abide by the opinions of other referents (Ajzen, 1991; Belchior and Liñán, 2017). It may be the case that the conservation and self-transcendence dimensions are positively related with the motivation-to-comply element of the SNs. In this case, individuals accentuating collectivistic values will be more inclined to follow recommendations made by referent others, but will not necessarily expect them to support their entrepreneurial aspirations (the normative-belief element of the SNs). In addition, the positive relationship hypothesised herein may be compensated for by another negative influence that we have overlooked. For instance, potential entrepreneurs may have a conflicting view of their referent others. As noted above, they may expect support based on the 'moral obligation' towards in-group members (Hockerts, 2017), but may also believe referent others will not completely endorse the idea of the individual creating a new venture. These mixed feelings could explain the lack of significant results and differences between the two countries. It may be argued that the influence of social norms on entrepreneurial intentions is much broader and more complex than that of the other two TPB variables. That is, the SNs exhibit an effect different from that of PA and PBC. Future research should clarify this relationship through a more specifically designed research analysis.

Related to this difference, previous research suggests that the relative strength of the TPB antecedents in predicting entrepreneurial intention may differ depending on the industry and national sample under study (Kautonen et al., 2015; Kolvereid and Isaksen, 2006; Krueger et al., 2000). In this regard, certain conflicting results exist. For instance, some studies find a significant influence of SNs on entrepreneurial intention (Kautonen et al., 2015; Kolvereid and Isaksen, 2006), while others (as is our case) find no such influence (Liñán et al., 2016; Moriano et al., 2012). The possibility exists that the specific personal-value structure acts as a moderator in these relationships.⁴ In this respect, Sieger and Monsen (2015) found that controllability perceptions, which could be related to self-direction values, might moderate the attitude-intention relation. Based on our results, emphasising collectivistic values decreases PA and PBC but increases SN perceptions. At the same time however, these values could also weaken the influence of PA/PBC and/or strengthen the influence of SNs on entrepreneurial intentions. This may be so since, for people accentuating collectivistic values, the opinion of their group members could have greater influence upon entrepreneurial intention than may be the case for those emphasising individualistic values (Moriano et al., 2012). In this respect, Shinnar et al. (2018) found that women are less likely to act on their intentions. Based on our results, the different structures of values could constitute a significant moderator that

explains this difference, since women and men tend to exhibit different value priorities (Gupta et al., 2013). Future research could analyse whether specific personal values (either alone or in combination with other values) moderate the relationship between TPB antecedents and entrepreneurial intention.

Implications

Schwartz's (1992, 1994) value theory proposes a circular structure of values. Emphasis on certain values is associated with a low importance being attached to the opposing values. With this idea in mind, most research to date has focused on individualistic personal values, assuming that the relevance of the opposing collectivistic values will be low so they need not be considered. In turn, our research shows that, even after controlling for the level of individualistic personal values, the stress attached to collectivistic values is important and has an effect on the motivational antecedents of intention. That is, for any given level of importance ascribed to individualistic values, a higher relevance of self-transcendence or conservation values will imply a less favourable PA and a lower PBC, together with SNs of a more favourable nature. This has significant implications for entrepreneurship scholars and policy-makers. The whole value structure of individuals, not only certain values, such as self-direction, stimulation and achievement, is relevant in the assessment of their entrepreneurial potential. Nevertheless, further research is needed to understand the interaction between the values in each value dimension.

In particular, self-transcendence values are negatively associated with PA and PBC. However, the preoccupation regarding the welfare of others (Schwartz, 1994), inherent to these values, is clearly related to social entrepreneurship. In this regard, there is a contemporary discussion on morals and ethics involving more sustainable enterprises (Anderson and Smith, 2007). There have also been some calls to bring about a discourse that is more closely related to morality and ethics in entrepreneurship research (Brenkert, 2009; Dey and Steyaert, 2016; Harris et al., 2009; Morris et al., 2002). In this respect, previous findings show that those with individualistic personal values place less emphasis on understanding the reasoning and judgement behind the moral perspective that individual agents assume (Dey and Steyaert, 2016; Gielnik et al., 2015). By contrast, collectivistic values promote thoughts, feelings and behaviour towards connecting with others, and within one's own group (Triandis and Gelfand, 2012). From this perspective, there may be some relevant qualitative differences between entrepreneurs high in collectivistic values and those who do not prioritise these values. Arguably, therefore, accentuating these collectivistic values may decrease the chances of new venture creation, although doing so may contribute towards a more socially responsible behaviour on the part of the entrepreneur. Future research could provide new insights in this respect.

There are obvious implications related to these results, if confirmed, for entrepreneurship education. Despite the relative stability of values (Bardi et al., 2009), they are not completely fixed and may be modified through, for instance, education (Myyry et al., 2013). Education opens up the mind to new knowledge and helps develop fresh and new personal perspectives, which often then make the individual reconsider her or his value priorities (Schwartz, 2010, 2012). In the particular case of Business Schools, there is evidence of value change even when no specific value-transmitting activities are included in the academic curriculum (Arieli et al., 2016). This process takes place not only through purposeful actions by teachers, but also through peer interaction, which constitutes a key mechanism in value socialisation (Racko et al., 2017). More generally, Bardi and Goodwin (2011) identified several mechanisms leading to value change, including priming, adaptation, identification, consistency maintenance and direct persuasion attempts. Most of these mechanisms are likely to be present in educational programmes. In this respect, Westhead

and Solesvik (2016) found that women and men benefit differently from entrepreneurship education. These differences could be explained by the initial personal-value structure and value-changes during education. Value-transmitting training activities therefore, may be devised to contribute towards modifying the value structure of the participants. This reflects previous research that emphasised the importance of developing a more conscious entrepreneurial mind set (Krueger, 2007; McGrath and MacMillan, 2000; McMullen and Shepherd, 2006). Nevertheless, further research that would enable the most promising combination of values is still required, not only for the promotion of entry into entrepreneurship, but also for fostering responsible and sustainable behaviour as an entrepreneur.

The comparison with the general GUESSS results for the United Kingdom and Spain has shown that our sample of younger postgraduate students exhibit higher intentions than is the case for a wider sample of older students (possibly having returned to education after some experience at work). This raises another interesting point regarding the predictive ability in the TPB. A higher entrepreneurial intention need not turn into action. Scholars, such as Liñán and Chen (2009) and Van Gelderen et al. (2015), typically find that motivational antecedents explain 40%–60% of the variance in the entrepreneurial intention, and though this renders the TPB framework the most accurate model for the prediction of intentions (Schlaegel and Koenig, 2014), Kautonen et al. (2015) report that the ability of this model to predict behaviour is considerably lower, typically in the range of 20%–30%.

Hence, a substantial proportion of unexplained behaviour still requires clarification. The value structure, including both individualistic and collectivistic value dimensions, may hold the key to unlock this question. In this respect, contemporary research has analysed the role of security as a job motivation (Delanoë-Gueguen and Liñán, 2019), closely linked to the personal value of security. Such results indicate that security motivation not only decreases intention, but also has a direct negative effect on behaviour. Again, further research should be undertaken to explore the role of personal values, both collectivistic and individualistic, in the intention–behaviour link.

Limitations

This study, like any other, is not without its limitations. The sample is restricted to two regions in two different developed countries. Cultural studies have shown that individualistic values tend to prevail in these countries, while collectivistic values predominate in developing countries (Schwartz and Bardi, 2001). A sample that originates from a less developed economy may yield disparate results. Similarly, even though young adults are more inclined to start a new venture, other groups of the population are also relevant in this respect. The results found here may be inconsistent with those from a sample of an older population, or one with different characteristics (e.g. a lower level of education). For these reasons, future research should test the proposed research model on various countries and population segments prior to any generalisations being drawn.

Conclusion


To the best of our knowledge, this is one of few studies that analyses the relationship between collectivistic personal values and entrepreneurial intention. The results offer certain relevant insights concerning the importance of these values in the entrepreneurial process. These values are negatively related to attraction and perceived control towards entrepreneurship but positively related to SNs. This influence persists, despite controlling for the level of individualism within respondents and hence, collectivistic values exert an influence of their own on the formation of entrepreneurial intentions, over and above that of the more widely studied individualistic values. These results, if

confirmed, may substantially transform the study of values in entrepreneurship. The search for the key values that increase intention could well prove futile. Instead, it may turn out to be the specific combination of all individualistic and collectivistic values that is relevant in this process. Furthermore, the implications of accentuating values, such as universalism and benevolence, may be related to social entrepreneurship intentions and behaviour. This article therefore, opens up several highly interesting avenues for further research and we trust that the entrepreneurship research community will find them to be worthy of exploration.

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Notes

1. Social entrepreneurship could be a possible exception here. However, our argument refers to entrepreneurship in general.
2. The analysis was carried out with the continuous individualist-value dummy variable, but strong collinearity was present. For this reason, a dichotomic individualistic dummy variable had to be used.
3. The figures are corrected to make the response <https://orcid.org/0000-0001-6212-1375> the GUESSSS survey reply options range from 1 to 7, while <https://orcid.org/0000-0001-6212-1375>.
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Appendix

Table 3. Measurement model indicators.

Indicators		Loadings	Alpha	CR	AVE
Entrepreneurial intention	ei1	0.904	0.938	0.939	0.843
	ei2	0.916			
	ei4	0.946			
	ei5	0.906			
Subjective norms	sn1	0.869	0.783	0.837	0.692
	sn2	0.883			
	sn3	0.735			
Perceived behavioural control	pbcl	0.737	0.850	0.858	0.570
	pbcl2	0.715			
	pbcl3	0.765			
	pbcl4	0.765			
	pbcl5	0.743			
	pbcl6	0.800			
Personal attitude	pa1	0.349 ^a	-	-	-
	pa3	0.254 ^a			
	pa4	0.342 ^a			
	pa5	0.112 ^a			
	pa6	0.422 ^a			

CR: composite reliability; AVE: average variance extracted.

^aIndicator weights for the formative construct (PA).

Table 4. Means, SDs and correlations between latent variables for the full sample.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11.
1. Conformity	3.273	0.876	1.000										
2. Tradition	2.378	0.856	0.349	1.000									
3. Security	3.482	0.827	0.157	-0.025	1.000								
4. Benevolence	3.963	0.647	-0.093	-0.021	-0.334	1.000							
5. Universalism	3.955	0.738	-0.251	-0.013	-0.275	0.366	1.000						
6. PA	3.631	1.081	-0.172	-0.224	-0.030	-0.118	-0.156	1.000					
7. SNs	3.550	1.397	0.093	-0.029	-0.009	0.059	0.005	0.321	1.000				
8. PBC	4.131	1.015	-0.023	-0.024	0.026	-0.186	-0.160	0.501	0.247	1.000			
9. EI	3.332	1.691	-0.106	-0.007	-0.053	-0.120	-0.162	0.527	0.214	0.505	1.000		
10. Individual dummy	0.494	0.501	-0.323	-0.329	-0.192	-0.297	-0.424	0.264	0.073	0.152	0.230	1.000	
11. Country dummy	0.484	0.500	-0.009	-0.151	0.219	-0.271	-0.283	0.175	-0.005	0.132	0.123	0.215	1.000

SD: standard deviation; PA: personal attitude; SNs: subjective norms; PBC: perceived behavioural control; EI: entrepreneurial intention.

Table 5. Means, SDs and correlations between latent variables for the Spanish sample.

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Conformity	3.194	0.844	1.000									
2. Tradition	2.397	0.806	0.387	1.000								
3. Security	3.269	0.869	0.267	0.110	1.000							
4. Benevolence	4.015	0.655	-0.139	0.025	-0.296	1.000						
5. Universalism	4.036	0.766	-0.264	-0.051	-0.278	0.384	1.000					
6. PA	3.426	1.114	-0.098	-0.174	-0.080	-0.117	-0.170	1.000				
7. SNs	3.553	1.411	0.005	-0.067	-0.032	0.070	-0.011	0.441	1.000			
8. PBC	4.005	1.076	0.039	-0.019	0.051	-0.220	-0.180	0.484	0.289	1.000		
9. EI	3.128	1.630	0.018	-0.009	-0.081	-0.083	-0.200	0.524	0.287	0.464	1.000	
10. Individual dummy	0.390	0.489	-0.306	-0.324	-0.250	-0.317	-0.444	0.196	0.075	0.050	0.159	1.000

SD: standard deviation; PA: personal attitude; SNs: subjective norms; PBC: perceived behavioural control; EI: entrepreneurial intention.

Table 6. Means, SDs and correlations between latent variables for the UK sample.

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Conformity	3.358	0.903	1.000									
2. Tradition	2.358	0.908	0.324	1.000								
3. Security	3.711	0.713	0.057	-0.100	1.000							
4. Benevolence	3.906	0.636	-0.061	-0.162	-0.288	1.000						
5. Universalism	3.868	0.698	-0.265	-0.065	-0.167	0.225	1.000					
6. PA	3.853	1.001	-0.235	-0.215	-0.042	-0.085	-0.094	1.000				
7. SNs	3.547	1.385	0.172	0.001	0.024	0.044	0.031	0.183	1.000			
8. PBC	4.265	0.930	-0.080	0.013	-0.077	-0.083	-0.072	0.434	0.197	1.000		
9. EI	3.551	1.731	-0.214	0.030	-0.086	-0.103	-0.067	0.558	0.147	0.550	1.000	
10. Individual dummy	0.605	0.490	-0.352	-0.294	-0.255	-0.176	-0.322	0.328	0.077	0.222	0.262	1.000

SD: standard deviation; PA: personal attitude; SNs: subjective norms; PBC: perceived behavioural control; EI: entrepreneurial intention.

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From personal values to entrepreneurial intention: a systematic literature review

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Abstract

Purpose – This systematic literature review (SLR) analyses the existing contributions, jointly studying personal values (PVs) and intentions in entrepreneurship. Despite the long tradition that these two constructs enjoy in social psychology, they have only recently been considered together in entrepreneurship research.

Design/methodology/approach – To conduct this SLR, three widely used databases were searched (Scopus, ABI-INFORM and Web of Science). A total of 451 initial hits were successively narrowed down to a final list of 22 journal articles matching the inclusion criteria. This field of research is very recent since the selected papers have all been published since 2011, half of which have appeared since 2017.

Findings – The predominant approach in these papers was the consideration of PVs as antecedents in the formation of entrepreneurial intentions (EIs). In particular, basic human values (BHV) theory for PVs and the theory of planned behaviour (TPB) for intentions are the prevalent frameworks. The influence of PVs differs notably depending on the motivational antecedent of intention being considered and also on the specific (general vs social) EI analysed.

Originality/value – This SLR is, to the best of the authors' knowledge, the first review that addresses this fast-growing area of research. It provides a comprehensive mapping of the contributions to date as well as an integrative conceptual framework to synthesise accumulated knowledge. It also identifies subsisting knowledge gaps and a number of future research opportunities.

Keywords Personal values, Entrepreneurial intention, Systematic literature review, Integrative framework

Paper type Literature review

Introduction

For decades, entrepreneurship scholars have tried to increase their understanding of the entrepreneurial process (Galanakis and Giourka, 2017; Zahra *et al.*, 2014). In particular, the entrepreneurial intention (EI) has attracted increasing attention as a key driver in predicting new venture creation behaviours (Bird, 1988; Kautonen *et al.*, 2015). The theory of planned behaviour (TPB) is undoubtedly the most widely used model in EI research (Liñán and Fayolle, 2015; Schlaegel and Koenig, 2014).

Intentions are considered the single best predictor of behaviour (van Gelderen *et al.*, 2018; Krueger and Carsrud, 1993). In this respect, intentions reflect the magnitude of the effort the individual is prepared to exert to perform a certain behaviour (Ajzen, 1991). Intention itself is the better established and the best empirically tested antecedent of entrepreneurial behaviour, according to the consolidated empirical (Delanoë-Gueguen and Liñán, 2019; Kautonen *et al.*, 2015; Kautonen *et al.*, 2013; Liñán and Rodríguez-Cohard, 2015; van Gelderen *et al.*, 2018) and theoretical literature reviews (Fayolle and Liñán, 2014; Krueger, 2007; Krueger and Carsrud, 1993).

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Research has striven to delve into the understanding of EI formation. For instance, several additional variables have been considered, such as the entrepreneurial identity (Pfeifer *et al.*, 2016). Other authors, in turn, advocate the analysis of the role of personal values (PVs) in the entrepreneurial process (Fayolle *et al.*, 2014). Related to this, certain studies have found that PVs play a key role in the entrepreneurial decision-making process. Thus, according to Gorgievski *et al.* (2011), the criteria to define success in entrepreneurial endeavours is related to prioritised PVs. Likewise, Bolzani and Foo (2018) associated the decision to internationalise with the PV system.

According to Veroff and Smith (1985), values are cognitive, deliberate and evaluative determinants of goals. Moreover, they establish the conception of the desirable (Kluckhohn, 1951). PVs represent the cognitive recognition of the correct way to behave or the correct end state to strive for (Rokeach, 1973). The importance of PVs lies in their capacity to guide goal setting and to act as the decision criteria in ambiguous or uncertain scenarios (Feather, 1995; Gorgievski *et al.*, 2018). These PVs are important in explaining human actions (Bardi and Schwartz, 2003). They have been regarded as one of the most significant drivers in guiding intentions and subsequent behaviour (Maio *et al.*, 2001; Murray *et al.*, 1996).

The majority of research studies found that individualistic-like PVs (such as achievement, stimulation and self-direction) are those that exhibit a positive relationship with EIs (Liñán *et al.*, 2016; Yang *et al.*, 2015). In contrast, more recently, Hueso *et al.* (2020) found that collectivistic-like values are also related to EIs, although the relationship remains mostly indirect. Nevertheless, there are still relatively few studies analysing the relationship between PVs and EIs (Tipu and Ryan, 2016). Moreover, existing research is only partial and lacks an integrative perspective regarding this relationship. Therefore, the present research study aims to identify and analyse the extant literature on the role that PVs play in the formation of EIs. To this end, all articles published in academic journals up until the beginning of 2020 have been examined.

As a result of this literature review, a general overview of the accumulated knowledge on the relationship between PVs and EIs can be presented. This is important due to the role that PVs play in prompting decisions and actions (Feather, 1980, 1995), especially given the inherent complexity in entrepreneurial behaviour. Choosing to become an entrepreneur has far-reaching implications for the individual. Therefore, personal goals and priorities are likely to affect EIs through several mechanisms. The present research study identifies several of these mechanisms, although others still need to be addressed.

Additionally, the study proposes an integrative conceptual framework where the reviewed literature is synthesised, including potential relationships between PVs and other elements in the entrepreneurial process. Based on this framework, the manuscript identifies the specific knowledge gaps and proposes a future research agenda in this academic field. This study may therefore become a most relevant reference point for researchers in this field.

In the next section, the relevant theoretical framework is reviewed. The Research Methodology section then details how this literature review identifies the research work to be included. Section 4 describes the findings from our review. Section 5 discusses those results and considers their implications and is followed by a brief conclusion section.

The theoretical framework

Both the concept of PVs and that of intention originate from the literature on psychology. In particular, the work by Rokeach (1973) is considered to be one of the fundamental contributions to the theory of human values. Similarly, the work by Fishbein in collaboration with Ajzen (Fishbein and Ajzen, 1975) is also regarded as foundational in the study of behavioural intentions. However, there has been relatively little integration of both concepts within the entrepreneurship field of research.

Personal values

The importance of PVs for each individual has long been recognised (Kluckhohn, 1951). Without a hierarchically organised system of PVs, individuals would not be able to make decisions and pursue their goals in life (Allport, 1961). Values should be given centrality as descriptive and explanatory concepts and, further, personality could be understood as a system of values (Rokeach, 1973). PVs are considered as guiding principles in life, where individual values remain relatively stable across situations and during human lifespan (Schwartz, 1992). Values are ordered by the relative importance that the individual attaches to each of them (Allport, 1961; Maslow, 1959; Pepper, 1958; Rokeach, 1973). The prevalence of certain values over others determines the individual's "dominating force" that conditions their day-to-day decisions (Allport, 1961, p. 543).

Values affect how people view situations, consider their alternatives and eventually act (Holland and Shepherd, 2013). These abstract structures, held as "organized summaries of experience", provide "continuity and meaning under changing environmental circumstances" (Feather, 1980, p. 249). However, definitional inconsistency remains epidemic in values theory and research (Rohan, 2000). The importance of people valuing priorities in understanding and predicting attitudinal and behavioural decisions has been emphasised (Rohan, 2000). The understanding of these PVs is important because they induce valences on possible actions (Feather, 1995). Therefore, the PV structure does indeed affect the individual perspective and how individuals make decisions and behave.

PVs guide individuals' intentions, choices and executed behaviours (Bardi and Schwartz, 2003). Values are about desirable end states or behaviours and transcend specific situations. As a consequence, they guide selection or evaluation of behaviour and events (Rokeach, 1973; Schwartz and Bilsky, 1987). Individuals behave according to their PV structure because they need a level of consistency between their beliefs and actions (Bardi and Schwartz, 2003; Rokeach, 1973). For this reason, PVs have been identified as a key factor in the decision-making process (Feather, 1980; Rokeach, 1973; Bardi and Schwartz, 2003).

Schwartz's (1992) theory of basic human values (BHV) is probably the most widely used framework to explain PVs. It identifies ten basic values that are prevalent in all individuals and these values form a quasi-circumplex structure based on the inherent conflict or compatibility between their motivational goals (Schwartz and Bilsky, 1987). Adjacent values are compatible, while opposing values are conflicting. The ten basic values may be grouped into four value dimensions (Schwartz, 1992): self-enhancement (including power and achievement values), openness to change (stimulation and self-direction values), self-transcendence (universalism and benevolence) and conservation (tradition, conformity and security). Hedonism would be placed between achievement and stimulation in the value circumplex and shares elements of the two corresponding value dimensions; for this reason, it is usually excluded when the value dimensions are studied (Gorgievski *et al.*, 2018). According to this circumplex structure, self-enhancement and self-transcendence are opposing dimensions, as is openness to change and conservation.

Entrepreneurial intention models

The literature considers that intention models are central to ascertaining how individuals behave and develop their actions (Galanakis and Giourka, 2017). Therefore, a stronger intention to carry out this behaviour should reflect itself in a higher likelihood of it being performed (Ajzen, 1991). Behaviours are the consequence of affective (feeling and emotional responses), cognitive (beliefs, memories and perceptions of events) and conative variables (intentions and predictions about individual behaviour in response to an event) (Fishbein and Ajzen, 1975).

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Entrepreneurship (or new venture creation) qualifies as a voluntary and conscious behaviour under volitional control (Bird, 1988; Krueger and Carsrud, 1993; Schlaegel and Koenig, 2014). Therefore, EIs are widely studied as a relevant antecedent for entrepreneurial behaviour (Delanoe-Gueguen and Liñán, 2019; Kautonen *et al.*, 2015; van Gelderen *et al.*, 2018). EIs are individual states of mind that direct attention, experience and actions towards the idea of starting up a new venture (Bird, 1988).

In entrepreneurship research, the TPB stands out as the most prominent model to explain the start-up intention (Krueger and Carsrud, 1993; Kautonen *et al.*, 2013, 2015). In this model, the constructs explaining the individuals' EIs include the personal attitude (PA) towards entrepreneurship, subjective norms (SNs) and the perceived behavioural control (PBC). First, PA refers to the positive or negative evaluation or appraisal of the entrepreneurial behaviour and its consequences. Second, SNs symbolise the support expected from the individual's close environment (family, friends, relatives, etc.) if the individual exhibited start-up behaviours. Third, the PBC indicates the perceived ease or difficulty in undertaking entrepreneurial actions (Ajzen, 1991; Krueger and Carsrud, 1993; Kautonen *et al.*, 2013, 2015).

The number of research studies into EIs is substantial (Liñán and Fayolle, 2015) and continues to grow (Donaldson, 2019). This research has identified a considerable amount of variables affecting the formation of intentions that include both personal and context variables (Liñán and Fayolle, 2015). In particular, PVs have been considered a motivational determinant of EIs (Fayolle *et al.*, 2014).

Personal values and entrepreneurial intentions

Starting a venture is a complex process that involves the realisation of several tasks and usually includes considerable time delays (Galankis and Giourka, 2017; Kautonen *et al.*, 2015). For this reason, it may be best described as a goal-directed behaviour (Bagozzi and Kimmel, 1995). Therefore, since PVs are the guiding principles that help both set and strive towards achieving personal goals (Rokeach, 1973; Schwartz, 1992), they should be relevant in the determination of EIs.

Despite this fact, few studies consider PVs as an antecedent of EIs (Liñán and Fayolle, 2015). Although research on the values of entrepreneurs remains relatively scarce (Holland and Shepherd, 2013), it indicates a significant relationship between individualist values and entrepreneurial behaviour (Liñán *et al.*, 2016). Similarly, individualist values positively predict the EIs of respondents (Liñán *et al.*, 2016; Yang *et al.*, 2015). More recently, additional research has confirmed this relationship (Gorgievski *et al.*, 2018; Morales *et al.*, 2019).

Individualistic PVs, such as achievement, power and self-direction, are considered as being more consistent with entrepreneurship (Gorgievski *et al.*, 2018) since they emphasise the pursuit of goals that may be achieved through this career choice. This influence may depend on the predominating cultural values in society and is thus affected by the context (Liñán *et al.*, 2016; Morales *et al.*, 2019; Munir *et al.*, 2019). On the other hand, research on the role of so-called collectivistic PVs on EIs is even scarcer. It finds support for the argument that certain collectivistic values could have a small indirect positive effect on EIs (Hueso *et al.*, 2020). Therefore, there seems to be some conflict and substantial gaps in our knowledge regarding the PVs–EIs relationship. The literature review carried out in this paper may well contribute to shedding light on this relationship.

The research methodology

In order to perform this systematic review of the literature on PVs and EIs, the present research study follows previous methodological recommendations (Armitage and Keeble-Allen, 2008; Tranfield *et al.*, 2003; Pittaway *et al.*, 2014; Rauch, 2020). Literature

reviews are most useful to systematise knowledge in any field since they serve to identify, evaluate and relate previous contributions in the research area (Mulrow, 1994). The distinct feature of a systematic literature review (SLR) is a well-established procedure that specifies the method employed to identify, select, assess and synthesise the evidence derived from previous publications (Armitage and Keeble-Allen, 2008; Boell and Cecez-Kecmanovic, 2015). It offers a normalised procedure to investigate the existing literature: a method that is replicable, transparent, objective, unbiased and rigorous (Boell and Cecez-Kecmanovic, 2015). This SLR is a domain-based review. It synthesises and extends a body of literature that resides in the same substantive domain (Palmatier *et al.*, 2018).

The relevant search terms were selected in accordance with the aims of this study, as shown in Figure 1: personal* and value* and entrepreneur* and intent*. The search was carried out within the Scopus, ABI-INFORM and Web of Science databases. These three different databases were selected to make the search more comprehensive. The search terms were included in the following fields: article title, abstract and keywords. The time frame for the search was left open and unrestricted to any dates (the last search was carried out on 22nd March, 2020).

This search initially yielded 491 matches with 181 duplicates, which were immediately removed. The remaining 310 studies included 27 conference papers, six book chapters, four dissertations, seven non-academic journals and 27 non-English-language papers. All of these were excluded to avoid possible variability in the peer review process (Jones *et al.*, 2011). The remaining 239 publications were content analysed to confirm their relevance. Publication dates ranged from 1992 (one paper) to 2001 (one paper) and showed a clear upward trend throughout the years up to 2019 (60 studies). The year 2020 (with five papers) remains incomplete. This is presented in Figure 2. Therefore, the studies jointly mentioning PVs and EIs are very recent and their production rate is also increasing very rapidly.

Each of these 239 papers was read by one of the authors to confirm its relevance according to our conceptual boundaries. First, 49 research papers were excluded. Despite the use of the key terms, they were not focussed on either EIs or PVs. A second realisation was that up to 103 papers were focussed on EIs, but they used the term "values" in a very loose manner not referring to PVs. These include papers on entrepreneurship education, which is generally argued should help instil "entrepreneurial values" in the participants and papers measuring

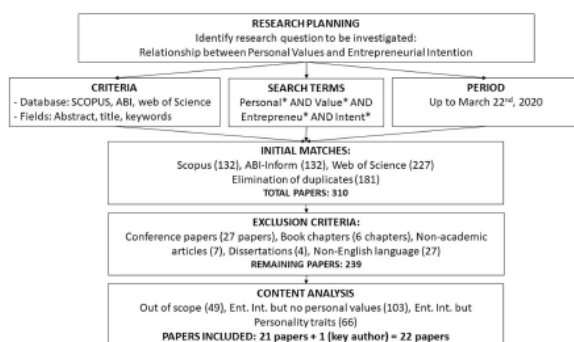


Figure 1. Steps in the systematic literature review

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attitudes through “expectancy value theory”. In other words, the term “value” is used with the meaning of “valuable” or “worthy” or “characteristic” but not as personal goals or guiding principles (Schwartz, 1992). Several papers analysed “social values” as an indirect measure of culture or SNs, which again falls outside the scope of the study.

There are 66 other papers using the term “values” in the title, abstract or keywords but are effectively analysing “personality traits”. Several of these papers analysed the Big Five personality traits (e.g. Nga and Shamuganathan, 2010) or other personality variables such as locus of control (e.g. de Pillis and Reardon, 2007), risk-taking propensity (e.g. Duffy *et al.*, 2006), ability to identify opportunities (e.g. Pílková *et al.*, 2017) and narcissism and Machiavellianism (e.g. Wu *et al.*, 2019). Personality traits and PVs are both important in the configuration of the individual’s mind. However, consolidated results from the psychology literature consider traits and values as distinct constructs (Olver and Mooradian, 2003). Traits are more biologically based (Goldberg, 1993; McCrae and Costa Jr, 2008), whereas values are a product of a person’s environment, including culture, education, parental upbringing and life events (Rokeach, 1973). PVs reflect an individual’s intentional goals and intentional commitments, while personality traits do not (Bilsky and Schwartz, 1994).

After the screening process, 21 documents were selected for inclusion. As a final check to guarantee comprehensiveness, additional relevant works from the key authors (authors of two or more of these 21 papers) were sought. One additional paper was thus found (Gorgievski *et al.*, 2018), thereby yielding a total of 22 final papers included in the SLR. This additional paper was overlooked in the initial systematic search because it did not use the keyword “personal” in the search fields (instead, it used “human” and “individual”).

Findings

Results are very recent, in general. The years of publication range from 2011 to 2020, half of which (11 papers) have appeared from 2017 onwards (see Figure 2). Thus, the initial findings are that the study of PVs and EIs is a very novel area of research and that the term “value” is used with very different meanings and not only as “personal guiding principles”. In fact, it is only in 2011 that any papers using PVs in EI research are found at all.

Synthesis of the results

Summary information regarding the 22 articles matching the inclusion criteria is presented in Table A1. Most of the papers are empirical and employ quantitative techniques, except for one theoretical, two qualitative and one mixed-method (qualitative and quantitative) articles. The great majority of articles consider PVs as an antecedent that aids in the explanation of EIs. The only exceptions are the papers by Farrington *et al.* (2011) and by Geldhof *et al.* (2014).

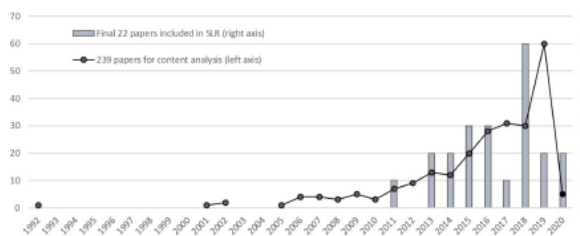


Figure 2.
The time frame for the systematic literature review

The former compares the work values associated with entrepreneurship in two different samples (business students and actual business owners) and finds that students exhibit values of a more idealistic nature than in the case of firm owners. In turn, Geldhof *et al.* (2014) used both PVs and EIs as predictors of entrepreneurial behaviours and their results indicate that entrepreneurial career values can predict innovation-related behaviours. Since the objective of this research is the analysis of papers jointly studying PVs and EIs, these two articles were maintained. They also provided some insight for the development of an integrative conceptual framework (see subsection below).

The remaining 20 papers consider PVs as direct or indirect antecedents of EIs. Here, a theoretical paper is included (Fayolle *et al.*, 2014), which not only proposes this to be the case but also argues that PVs may moderate the intention–action link. Furthermore, two other papers propose and test PVs as direct antecedents of the entrepreneurial attitude (Sihombing, 2018; Yang *et al.*, 2015), but they do so within a framework in which attitudes explain the intention to start up (Yang *et al.*, 2015) or the intention to quit (Sihombing, 2018). Finally, there are two qualitative papers that analyse the goals motivating entrepreneurial decisions: either internationalisation (Bolzani and Foo, 2018) or starting up (Muhammad *et al.*, 2019). The former considers PVs (as defined by Schwartz, 1992) as the more abstract values that motivate the internationalisation decision. The latter, in turn, uses no specific framework for PVs, but the values elicited are very close to some of Schwartz’s (1992) values.

As shown in Table 1, the majority of papers (15) focus on the intention either to start up a commercial venture or to become an entrepreneur in general. In turn, there are four studies specifically focussing on the social entrepreneurial intention (SEI). Finally, there are three papers that centre on the intention to perform other entrepreneurial behaviours. They include the internationalisation intention (Bolzani and Foo, 2018), the green EI (Ye *et al.*, 2020) and the intention to quit (Sihombing, 2018). These papers analysing alternative intentions are all very recent, which indicates that the study of PVs is expanding, not only in quantity (number of studies) but also in scope.

Similarly, the theoretical approach used in each paper to define PVs differs notably (see Table 2). Overall, there are six papers focussing on work values, of which Farrington *et al.* (2011) and Geldhof *et al.* (2014), as mentioned above, jointly analyse PVs and EIs to explain behaviour. Also, three of these papers focus on the relationship with general start-up

Personal values theory	Type of entrepreneurial intention		
	Start-up intention	Social entrepreneurial Intention	Other intention
Basic human values	Fayolle <i>et al.</i> (2014), Espiritu-Olmos and Sastre-Castillo (2015), Yang <i>et al.</i> (2015), Liñán <i>et al.</i> (2016), Schmidt and Tatarko (2016), Fernandes <i>et al.</i> (2018), Gorgievski <i>et al.</i> (2018), Hueso <i>et al.</i> (2020)	Sastre-Castillo <i>et al.</i> (2015), Kruse <i>et al.</i> (2019)	Bolzani and Foo (2018)
Work values	Farrington <i>et al.</i> (2011), Hirschi and Fischer (2013) ^a , Geldhof <i>et al.</i> (2014), Tipu and Ryan (2016), Lechner <i>et al.</i> (2018) ^a	Kunttu <i>et al.</i> (2017) ^b	
Rokeach			Sihombing (2018)
Other PVs	Watchravesringkan <i>et al.</i> (2013), Muhammad <i>et al.</i> (2019)	Bacq and Alt (2018)	Ye <i>et al.</i> (2020)

Note(s): ^aHirschi and Fischer (2013) defined work values to match Schwartz’s (1992) personal value dimensions. Lechner *et al.* (2018) took Hirschi and Fischer (2013) as a reference and adopted a similar approach ^bKunttu *et al.* (2017) compared social entrepreneurial intentions with traditional start-up intentions

Table 1. Combinations of personal value and entrepreneurial intention theories used in the papers selected

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intentions. Amongst these three, [Hirschi and Fischer \(2013\)](#) specifically merge the concept of work values with PVs to analyse the effect on EIs. Similarly, [Lechner et al. \(2018\)](#) also defined work values as a reflection of PVs, with explicit reference to [Schwartz's \(1992\)](#) framework and to [Hirschi and Fischer's \(2013\)](#) paper. In both cases, significant gender differences are found. In contrast, [Tipu and Ryan \(2016\)](#) explored how work ethics affect the individuals' EIs. The sixth paper ([Kunttu et al., 2017](#)) compares the effect of work values on socially oriented EIs and goals, relative to traditional EIs. They find altruism to be positively related to SEI (but not to EI), while EI is related to security (negatively) and to intrinsic reward (positively).

Additionally, there are other approaches to measure PVs which are not specifically termed as work values but remain relatively close. This is the case of self-actualisation and social affiliation values ([Watchravesringkan et al., 2013](#)), empathy ([Bacq and Alt, 2018](#)), reasons/motives to start up ([Muhammad et al., 2019](#)) and altruistic values ([Ye et al., 2020](#)). [Sihombing \(2018\)](#), in turn, adopted [Rokeach's \(1973\)](#) approach to measure PVs. She observed that instrumental values are not relevant in predicting the entrepreneurial attitude, whereas terminal values are positively related to this attitude. Finally, the remaining 11 papers used BHV theory ([Schwartz, 1992](#)) to conceptualise PVs, which renders this theory as the most common framework (more detailed results are given below).

Regarding the specific EI model, ten papers explicitly adopted [Ajzen's \(1991\)](#) TPB, which is by far the most common framework for EIs. Only one of these papers focusses on the SEI ([Kruse et al., 2019](#)), while the remaining nine papers use the TPB to analyse the general intention to start up a new business. The theoretical contribution by [Fayolle et al. \(2014\)](#) has been included here, together with one of the qualitative papers ([Muhammad et al., 2019](#)). The remaining papers adopting a TPB framework carry out a quantitative empirical analysis. In particular, there are five quantitative papers integrating [Schwartz's \(1992\)](#) BHV and [Ajzen's \(1991\)](#) TPB to measure general start-up intentions ([Gorgievski et al., 2018](#); [Hueso et al., 2020](#); [Liñán et al., 2016](#); [Schmidt and Tatarko, 2016](#); [Yang et al., 2015](#)) as discussed in greater detail in the following subsection.

Other papers adopt very different approaches to model EIs. In fact, a number of papers use an eclectic approach to define this variable. They combine contributions from different frameworks to develop the hypotheses regarding the effect of PVs and other variables on EIs. This is the case of seven papers: [Hirschi and Fischer \(2013\)](#), [Espiritu-Olmos and Sastre-Castillo \(2015\)](#), [Sastre-Castillo et al. \(2015\)](#), [Tipu and Ryan \(2016\)](#), [Kunttu et al. \(2017\)](#), [Fernandes et al. \(2018\)](#) and [Lechner et al. \(2018\)](#). [Geldhof et al. \(2014\)](#) also use an eclectic framework to define EIs but in this case, this variable is employed to predict behaviours.

Finally, there are four papers adopting other less commonly used approaches to define and model EIs. [Bacq and Alt \(2018\)](#) employed a combined model of SEI ([Mair and Noboa, 2006](#)) to analyse the influence of empathy on this variable. [Bolzani and Foo \(2018\)](#) adopted a laddering theory ([Reynolds and Gutman, 1988](#)) to predict the internationalisation intention and uncover five of [Schwartz's](#) basic values at the base of the internationalisation intention. [Sihombing \(2018\)](#) followed the value-attitude-behaviour hierarchy as defined by [Homer and Kahle \(1988\)](#) with a focus on the intention to quit as an entrepreneur. Finally, [Ye et al. \(2020\)](#) used the push-pull-mooring model ([Moon, 1995](#)) to predict the intention to switch to green entrepreneurship.

The integrative conceptual framework

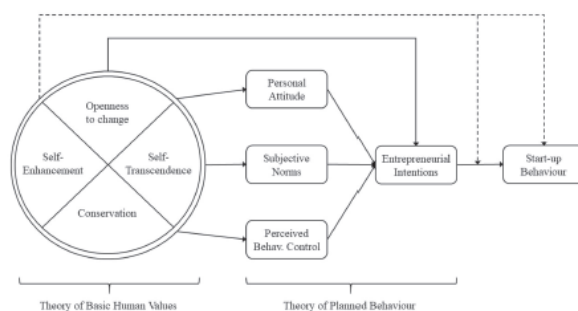
Despite the considerable complexity and variability in the approaches found within these 22 papers, certain overarching patterns emerge that enable an integrative conceptual framework to be developed. The overwhelming majority of papers consider PVs as an antecedent of EIs that are either directly connected or mediated by other variables (e.g. [Gorgievski et al., 2018](#); [Hueso et al., 2020](#)). Nevertheless, there are two contributions in which

EIs and PVs are considered as independent variables jointly affecting actual behaviour (Farrington *et al.*, 2011; Geldhof *et al.*, 2014). This is in line with the possible mediating effect of PVs on the intention–behaviour relationship, as suggested by Fayolle *et al.* (2014).

Given that the TPB (Ajzen, 1991) and BHV (Schwartz, 1992) are the most commonly applied theories, and that their joint use is found in nearly one-third of the papers (seven out of 22, six empirical and one theoretical), it seems appropriate to base the integrative framework thereon. In this respect, the first reflection is that PVs are considered as distant predictors of intention through the mediation of motivational antecedents. Nevertheless, a number of papers test the direct relationship between PVs and EIs. Liñán *et al.* (2016) is one of them using the BHV–TPB framework. Figure 3 presents the integrative conceptual framework. Solid lines indicate relationships that have been analysed in these 22 papers, while dotted lines represent relationships yet to be tested. In particular, as Fayolle *et al.* (2014) suggested, PVs may moderate the intention–action link. Similarly, Delanoë-Gueguen and Liñán (2019) found the security work motivation (very close to the PV of security) to moderate this relationship and also to exert an independent and direct negative effect on start-up behaviour.

The influence of each value dimension on the TPB variables has been independently analysed in these papers and consistent results were found. They are not presented in Figure 3 for reasons of clarity but are instead summarised in Table 2 based on the six empirical papers that test the BHV–TPB approach. Also, five of these papers propose and test a partial or total mediation model (Gorgievski *et al.*, 2018; Hueso *et al.*, 2020; Kruse *et al.*, 2019; Schmidt and Tatarko, 2016; Yang *et al.*, 2015) and this is also the relationship proposed in the theoretical paper (Fayolle *et al.*, 2014). The main results are described below, organised in terms of PV dimensions.

Within the self-enhancement value dimension (achievement and power values), the results for Liñán *et al.* (2016) indicated a direct positive relationship with EIs, even after controlling for the TPB antecedents. Yang *et al.* (2015), in turn, noted mixed results for the indirect effect of these values through the entrepreneurial PA. Gorgievski *et al.* (2018) observed that self-enhancement values positively predict self-efficacy (a proxy for PBC), while they negatively affect SNs. In the case of SEIs, Kruse *et al.* (2019) pointed not only towards a positive indirect relationship between these values and the SEI through both PA and PBC but also towards a negative direct relationship, whose direct and indirect effects cancel each other out. Related to



Note(s): Solid lines represent relationships tested in the papers analysed. Dotted lines represent relationships yet to be tested

Figure 3. The integrative conceptual framework

IJEBR

this, although without applying the joint BHV-TPB framework, Bolzani and Foo (2018) found both self-enhancement values at the basis of the internationalisation decision. Similarly, Espiritu-Olmos and Sastre-Castillo (2015) also remarked that self-enhancement positively relates to EIs; Sastre-Castillo *et al.* (2015) agreed and also found it to be negatively related to a social orientation. Finally, both Hirschi and Fischer (2013) and Lechner *et al.* (2018) observed a positive relationship between self-enhancement-related work values and EIs.

In the case of openness to change values (self-direction and stimulation), the results are much clearer. Schmidt and Tatarko (2016) found a positive relationship between self-direction and all three motivational antecedents of EIs. Gorgievski *et al.* (2018) replicated this finding for PA and PBC. Yang *et al.* (2015) confirmed this result for the PA antecedent, while Liñán *et al.* (2016) corroborated a positive direct relationship between these values and EIs. In the case of SEIs, Kruse *et al.* (2019) also noted that this value dimension relates positively and significantly to PA, PBC and to SEIs directly. Additional support for this relationship may be found in those papers that do not combine TPB and BHV theories. In this way, Sastre-Castillo *et al.* (2015) observed a direct positive relationship with EIs but not with the social orientation. Bolzani and Foo (2018) also remarked self-direction to be at the basis of the internationalisation decision. Again, Hirschi and Fischer (2013) and Lechner *et al.* (2018) reported a positive relationship between variety and autonomy work values (matching the openness to change dimension) and EIs.

The remaining value dimensions (self-transcendence and conservation) are more strongly associated with collectivistic values. In this respect, Yang *et al.* (2015) reported a negative relationship of all the values in these dimensions (except for universalism) with the entrepreneurial PA. Similarly, Schmidt and Tatarko (2016) observed security (a conservation value) to negatively affect the PA. In turn, Hueso *et al.* (2020) reported a more complex relationship, where all these values have a negative relationship with PA and PBC (although not always significant), while they all have a positive relationship with SNs (again, not always significant). Other papers (not combining TPB and BHV theories) found certain conflicting results since conservation values are found to have a direct positive relationship with EIs (Fernandes *et al.*, 2018). Bolzani and Foo (2018) noted security and benevolence values to be at the basis of the intention to internationalise. Finally, Hirschi and Fischer (2013) reported that security and authority work values (matching the conservation dimension) negatively relate to EIs, while Lechner *et al.* (2018) observed security and social/interpersonal work values (close to the conservation and self-transcendence dimensions, respectively) to be associated with a lower EI.

Table 2.
The influence of basic human values dimensions on the theory of planned behaviour variables

Personal value dimensions	Attitude to entrepreneurship	TPB antecedents		Entrepreneurial intention
		Subjective norms	Perceived behavioural control	
Self-enhancement	± (EI) + (SEI)	- (EI)	+ (EI, SEI)	+ (EI) - (SEI)
Openness to change	+ (EI, SEI)	+ (EI)	+ (EI, SEI)	+ (EI, SEI)
Self-transcendence	± (EI) + (SEI)	+ (EI)	- (EI) + (SEI)	+ (SEI)
Conservation	- (EI)	+ (EI)	- (EI)	- (SEI)

Note(s): Based on the results from Gorgievski *et al.* (2018), Hueso *et al.* (2020), Kruse *et al.* (2019), Liñán *et al.* (2016), Schmidt and Tatarko (2016) and Yang *et al.* (2015)
 + = positive relationship; - = negative relationship; ± = conflicting results. EI = general entrepreneurial intention; SEI: social entrepreneurial intention

It should be borne in mind that different results are found when the SEI is considered. In this case, [Kruse et al. \(2019\)](#) found self-transcendence to be positively related both to the antecedents of intention (PA and PBC) and also directly to the SEI itself. Conservation, in contrast, is not related to the antecedents and has a negative influence on the SEI. This is supported by other research studies based on alternative theoretical models. Thus, [Kunttu et al. \(2017\)](#) noted altruism (close to self-transcendence values) to be positively related to SEIs. [Bacq and Alt \(2018\)](#) reported a similar positive result for empathy. In turn, the results from [Sastre-Castillo et al. \(2015\)](#) supported a positive relationship between self-transcendence and conservation values and a social entrepreneurial orientation.

Discussion

This SLR has identified 22 articles that jointly examine the role of PVs and EIs in entrepreneurship. Although this is a recent area of research (all papers are from 2011 or later), it is growing rapidly. The review is timely, in that it offers a comprehensive panoramic view of the accumulated knowledge to date and develops an integrative conceptual framework. A first conclusion to be drawn is that research to date overwhelmingly considers PVs as an antecedent in the formation of EIs, in accordance with the conceptualisation of PVs as basic guiding principles in life ([Rokeach, 1973](#); [Schwartz, 1992](#)). Thus, they should be expected to play a role in making decisions regarding desirable and/or feasible courses of action (one of which being entrepreneurship).

BHV-TPB is the most frequent combination of theories used. There are practically no alternative theoretical formulations that may compete in this respect. In the case of PVs, up to six papers analyse work values but with no common underlying framework. In fact, two of these papers ([Hirschi and Fischer, 2013](#); [Lechner et al., 2018](#)) base their work values on Schwartz's (1992) BHV theory. The results from the BHV-TPB-based research study tend to be consistent, with few exceptions. Only in the case of the relationship between self-transcendence and self-enhancement values and PA does there seem to be clear conflict. [Yang et al. \(2015\)](#) found opposing relationships for each of the basic values in these dimensions. In turn, [Hueso et al. \(2020\)](#) observed a negative relationship between universalism and PA. There may be cultural elements underlying these differences. Previous research has shown that shared cultural values affect the individual's intention-formation process ([Jaén and Liñán, 2013](#); [Liñán et al., 2016](#); [Munir et al., 2019](#)).

Another major source of difference is the specific intention under analysis. [Kunttu et al. \(2017\)](#) explicitly compared SEIs and (general) EIs. They remarked that the work values predicting each of these intentions do indeed differ. Similarly, [Kruse et al. \(2019\)](#) used BHV and TPB to explain the formation of SEI. Their results were most insightful when compared to similar models for general EIs ([Gorgievski et al., 2018](#); [Hueso et al., 2020](#); [Schmidt and Tatarko, 2016](#); [Yang et al., 2015](#)), (see Table 2). For several relationships, the effect of PVs on the TPB variables appears to be consistent (e.g. openness-to-change values affecting any TPB variable), while for others a conflict is found (e.g. the influence of self-transcendence on PBC).

Implications and future research opportunities

Several implications for academic research may be derived from this SLR. As a relatively new area of research, there are substantial knowledge gaps yet to be filled. The papers reviewed here provide a basic framework from which new research lines may be identified. The most relevant research questions emerging from this review are summarised in Table 3. However, this is not to be taken as an exhaustive list since many additional questions may be posed.

With few exceptions ([Fernandes et al., 2018](#); [Yang et al., 2018](#)), research tends to group the basic human values into four value dimensions. This may increase consistency and reliability

IJEER	Knowledge gaps	Research opportunities
	Value dimensions vs basic human values	(1) Role of individual values (2) Specific combinations of basic values
	Single dimensions vs complete value circumplex	(1) Role of individual dimensions (2) Combinations of two adjacent dimensions (3) Combinations of opposing dimensions (4) Cancelling out effects (5) Direct and indirect effects of value dimensions
	Effects on different types of intentions	(1) SEIs vs general EIs (2) Sustainable EIs (3) Small life style venture vs scalable start-up (4) High-technology vs traditional craft venture (5) Intention to internationalise, to grow, to innovate or to quit
	Theoretical frameworks	(1) TPB vs competing intention models (e.g. entrepreneurial event model, social cognitive career theory) (2) BHV vs alternative value theories (e.g. work values)
	Different samples	(1) Representativeness of student samples (2) Young vs older adults (3) Natives vs immigrants
	Context characteristics	(1) Cultural values (2) Life stages (3) Family or personal circumstances
	PVs in entrepreneurship education	(1) Malleability of PVs (2) Design of education interventions to affect PVs (3) Evaluation of entrepreneurship education (4) PVs and learning (5) PVs and entrepreneurial identity

Table 3. Knowledge gaps and future research opportunities

of the results but possibly at the expense of losing detailed relationships. Are certain individual basic values relevant in themselves to explain EIs and subsequently behaviour? Or are there specific combinations of basic values that are more promising in this respect? In particular, hedonism (seeking satisfaction and pleasure) is frequently ignored (since it is not included in the four value dimensions). Neither [Fernandes et al. \(2018\)](#) nor [Yang et al. \(2018\)](#) found any effect of hedonism on intentions. Nevertheless, the combination of hedonism with additional basic values might be relevant.

The same reflections may apply to the four value dimensions. Is a high level of openness to change sufficient to develop the EI? Or is this the case for self-enhancement? Or are high levels of both individualistic-like dimensions necessary? Much research is needed to fully understand the roles of each dimension in explaining the development of EIs and action. Adjacent dimensions may reinforce each other, as could be the case of openness to change and self-enhancement for general EIs ([Liñán et al., 2016](#)) or of openness to change and self-transcendence for social EIs ([Kruse et al., 2019](#)). Additionally, opposing dimensions may cancel each other out and hence, a high level of one dimension may be insufficient if the opposing dimension is also prioritised. The indirect effects of value dimensions on EI, through the TPB antecedents, also deserve attention. [Hueso et al. \(2020\)](#) and [Gorgievski et al. \(2018\)](#) found certain dimensions to affect one antecedent positively and another negatively. Predicting the aggregate effect of these dimensions on EIs would be complex, and even if no such total effect is found, this does not necessarily mean that the value dimensions are irrelevant.

The intention to start up a (general) venture is by far the most common intention analysed, with the TPB ([Ajzen, 1991](#)) as the predominant theoretical framework. Nevertheless, several

papers considered alternative intentions, such as social entrepreneurship (Bacq and Alt, 2018; Kruse *et al.*, 2019; Kunttu *et al.*, 2017; Sastre-Castillo *et al.*, 2015), internationalisation (Bolzani and Foo, 2018), green entrepreneurship (Ye *et al.*, 2020) and quitting (Sihombing, 2018) intentions. In this respect, Table 2, which compares SEI vs EI, is based on only a few studies. There are still several relationships for which no comparison is yet available. Much more work is needed to confirm or refute these results. Additionally, the role of PVs may differ depending on which specific intention (to perform a certain behaviour) is under consideration. Therefore, the potential entrepreneur's PV structure may have substantial implications for the type of venture being created and its future evolution.

The use of alternative theoretical frameworks should also be explored. A number of competing intention models exist, such as the entrepreneurial event model. However, Schlaegel and Koenig (2014) found a substantial overlap between this model and the TPB. Another interesting avenue for further research could involve other such theories. Nevertheless, this research should be able to demonstrate an improvement over the TPB in order to be of any value. In the case of PVs, BHV is the most commonly used framework for their conceptualisation, either directly or indirectly (Hirschi and Fischer, 2013; Lechner *et al.*, 2018). Work values, in turn, have been defined differently in several of these papers (e.g. Farrington *et al.*, 2011; Geldhof *et al.*, 2014; Tipu and Ryan, 2016). There seems to be much less consensus concerning the most suitable approach for the identification of work values that affect entrepreneurship.

The vast majority of the papers analysed use student samples. There is considerable debate regarding the representativeness of these samples. The comparison of these results with those from comparable studies with alternative samples of adults is therefore of major interest. Additionally, the priorities of an individual's PVs are likely to evolve as they advance through their different life stages (Schwartz, 1992). Thus, the role of PVs in the formation of EIs may differ in younger vs older people. Similarly, immigrants tend to exhibit higher start-up rates than is the case for natives. This may be a consequence of differing cultural values which, to a great extent, are reflected in prioritised PVs.

The role of cultural values is also relevant. Liñán *et al.* (2016) argued that the influence of PVs on intention is stronger for individuals who prioritise different values from those in the society where they live. This could explain why immigrants are more prone to starting up new businesses and why in multicultural societies, certain ethnic groups are more entrepreneurial than others. Do individuals with different priorities respond differently to the same situation? And do individuals with the same priorities respond differently due to their different situations (such as dependence on family circumstances)?

PVs remain relatively stable over time (Bardi *et al.*, 2009). Therefore, the relevance of understanding their influence may be questioned. However, research has found that these values may be modified, for example, via education (Myrsky *et al.*, 2013). This may happen through purposeful actions taken by teachers, but may also take place unintentionally through peer interaction and similar socialisation practices (Racko *et al.*, 2017). There is, therefore, an obvious opportunity to develop and implement entrepreneurship education initiatives that include specific value-transmitting and value-changing components. Training activities, therefore, may be devised to contribute towards modifying the value structure of the participants. Future research could help not only in the search for the most promising combination of values to promote entry into entrepreneurship but also to foster responsible and sustainable behaviour as an entrepreneur. The evaluation of education initiatives in this respect should be a long-term exercise. Longitudinal studies are called for to achieve this aim. Hitherto, they have been the exception: only one of the 22 papers analysed here carries out a longitudinal study (Lechner *et al.*, 2018).

The PV structure may stimulate learning and skill development in value-congruent domains (Caprara and Steca, 2007). This could help explain why certain individuals exhibit

IJEER

higher entrepreneurial self-efficacy, once experience and other background variables are controlled for. Similarly, PVs could also influence the recognition of business opportunities (Shepherd *et al.*, 2013) or the entrepreneurs' choices for the firm's strategic priorities (Gorgievski *et al.*, 2011). Entrepreneurial identity is also likely to be related to PVs. In this regard, the concept of "authenticity" has been linked to individuals behaving in accordance with their values (Gecas and Burke, 1995). Thus, PVs could reflect an activation of one's own personal identity (Hitlin, 2003). Therefore, specific combinations of PVs could promote the formation of an entrepreneurial identity. There is an obvious gap to be filled by testing the model by using similar sample characteristics, the operationalisation of measures and by controlling either for other variables in the model or for contextual factors.

Conclusions

This is the first systematic review of the literature which, to the best of our knowledge, jointly analyses PVs and EIs. Judging by the publication dates, this is a rapidly growing area of research. The present study will be useful for other researchers entering into this area of analysis since it provides not only a comprehensive mapping of the theories and methods used to date but also the results that they report. Furthermore, this review provides an integrative conceptual framework to synthesise knowledge to date and identifies a number of knowledge gaps and opportunities that remain open for future research.

Despite being a very recent field of research, it is already opening up into several different streams. The core of the field is the consideration of PVs (typically conceptualised under BHV theory) as antecedents in the formation of EIs (most often considered from the perspective of the TPB). Alternative lines of analysis, however, have already been found. In particular, alternative entrepreneurship-related intentions are being considered, with SEIs as the most frequent. Evidence has already been provided that PVs differ in their effect on the formation of either social or general EIs.

Finally, this study, as for any literature review, is not without its limitations. First, certain relevant contributions may not have been analysed. This may have happened either because they were not initially detected (our keywords may not have been sufficiently comprehensive) or because they have been inadequately excluded. Nevertheless, the authors have been as systematic and rigorous as possible to prevent this from happening. Second, there is always an element of subjectivity in the classification of papers, despite every precaution taken. For this reason, all doubts were discussed amongst all the authors before any decision was made. Despite any limitations, researchers in the field will find this contribution to be relevant and helpful.

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Table A1.
Papers included in the
systematic literature
review

Author	Type	Sample	Variables	Theory	Result
<i>Farrington et al. (2011)</i>	Quant	739 students and business owners (South Africa)	14 work values compiled from the literature	Work value and career choice (Cernamo and Germer, 2006). TPB (Ajzen, 1991)	The article compares the work values the respondents associate with entrepreneurship for both commerce students and actual business owners. The results indicate that students are more idealistic regarding time (life-work balance), financial benefits, challenges, prestige possibilities for personal growth and development. Intention is referred to but relation to work values is not tested.
<i>Hirschi and Fischer (2013)</i>	Quant	218 university students (Germany)	Work values and entrepreneurial intention (EI)	Based on basic human values (Schwartz, 1992)	Self-enhancement (pay and prestige) and openness-to-change values (variety and autonomy) are positively related to the level of EI. Conservation (security and authority) is negatively related to the level of EI. The interaction with gender is related to the change in EI (self-enhancement related to increase in EI for women, while conservation related to increase in EI for men).
<i>Watcharavongkarn et al. (2013)</i>	Quant	345 undergraduate students (the USA)	Self-actualisation and social affiliation values, attitudes to entrepreneurship and EI	The value-attitude-behaviour hierarchy (Homer and Kahle, 1988) and the TPB (Ajzen, 1991)	Self-actualisation values (self-fulfilment, a sense of accomplishment, self-respect, being well respected) positively related to the attitude towards entrepreneurship, which in turn is related to the entrepreneurial career intentions. The influence of self-actualisation values on attitudes is moderated by the level of entrepreneurial knowledge (the relationship is stronger for students with more knowledge). Personal values proposed as helping to explain the formation of EI antecedents and also moderate their effect on the EI. Personal values could play an important role in the intention-action link.
<i>Fayolle et al. (2014)</i>	Theor.	-	Personal values, motivations and EI	Basic human values (Schwartz, 1992) and the TPB (Ajzen, 1991)	(continued)

Author	Type	Sample	Variables	Theory	Result
Geldhof <i>et al.</i> (2014)	Quant/ qualit.	3,461 respondents, 48 interviews. University students (USA)	Job values scale and EI	Relational developmental systems theories (RDS); Overton, 2010; Overton, 2013)	Direct relationship between work-related values and intention is not tested. Both used as predictors of entrepreneurship-related behaviours. Work-related values (entrepreneurial career values [ECVs]) can predict some specific entrepreneurial behaviours (particularly innovation-related ones) There are no significant differences in the importance attached to the ECV between individuals with high, moderate or low levels of EI Self-enhancement is the only higher-order personal value to exert a significant (positive) effect on the EI Personal values do not seem to be better direct predictors of EI than is the case for personality traits The personal value dimensions of openness to change, self- enhancement and self-transcendence are positively related to entrepreneurial attitudes. In turn, conservation is negatively related to these attitudes Additionally, the study also measures the social (as opposed to classical/commercial) entrepreneurial orientation (SEO). In this case, self-enhancement is the most significant variable (negatively) affecting the SEO. In turn, self- transcendence and conservation (conformity and tradition, excluding security) both have a significantly positive effect on the SEO
Espiritu-Olmos and Sastre-Castillo (2015)	Quant.	1,210 business students (Spain)	Personal values, personality traits and EI	Based on basic human values (Schwartz, 1992)	
Sastre-Castillo <i>et al.</i> (2015)	Quant.	384 workers and students (Spain)	Personal values and social entrepreneurial orientation	Adapted from basic human values (Schwartz, 1992)	
Yang <i>et al.</i> (2015)	Quant.	276 MBA students (Taiwan)	Personal values and entrepreneurial attitude	Basic human values (Schwartz, 1992). The TPB (Ajzen, 1991)	The personal values of self-direction, stimulation, achievement and universalism are positively correlated with entrepreneurial attitude (EA). The values of benevolence, tradition, conformity, security and power negatively correlated with EA

(continued)

Personal
values to
entrepreneurial
intention

Table A1.

Table A1.

Author	Type	Sample	Variables	Theory	Result
Liñán <i>et al.</i> (2016)	Quant	2069 adults with an university degree (Spain)	Personal values and EI	Basic human values (Schwartz, 1992) and the TPB (Ajzen, 1991)	The interaction between cultural and personal values is relevant in the formation of EI. Personal values not only directly affect EIs but also have an outlier effect (those who are more individualist than average in their culture will exhibit a higher EI)
Schmidt and Tatarko (2016)	Quant	2061 respondents (Russia)	Personal values and implementation intention	Basic human values (Schwartz, 1992) and the TPB (Ajzen, 1991)	Personal values are distal predictors of EI. Effects on EI and implementation intention fully mediated by TPB antecedents
Tin and Ryan (2016)	Quant	309 students in service classes (the United Arab Emirates)	Work ethics: self-reliance, morality-ethics, leisure, hard work, centrality of work, wasted time, delay of gratification and EI	Multidimensional work ethic profile (Miller <i>et al.</i> , 2002)	Tests the role of self-direction (positively on ATT, SN and PR) and security (negatively on ATT) and they are both related to the TPB antecedents
Kunttu <i>et al.</i> (2017)	Quant	338 university students (Liechtenstein, Austria and Finland)	Work values, social entrepreneurial goals, self-efficacy, EI and socially oriented entrepreneurial intention	Eclectic model of work values (Lyons <i>et al.</i> , 2010; Ryan and Deci, 2000; Twenge <i>et al.</i> , 2010)	Self-reliance, leisure and wasted time all positively predict entrepreneurial intention Hard Work is an important component in the prediction of EI; however, the direction of the relationship is negative centrality of work is unrelated to EI Unfortunately, morality/ethics and delay of gratification could not be tested due to poor scale reliabilities EI and social entrepreneurial goal (SEG) as the dependent variables. Additionally, the socially oriented entrepreneurial intention (SOEI) is computed as the product EI*SEG The Altruism work value has no effect on EI but a positive and significant one on SEG and SOEI. In turn, security has a significant (negative) coefficient for SEG Intrinsic reward positively predicts EI but negatively so for SEG. No significant effect in the case of SOEI

(continued)

Author	Type	Sample	Variables	Theory	Result
Bacq and Alt (2018)	Quant.	281 university students (the USA and South Africa)	Empathy (perspective taking, empathic concern), social worth, social entrepreneurial self-efficacy and social intentions (SEIs)	Combined model of SEI (Mair and Noboa, 2006). Prosocial motives approach (Shepherd, 2015). Individual agency and communion motives (Grant and Gino, 2010)	Support for a fully mediated relationship between empathy and SEI. In order to channel their empathy into SE intentions, individuals must experience SE self-efficacy and social worth. Empathy composed of empathic concern (affecting SEI through SE self-efficacy, an agentic element) and perspective-taking (affecting SEI through social worth, a communion motive)
Bolzani and Foo (2018)	Qualit.	140 new technology-based firms (Italy)	Personal goals and internationalisation intention	Basic human values (Schwartz, 1992). Laddering theory (Reynolds and Gutman, 1988)	Identification of goals motivating internationalisation. More abstract values (five of Schwartz's values: power, achievement, self-direction, security and benevolence) motivate intermediate goals, which, in turn, stimulate more specific aims/results expected from internationalisation. Self-enhancement values (power, achievement) most frequently mentioned, followed by self-direction and security
Fernandes <i>et al.</i> (2018)	Quant.	293 university students (Portugal and Spain)	Entrepreneurial orientation questionnaire (including personal values and EI)	<i>Ad hoc</i> integrative psychological model, including basic human values (Schwartz, 1992)	No differences by group, except for security (preferred by non-portfolio entrepreneurs, those with an entrepreneurial family background, those with past international experience and push-entrepreneurs). Aims at explaining the entrepreneurial intention based on psychological traits, motivations and personal values in a university student sample. Only collectivist values (tradition in the Portuguese sample, conformity in the Spanish sample) have a significant positive influence on intention

(continued)

Personal values to entrepreneurial intention

Table A1.

Table A1.

Author	Type	Sample	Variables	Theory	Result
<i>Coyteveski et al. (2018)</i>	Quant	823 students (Germany, The Netherlands, Poland and Spain)	Personal values and entrepreneurial intention	Basic human values (Schwartz, 1992) and the TPB (Ajzen, 1991)	Openness and self-enhancement values relate positively to entrepreneurial career intentions. The relationship is mediated by attitudes towards entrepreneurship and self-efficacy Additionally, self-enhancement is negatively related to subjective norms, causing a small indirect negative effect on EIs
<i>Lechner et al. (2018)</i>	Quant	862 young adults (Finland)	Work values, entrepreneurial intentions (EIs) and leadership aspirations	Vocational development theory (Holland, 1997; Super, 1988). Work values as a reflection of personal values (Fischer, 2013; Schwartz, 1992)	Longitudinal study measuring work values at T1 (2008/09) and EI and leadership aspirations at T2(2013/14). The work values of extrinsic rewards and autonomy are positively related to EI. Higher importance placed on security and on social/interpersonal aspects is associated with lower EI. Personality traits included as control but none were significant after including work values Work values account for nearly all of the gender gap in EI
<i>Shoombing (2018)</i>	Quant	462 micro-entrepreneurs (Indonesia)	Terminal and instrumental values, entrepreneurial attitude and intention to quit	Values (Rokeach, 1973) and The value-attitude-behaviour hierarchy (Homer and Kahle, 1988)	Terminal values (i.e. success, being an honest person, happiness of life, responsible and having a good future) are significantly and positively related to the entrepreneurial attitude Instrumental values (i.e. honesty, hard work, success and work with diligence) do not affect the entrepreneurial attitude Attitude towards entrepreneurship is not related to intention to quit as an entrepreneur

(continued)

Author	Type	Sample	Variables	Theory	Result
Kruse <i>et al.</i> (2019)	Quant.	1,226 students (Germany)	Personal values and social entrepreneurial intention (SEI)	The work motivation framework (Diefendorff and Chandler, 2011). Basic human values (Schwartz, 1992; The TPB (Ajzen, 1991) The TPB (Ajzen, 1991) as a reference	Positive direct effects for self-transcendence and openness-to-change values on SEI. Negative effects for self-enhancement and conservation values. Positive indirect effects of self-transcendence and self-enhancement dimensions on SEI (through TPB antecedents)
Muhammad <i>et al.</i> (2019)	Qualit.	20 Muslim married women entrepreneurs (Pakistan)	Qualitative interview on the motives and reasons to start up		Retrospective account on the reasons/motives to start-up of women entrepreneurs with either forced, arranged or love marriages. In forced marriages, the need for independence is a common psychological factor influencing the decision to start up a business. In arranged marriages, a need for stimulation is commonly cited. In the case of love marriages, the need to contribute to the familial wealth and success is mentioned
Hueso <i>et al.</i> (2020)	Quant.	413 students (the United Kingdom and Spain)	Personal values and entrepreneurial intention	Basic human values (Schwartz, 1992; TPB (Ajzen, 1991)	Collectivistic personal values (universalism, benevolence, tradition, conformity and security) have an indirect effect on EIs; negative through personal attitude and perceived behavioural control but also positive through subjective norms
Ye <i>et al.</i> (2020)	Quant.	1,562 adults (China)	Altruistic value and green entrepreneurial intention	The push-pull-mooring model (Moon, 1996)	Warm glow (altruistic personal value) is included as a push factor influencing the green entrepreneurship switching intention. The altruistic value exhibits a positive significant effect on the green entrepreneurship switching intentions of individuals

Notes(s): Type: quant. = quantitative; qualit. = qualitative; theor. = theoretical

Personal values to entrepreneurial intention

Table A1.

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