



**VNIVERSIDAD
D SALAMANCA**

CAMPUS OF INTERNATIONAL EXCELLENCE

PROGRAMA DE DOCTORADO EN PSICOLOGÍA

DEPARTAMENTO DE PSICOLOGÍA SOCIAL Y ANTROPOLOGÍA

**ANTECEDENTES ALTERNATIVOS A LOS MODELOS
CLASICOS DE LA INTENCIÓN EMPRENDEDORA**

TESIS POR COMPENDIO DE PUBLICACIONES

Presentada por

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A mio nonno,
Per avermi insegnato l'arte dei *"vasati a pizzicunedda"*.

Ai miei genitori, Enzo & Giovanna,
A Nino
A Gianpiero
"Nihil est in intellectu quod non sit prius in sensu".

Autorización de los directores

El **Dr. José Carlos Sánchez García**, y la **Dra. Brizeida R. Hernández Sánchez**, de la Universidad de Salamanca,

CERTIFICAN:

Que **Dña. Giuseppina Maria Cardella** ha realizado, bajo su dirección, la Tesis Doctoral titulada: “**Antecedentes alternativos a los modelos clásicos de la intención emprendedora**” y que esta cumple con los requisitos de calidad, originalidad y presentación requeridos en una investigación científica para optar al grado de Doctor por la Universidad de Salamanca.

Para que así conste, y tenga los efectos oportunos, los directores firman la presente autorización en Salamanca, a 4 de Noviembre de 2021.

Ringraziamenti

“Con l’aiuto di C. mi trovai dall’altra parte. Ora quei nomi delle città di Spagna mi si intridevano di passione. Avevo la Spagna nel cuore. Quei nomi – Bilbao, Malaga, Valencia; e poi Madrid, Madrid assediata – erano amore, ancor oggi li pronuncio come fiorissero in un ricordo di amore”. (Sciascia, 1956/2004, p.43).

Nelle pagine del primo libro, *Le parrocchie di Regalpetra*, è possibile ritrovare la passione delle scelte ideologiche di Sciascia, di quegli anni, in cui la Spagna servì da specchio per riflettersi e capirsi. Italiani e spagnoli siamo cugini, sosteneva l’auore, riferendosi alla comunione di valori e stili di vita che ci appartengono. E Sciascia non si sbagliava.

Molte, infatti, sono le persone e le Istituzioni che hanno permesso la realizzazione di questa tesi dottorale. Iniziando da quest’ultimi un doveroso ringraziamento va alla Junta di Castilla y León che, grazie alla beca pre-doctoral, mi ha permesso di vivere questa esperienza appieno.

All’Università di Salamanca per aver contribuito alla mia crescita personale e professionale. Per avermi donato il regalo più grande, quello del “sapere”, inteso come consapevolezza del proprio essere nel mondo.

Se non fosse stato per la differenza linguistica, davvero non avrei avuto la percezione di trovarmi in un’altra Nazione. Così mi piace rispondere a chi mi chiede: “Mariú, come ti trovi in Spagna?”

La Spagna é casa.

E quando parlo di casa, non mi riferisco ad un posto físico, ma alla qualità delle relazioni che, nonostante la distanza, mi hanno fatto respirare un’aria pura. La mia.

E allora grazie al mio tutor, José Carlos, alla sua presenza costante nella mia quotidianità spagnola (e anche, italiana). Ai suoi insegnamenti, ai suoi “Mariú tienes que morderte la lengua”, quando qualcosa non incontrava il mio benessere. Grazie per avermi fatto vivere Cañizal e per avermi permesso di conoscere un pochino più a fondo la Spagna. Ogni insegnamento é stato un faro, che ha tracciato il mio cammino.

Grazie alla Professoressa Brizeida, un vulcano di positività. La prima persona che mi ha invitato per un pranzo fuori, dopo il lockdown, regalandomi un briciolo di normalità: “Mariú, si può uscire, andiamo a pranzare al Corte Inglés?”. Da lei ho appreso che, in ogni posto che visiti, devi comprare una calamita. Con lei ho fatto l’esperienza del Cammino di Santiago, una piccola esperienza, ma abbastanza grande per farmi comprendere che, per quanto lungo e faticoso sia il percorso, avere una compagna di viaggio rende il tutto più piacevole.

Grazie al Prof. Licciardello, per aver creduto in me, ma anche per la pazienza e i pomeriggi passati a spiegarmi il programma SPSS. Ai suoi insegnamenti di vita che, ancora oggi, sanno di poesia, ai nostri caffè che quasi sempre finivano per essere delle colazioni rinforzate. Grazie per l’emozione del primo libro scritto insieme e grazie per avermi fatto conoscere la vita accademica.

Grazie a Manuela, la mia compagna di (dis)avventure, così mi piace definirla. Ai nostri viaggi (per lavoro, si intende), alle nostre chiacchierate notturne a Napoli, o a Londra o ad Amsterdam. Grazie per quel biscotto della fortuna a China Town e grazie per avermi fatto vedere, con occhi diversi, il mondo della “vecchiaia”.

Grazie a Gioconda e a suo marito Giovanni, ai loro pranzi improvvisati, al riso in bianco come contorno. A quella volta in cui hanno comprato un caffè espresso italiano per regalarmi un briciolo di felicità.

Grazie ad Ilaria, alle nostre infinite e lunghe note vocali, al “capu” sempre pronto ad indicarci la strada giusta.

Grazie a Marinela per avermi aperto, anzi spalancato, le porte di casa sua e avermi regalato tanta marmellata al “membrillo” che ha allievato le mie mattine, anche questa.

Grazie a Carmen che mi ha fatto capire cos’è l’amicizia vera e cosa significa voler bene ad una persona... nonostante tutto!

Grazie alla Comunità Insieme, la mia “prima volta” lavorativa. Grazie per avermi fatto capire che, nella vita è importante “sporcarsi le mani”. E grazie a Jessica, ai nostri pomeriggi di lavoro, alle nostre risate, ma anche ai nostri perché sul mondo. Ridere sui problemi è una buona via d’uscita.

Grazie ad Alfonso, Nino, Rosanna, Totus e Valentina per i “buongiorno”, che, ogni mattina, hanno allievato i cieli grigi di Salamanca e anche il mio cuore, donandomi una parvenza di felicità ... di vicinanza affettiva. Alle albe siciliane che mi dicevano “non sei sola, siamo lí con te”.

Grazie a Sofia e Giada per avermi fatto capire che la distanza è solo mentale: “Mariú dove sei?”, “In Spagna”, “Va beh, domani ci porti al parco giochi”.

Grazie ad Elisa, alle sue videochiamate domenicali che hanno riempito i miei vuoti, ai suoi sorrisi, ai suoi “ti voglio bene, quando torni ti preparo i biscotti!

Grazie alla mia vicina di casa, ai suoi sorrisi, ai suoi “Ehy italiana, come stai?”.

Grazie a chi ha creduto in me.

A chi continuerá a farlo.

Resumen

La imagen del emprendedor ha ido evolucionando a lo largo de los años, poniendo especial énfasis en el aspecto innovador, como motor de cambio y creador de valor. Muchos autores (por ejemplo, Audretsch & Lehmann, 2005; Acs et al., 2008) han considerado al emprendedor como un agente clave para transformar nuevos conocimientos en productos y servicios, y para acceder a nuevos mercados. Este enfoque, sin embargo, tiene sus raíces en la visión original desarrollada por Schumpeter (1950), quien consideraba al emprendedor como una figura esencial para el desarrollo económico. Asimismo, el último Informe del Global Entrepreneurship Monitor (GEM, 2020) destacó la importancia de la creación de nuevas empresas, y el autoempleo en general, como determinantes del crecimiento económico (Bosma et al., 2021).

En la literatura, la intención ha sido considerada el antecedente principal de la conducta (por ejemplo, Ajzen, 1991), por lo que parece innegable el peso que tienen las intenciones en la elección de una carrera emprendedora.

Las líneas de actuación pública también priorizan la promoción del emprendimiento y las actitudes asociadas al mismo, apoyándose, sobre todo, en la inclusión de acciones y medidas encaminadas a la consecución de objetivos y competencias clave, en los diferentes niveles educativos. Tanto los gobiernos como las instituciones, por tanto, deben conocer las características de los "potenciales emprendedores" y su entorno, para poder tomar decisiones que se traduzcan en una planificación coherente y eficaz.

Especialmente hoy en día, con la crisis derivada de la pandemia Covid-19, esto se traduce en un desafío que deben aceptar los estudiosos de todo el mundo, para formar a las nuevas generaciones en una gestión más flexible y autónoma de los roles profesionales y personales, por lo que los procesos de cambio se perciben como una oportunidad de crecimiento, más que como un límite. Esta concepción encuentra un lugar dentro de la psicología positiva que, al colocar al individuo en el centro, lo empuja a desarrollar aquellas cualidades necesarias para hacerlo "employed". Un camino útil para adquirir *“a range of essential skills and attributes, to make a unique, innovative and creative contribution in the world of work”* (Kozlinska, 2011, p. 207).

Por tanto, el problema debe ser abordado a nivel sistémico donde entran en juego varios factores que favorecen o, viceversa, entorpecen la intención emprendedora de los individuos.

Esta tesis doctoral, a través de 5 publicaciones científicas, tiene como objetivo general comprender la relación entre diferentes variables, psicológicas, contextuales y demográficas, y la intención emprendedora, analizando también los aspectos que podrían dificultar la elección de un tipo de trabajo autónomo/emprendedor y tratando de proponer soluciones alternativas.

En concreto, los tres primeros estudios se refieren a revisiones sistemáticas de la literatura, útiles para comprender la relación entre el apoyo familiar y la intención emprendedora (publicación I), la brecha hombre-mujer en los niveles de intención emprendedora (publicación II) y el estudio de la intención emprendedora social como paradigma que podría mitigar la diferencia de género (publicación III).

La cuarta publicación incluye la validación de la Escala de las Necesidades Psicológicas Básicas (*Basic Psychological Needs Satisfaction and Frustration Scale – BPNSFS*; Chen et al. (2015) en el contexto español. Este estudio representa un paso fundamental para las hipótesis plantadas en la publicación V.

De hecho, el quinto estudio analizó la influencia que las variables psicológicas (satisfacción de necesidades psicológicas básicas, proactividad y optimismo) y un contexto percibido como inseguro (con referencia específica percepción de la pandemia Covid-19) tienen sobre las intenciones emprendedoras de los estudiantes universitarios de América Latina, así como los efectos mediadores de la proactividad y el optimismo.

Los resultados confirmaron las hipótesis de esta Tesis Doctoral. Específicamente, los análisis de revisión de la literatura demostraron la influencia positiva de la familia, tanto en términos de modelos de rol, como de apoyo simple, como un factor crucial en la implementación de las intenciones emprendedoras de los hijos. La segunda publicación indagó la literatura sobre la diferencia entre hombres y mujeres en los niveles de intención emprendedora, destacando las barreras y obstáculos que las mujeres deben superar en el mundo empresarial (especialmente socioculturales y psicológicos), que remiten, por un lado, a una visión estereotipada de la mujer anclada a determinados roles sociales (en

cuanto al cuidado de la familia y dificultad para acceder a la financiación pública), por otro lado, a una falta de confianza en las propias capacidades.

Del análisis de la literatura surgieron también posibles factores externos que podrían obviar estos obstáculos: la educación emprendedora (útil tanto para incrementar los niveles de intención emprendedora, como los niveles de autoeficacia emprendedora, el apoyo familiar y el emprendimiento social).

A la luz de estos resultados, la relación entre género e intención emprendedora social fue analizada en la tercera publicación. Lo que surge de la literatura es que la dimensión social del emprendimiento se relaciona bien con los valores, motivaciones y objetivos que empujan a las mujeres hacia una carrera emprendedora y que, a diferencia de los hombres, parecen más inclinadas a satisfacer las necesidades sociales y comunitarias, y no solo económicas. Finalmente, también se discuten las variables que, en la literatura, más han sido analizadas, como antecedentes de la intención emprendedora social.

Con referencia específica a la cuarta publicación, los resultados de la validación de la escala BPNSF en el contexto español estuvieron en línea con los resultados obtenidos de la validación de la escala en diferentes culturas y idiomas (Chen et al., 2015; Cordeiro et al., 2016; Longo et al., 2016; Del Valle et al., 2018; Liga et al., 2018).

Estos resultados nos han permitido llegar a la quinta publicación que destaca, por un lado, la relación positiva entre la satisfacción de las necesidades psicológicas y las intenciones emprendedoras de los estudiantes universitarios, mientras que, por otro, la relación negativa entre la percepción de Covid-19 y la intención emprendedora.

La proactividad y el optimismo, además de influir directa y positivamente en la intención emprendedora, mediaron la relación entre las dos variables independientes y la variable dependiente, aumentando la importancia de la satisfacción de las necesidades psicológicas básicas, como factor motivador en el proceso emprendedor y disminuyendo el impacto negativo de Covid-19.

Las implicaciones que se derivan de esta Tesis Doctoral incluyen dos aspectos fundamentales: por un lado, conocer las relaciones y la influencia de estas variables podría ser útil para apoyar políticas públicas para la implementación de programas que contribuyan al fortalecimiento de las actividades emprendedoras, por otro lado, resaltar posibles factores que pueden ayudar a superar los obstáculos encontrados en la elección de

un trabajo autónomo/empresario, podría ayudar, especialmente a las nuevas generaciones, a superar la incertidumbre e inseguridad que caracteriza el contexto actual, convirtiéndolos en actores competentes y no simplemente observadores de su propia vida.

Palabras clave: Intención Emprendedora, Familia, Mujer, Emprendimiento Social, Covid-19, Necesidades Psicológicas Básicas, Variables Psicológicas.

Abstract

The figure of the entrepreneur has evolved over the years, placing special emphasis on the innovative aspect, as a driver of change and creator of value. Many authors (for example, Audretsch & Lehmann, 2005; Acs et al., 2008) have considered the entrepreneur as a key agent to transform new knowledge into products and services, or to access new markets. This approach, however, has its roots in the original vision developed by Schumpeter (1950), who considered the entrepreneur as an essential figure for economic development. Similarly, the latest Report of Global Entrepreneurship Monitor (GEM, 2020), highlighted the importance of new business creation, and self-employment in general, as determinants of economic growth (Bosma et al., 2021).

In the literature, intention has been considered the main antecedent of behavior (for example, Ajzee, 1991), so the weight that intentions in choosing an entrepreneurial career appears undeniable.

The lines of public action also privilege the promotion of entrepreneurship and the attitudes associated with it, relying, above all, on the inclusion of actions and measures aimed at achieving key objectives and competences, at different levels of education. Both governments and institutions, therefore, need to know the characteristics of "potential entrepreneurs" and their environment, in order to be able to make decisions that translate into coherent and effective planning.

Especially today, with the crisis derived from the Covid-19 pandemic, this translates into a challenge, which scholars from all over the world must accept, to train new generations in a more flexible and autonomous management of professional and personal roles, for the which the processes of change are perceived as an opportunity for growth, rather than as a limit. This conception finds a place within positive psychology which, by placing the individual at the center, pushes him to develop those qualities necessary to make him "employed." A path aimed at acquiring "a range of essential skills and attributes, to make a unique, innovative and creative contribution in the world of work" (Kozlinska, 2011, p. 207).

Therefore, the problem must be addressed at a systemic level where several factors come into play, promoting or, vice versa, hindering the individual's entrepreneurial intention.

This Doctoral Thesis, through 5 scientific publications, has the general objective contributing to the understanding of the link between different variables, psychological, contextual and demographic, and entrepreneurial intention, also analyzing the aspects that could hinder it difficult to choose a type of autonomous/entrepreneurial work and trying to propose alternative solutions.

Specifically, the first three studies concern literature systematic reviews, useful for understanding the relationship between family support and entrepreneurial intention (publication I), the male-female gap in the levels of entrepreneurial intention (publication II) and the study of the social entrepreneurial intention as a paradigm that could mitigate the gender difference (publication III).

With specific reference to the fourth publication, the results of the validation of the BPNSF scale in the Spanish context were in line with the results obtained from the validation scale of the different cultures and languages (Chen et al., 2015; Cordeiro et al., 2016; Longo et al., al., 2016; Del Valle et al., 2018; Liga et al., 2018).

In fact, the fifth study analyzed the influence of psychological variables (basic psychological needs satisfaction, proactivity and optimism) and the impact of a context perceived as adverse (with specific reference to the Covid-19 pandemic) on intentions entrepreneurship of Latin American university students, as well as the mediating effects of proactivity and optimism.

The results confirmed the hypotheses of this Doctoral Thesis. Specifically, literature review analyzes demonstrated the positive influence of the family, both in terms of role models and simple support, as a crucial factor in the implementation of children's entrepreneurial intentions. The second publication investigated the difference between men and women in the levels of entrepreneurial intention, highlighting the barriers and obstacles that women must overcome in the business world (especially sociocultural and psychological), which refer, on the one hand, to a stereotypical vision of women anchored to certain social roles (in terms of caring for the family and difficulty in accessing public funding), on the other hand, a lack of confidence in one's own abilities.

From the analysis of the literature, possible external factors that could obviate these obstacles also emerge: entrepreneurial education (useful both to increase levels of

entrepreneurial intention, as well as for entrepreneurial self-efficacy, family support and social entrepreneurship).

In light of these results, the relationship between gender and social entrepreneurial intention was analyzed in the third publication. What emerges from the literature is that the social dimension of entrepreneurship is well related to the values and objectives of women who, unlike men, seem more inclined to satisfy social and community needs, and not just economic ones. Finally, the variables that in the literature have been considered antecedents of social entrepreneurial intention are also discussed.

Regarding the fourth publication, the results of the validation of the BPNSF Scale in the Spanish context were in line with the results obtained from the validation of the scale in other cultures and different languages (Chen et al., 2015; Cordeiro et al., 2016; Longo et al., 2016; Del Valle et al., 2018; Liga et al., 2018).

These results have allowed us to reach the fifth publication which highlights, on the one hand, the positive relationship between the psychological needs satisfaction and the entrepreneurial intentions of university students, and on the other, the negative relationship between the Covid-19 perception and entrepreneurial intention. Furthermore, proactivity and optimism, in addition to directly and positively influencing the entrepreneurial intention, mediated the relationship between the two independent variables and the dependent variable, increasing the importance of basic psychological needs satisfaction, as a motivating factor in the entrepreneurial process and decreasing the negative impact of Covid-19.

The implications deriving from this Doctoral Thesis include two fundamental aspects: on the one hand, knowing the relationships and the influence of these variables could be useful to support public policies for the implementation of programs that contribute to the strengthening of entrepreneurial activities; on the other hand, highlighting possible factors that can help overcome the obstacles encountered in the choice of self-employment/entrepreneurial work, could help, especially the new generations, to overcome the uncertainty and insecurity that characterizes the current context, converting them into competent actors and not simply observers of their own life.

Keywords: Entrepreneurial Intention, Family, Woman, Social Entrepreneurship, Covid-19, Basic Psychological Needs, Psychological Variables.

Riassunto

L'immagine dell'imprenditore si è evoluta nel corso degli anni, ponendo particolare enfasi sull'aspetto innovativo, come motore di cambiamento e creatore di valore. Molti autori (ad esempio, Audretsch & Lehmann, 2005; Acs et al., 2008) hanno considerato l'imprenditore come un agente chiave nella trasformazione di nuove conoscenze in prodotti e servizi, e nell'accesso a nuovi mercati. Questo approccio, peraltro, affonda le sue radici nella visione originaria sviluppata da Schumpeter (1950), che ha considerato l'imprenditore come una figura essenziale per lo sviluppo economico. Allo stesso modo, l'ultimo Report del Global Entrepreneurship Monitor (GEM, 2020) ha sottolineato l'importanza della creazione di nuove imprese, e del lavoro autonomo in generale, come determinanti per la crescita economica (Bosma et al., 2021).

In letteratura l'intenzione é stata considerata l'antecedente principale del comportamento (ad esempio, Ajzen, 1991), appare dunque innegabile il peso che le intenzioni hanno nella scelta di una carriera imprenditoriale.

Anche le linee di azione pubblica rendono prioritaria la promozione dell'imprenditorialità e delle attitudini ad essa associate, facendo leva, soprattutto, sull'inclusione di azioni e misure volte al raggiungimento di obiettivi e competenze chiave, a diversi livelli di istruzione. Sia i governi che le istituzioni, dunque, devono conoscere le caratteristiche dei "potenziali imprenditori" e del loro ambiente per poter prendere decisioni che si traducano in una pianificazione coerente ed efficace.

Soprattutto oggi, con la crisi derivante dalla pandemia del Covid-19, questo si traduce in una sfida che gli studiosi di tutto il mondo devono accettare, per formare le nuove generazioni ad una gestione più flessibile e autonoma dei ruoli professionali e personali, per la quale i processi di cambiamento vengano percepiti come occasione di crescita, piuttosto che come un limite. Questa concezione trova una collocazione all'interno della psicologia positiva che, ponendo l'individuo al centro, lo spinge a sviluppare quelle qualità necessarie a renderlo "employed". Un percorso volto a far acquisire "*a range of essential skills and attributes, to make a unique, innovative and creative contribution in the world of work*" (Kozlinska, 2011, p. 207).

Pertanto il problema va affrontato a livello sistemico dove diversi fattori entrano in gioco, promuovendo o, viceversa, ostacolando l'intenzione imprenditoriale degli individui.

La presente Tesi Dottorale, attraverso 5 pubblicazioni scientifiche, si pone l'obiettivo generale di contribuire alla comprensione del legame tra diverse variabili, psicologiche, contestuali e demografiche, e l'intenzione imprenditoriale, analizzando anche gli aspetti che potrebbero ostacolare la scelta di un lavoro di tipo autonomo/imprenditoriale e cercando di proporre soluzioni alternative.

Nello specifico i primi tre studi riguardano delle revisioni sistematiche della letteratura, utili per comprendere il rapporto tra il sostegno della famiglia e l'intenzione imprenditoriale (pubblicazione I), il gap uomo-donna nei livelli di intenzione imprenditoriale (pubblicazione II) e lo studio dell'intenzione imprenditoriale sociale come paradigma che potrebbe attenuare la differenza di genere (pubblicazione III).

La quarta pubblicazione comprende la validazione della scala sui bisogni psicologici di base (*Basic Psychological Needs Satisfaction and Frustration Scale* – BPNSFS; Chen et al., 2015) nel contesto spagnolo. Questo studio rappresenta un passo fondamentale per le ipotesi sviluppate nella pubblicazione V.

Nel quinto studio, infatti, è stata analizzata l'influenza che le variabili psicologiche (soddisfazione dei bisogni psicologici di base, proattività e ottimismo) e un contesto percepito come insicuro (con specifico riferimento alla percezione della pandemia da Covid-19) hanno sulle intenzioni imprenditoriali degli studenti universitari dell'America Latina, nonché il ruolo di mediazione della proattività e dell'ottimismo.

I risultati hanno confermato le ipotesi di questa Tesi Dottorale. Nello specifico dalle analisi di revisione della letteratura è stata dimostrata l'influenza positiva della famiglia, sia in termini di modelli di ruolo, che di semplice supporto, come fattore cruciale per implementare le intenzioni imprenditoriali dei figli. La seconda pubblicazione ha indagato la letteratura sulla differenza uomo-donna riguardo ai livelli di intenzione imprenditoriale, sottolineando le barriere e gli ostacoli che devono superare le donne nel mondo degli affari (soprattutto di tipo socio-culturale e psicologiche), che rimandano, da un lato, ad una visione stereotipata della donna ancorata a certi ruoli sociali (in termini di cura della famiglia e difficoltà ad accedere ai finanziamenti pubblici), dall'altra, ad una mancanza di fiducia nelle proprie capacità.

Dall'analisi della letteratura sono emersi, anche, possibili fattori esterni che potrebbero ovviare a tali ostacoli: l'educazione imprenditoriale (utile sia per accrescere i

livelli di intenzione imprenditoriale, ma anche i livelli di self-efficacy imprenditoriale, il supporto della famiglia e l'imprenditorialità sociale).

Alla luce di questi risultati, nella terza pubblicazione é stata analizzata la relazione tra genere e intenzione imprenditoriale sociale. Ciò che emerge dalla letteratura é che la dimensione sociale dell'imprenditorialità si relaziona bene con i valori, le motivazioni e gli obiettivi che spingono le donne verso una carriera imprenditoriale e che, a differenza degli uomini, appaiono più inclini alla soddisfazione di esigenze sociali e comunitarie, e non solo economiche. Infine, vengono anche discusse le variabili che, in letteratura, sono state maggiormente analizzate, come antecedenti dell'intenzione imprenditoriale sociale.

Con specifico riferimento alla quarta pubblicazione, i risultati della validazione della Scala BPNSF nel contesto spagnolo sono stati in línea con i risultati ottenuti dalla validazione della scala in culture e lingue diverse (Chen et al., 2015; Cordeiro et al., 2016; Longo et al., 2016; Del Valle et al., 2018; Liga et al., 2018).

Questi risultati ci hanno permesso di giungere alla quinta pubblicazione che pone in evidenza, da un lato, la relazione positiva tra la soddisfazione dei bisogni psicologici e le intenzioni imprenditoriali degli studenti universitari, dall'altro, la relazione negativa tra percezione del Covid-19 e l'intenzione imprenditoriale. Inoltre la proattività e l'ottimismo, oltre ad influenzare direttamente e in senso positivo l'intenzione imprenditoriale, hanno mediato il rapporto tra le due variabili indipendenti e la variabile dipendente, accrescendo l'importanza della soddisfazione dei bisogni psicologici di base, come fattore motivante nel processo imprenditoriale e diminuendo l'impatto negativo del Covid-19.

Le implicazioni derivanti da questa Tesi Dottorale comprendono due aspetti fondamentali: da un lato, conoscere le relazioni e l'influenza di queste variabili potrebbe essere utile per supportare le politiche pubbliche per l'attuazione di programmi che contribuiscono al rafforzamento delle attività imprenditoriali; dall'altro, evidenziare possibili fattori che possono aiutare a superare gli ostacoli incontrati nella scelta di un lavoro autonomo/imprenditoriale, potrebbe aiutare, soprattutto le nuove generazioni, a superare l'incertezza e l'insicurezza che contraddistinguono l'attuale contesto, convertendoli in attori competenti e non semplicemente osservatori della propria vita.

Parole chiavi: Intenzione Imprenditoriale, Famiglia, Donna, Imprenditorialità Sociale, Covid-19, Bisogni Psicologici di Base, Variabili Psicologiche.

Organización de la Tesis Doctoral

De acuerdo con el RD 99/2011, del 28 de enero, por el que se regulan las enseñanzas oficiales de doctorado, la Comisión de Doctorado y Postgrado de la Universidad de Salamanca establece como posible formato la presentación de Tesis Doctoral la modalidad de Tesis por Compendio de Artículos revisados por pares, publicados en revistas especializadas y de impacto. Así, la presente Tesis Doctoral se presenta bajo esta modalidad, optando además a la mención de Doctor Internacional.

Las publicaciones incluidas en este compendio de Tesis Doctoral son:

1. Cardella, G. M.¹, Hernández Sánchez, R. B.², & Sánchez García, J. C.³ (2020). Entrepreneurship and Family Role: A Systematic Review of a Growing Research. *Frontiers in Psychology, 10*, 2939. <https://doi.org/10.3389/fpsyg.2019.02939>.

ISSN: 1664-1078/ EISSN: 1664-1078

JCR WOS, 2020: Cuartil 2 (42/140) Psychology, Multidisciplinary

Factor de impacto 2.990

2. Cardella G. M.¹, Hernández Sánchez, R. B.², & Sánchez García, J. C.³ (2020). Women Entrepreneurship: A Systematic Review to Outline the Boundaries of Scientific Literature. *Frontiers in Psychology, 11*, 1557. <https://doi.org/10.3389/fpsyg.2020.01557>.

ISSN: 1664-1078/ EISSN: 1664-1078

JCR WOS, 2020: Cuartil 2 (42/140) Psychology, Multidisciplinary

Factor de impacto 2.990

3. Cardella G. M.¹, Hernández Sánchez, R. B.², Monteiro, A. A.⁴, & Sánchez García, J.³ C. (2021). Social Entrepreneurship Research: Intellectual Structures and Future Perspectives. *Sustainability, 13*, 7532. <https://doi.org/10.3390/su13147532>.

EISSN: 2071-1050

JCR WOS, 2020: Cuartil 2 (60/125) Environmental Studies

Factor de impacto 3.251

4. Cardella G. M.¹, Hernández Sánchez, R. B.², & Sánchez García, J. C.³ (2020). Basic Psychological Needs as a Motivational Competence: Examining Validity and Measurement Invariance of Spanish BPNSF Scale. *Sustainability*, *12*, 5422. <https://doi.org/10.3390/su12135422>.

EISSN: 2071-1050

JCR WOS, 2020: Cuartil 2 (60/125) Environmental Studies

Factor de impacto 3.251

5. Hernández Sánchez, R. B.², Cardella, G. M.¹, & Sánchez García, J. C.³ (2020). Psychological Factors that Lessen the Impact of COVID-19 on the Self-Employment Intention of Business Administration and Economics' Students from Latin America. *International Journal of Environmental Research and Public Health*, *17*, 5293. <https://doi.org/10.3390/ijerph17155293>.

EISSN: 2071-1050

JCR WOS, 2020: Cuartil 1 (41/176) Public, Environmental & Occupational Health

Factor de impacto 3.390

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Presentación y Estructura de la Tesis Doctoral

PRESENTACIÓN Y ESTRUCTURA DE LA TESIS DOCTORAL

Esta Tesis Doctoral constituye un compendio de cinco artículos científicos que abordan el análisis de algunas variables que la literatura considera como antecedentes de la intención emprendedora, para comprender su influencia en el proceso emprendedor (en la brecha intención-comportamiento) y explicar qué más factores entran en juego en la elección de una carrera emprendedora.

De esta forma, la Tesis Doctoral se organizó en cinco capítulos, más dos apartados relacionados con las referencias bibliográficas y apéndices. En este apartado se describirán brevemente los diferentes capítulos incluidos, así como los aspectos esenciales de cada uno de ellos.

Capítulo 1: Introducción y Justificación. En este primer capítulo se presenta un detallado marco teórico en el que enmarcar el presente trabajo, que lo contextualiza y facilita la comprensión de las necesidades científicas y prácticas que han orientado sus objetivos. Es importante tener en cuenta que, si bien todas las publicaciones científicas contienen un marco teórico, los requisitos de publicación actuales implican que deben ser muy breves y es muy útil que este marco teórico se presente de manera unificada. Por tanto, en primer lugar, se aborda el concepto de intención emprendedora, a través de las definiciones más importantes presentes en la literatura, así como los estudios que han contribuido a la demostración empírica de la relación entre intención y comportamiento.

A continuación, se describen los principales modelos teóricos de intención emprendedora, prestando especial atención a la Teoría del Comportamiento Planificado (*Theory of Planned Behavior-TPB*) de Ajzen (1991) y al Modelo del Evento Emprendedor (*Entrepreneurial Event Model-EEM*) de Shapero y Sokol (1982). Por tanto, se revisan los factores (psicológicos, contextuales y demográficos) que los académicos, a lo largo de los años, han analizado en relación con la intención emprendedora, con especial atención a las variables que constituyen el objeto de estudio de esta Tesis Doctoral (papel de la familia, género, satisfacción de necesidades psicológicas básicas y la importancia de los factores contextuales, prestando atención a la percepción de la pandemia Covid-19). Finalmente, se resumen todas las limitaciones encontradas y se ofrece la justificación del propósito de la Tesis Doctoral.

Capítulo 2: Objetivos y Hipótesis. En este capítulo se presentan los objetivos (generales y específicos), así como las hipótesis, que justifican esta tesis doctoral. Las hipótesis implementadas se recogen en las publicaciones científicas que se han agregado en el Capítulo 4 (Compendio de Publicaciones Científicas).

Capítulo 3: Aspectos Metodológicos. Este apartado hace referencia a la metodología y al tipo de análisis que se ha utilizado en las distintas publicaciones científicas. Se describirán, específicamente, los aspectos metodológicos utilizados en las tres revisiones sistemáticas y el tipo de análisis que se ha realizado, así como los tipos de herramientas utilizadas, para la validación de la escala y para el estudio empírico.

Capítulo 4: Compendio de Publicaciones Científicas. Este capítulo puede considerarse el fundamento principal de esta Tesis Doctoral ya que se recopilan las cinco publicaciones científicas. En concreto, los 3 primeros artículos son revisiones sistemáticas de la literatura que analizan el papel de la familia (Cardella, Hernández-Sánchez y Sánchez-García, 2020), la diferenciá de género (Cardella, Hernández-Sánchez y Sánchez-García, 2020) y la cuestión de género en la intención social emprendedora (Cardella, Hernández-Sánchez, Monteiro y Sánchez-García, 2021).

El cuarto artículo (Cardella, Hernández-Sánchez y Sánchez-García, 2020) se centra en la validación de la versión española della escala BPNSF desarrollada por Chen et al. (2015). Este es un paso fundamental para las hipótesis que se han postulado en la quinta publicación.

De hecho, la quinta publicación (Hernández-Sánchez, Cardella y Sánchez-García, 2020) se centró en el análisis de la influencia de factores psicológicos y contextuales en la intención emprendedora de los estudiantes universitarios.

En este sentido, se ha agregado un resumen ejecutivo, antes de cada artículo, para facilitar al lector la comprensión de los estudios presentados.

Capítulo 5. Discusión y Conclusiones. Todos los artículos presentados contienen una sección que aborda la discusión específica y las conclusiones de cada estudio. Sin embargo, en esta sección, los resultados se discuten en detalle con respecto a las hipótesis planteadas en esta Tesis. El capítulo termina con algunas conclusiones generales como síntesis de los resultados obtenidos. Las conclusiones están redactadas en español, inglés e italiano, ya que se trata de una disertación con mención de doctorado internacional.

6. Referencias Bibliográficas. Este capítulo incluye las referencias que aparecen en el capítulo 1 (introducción y justificación), el capítulo 3 (aspectos metodológicos), los resúmenes del capítulo 4 y el capítulo 5 (discusión y conclusiones). No se han incluido las referencias bibliográficas específicas de cada publicación científica. Además, todas las referencias se han redactado en el formato APA (American Psychological Association, 2020) en su séptima edición.

7. Apéndices. Se han incluido tres apéndices con el fin de proporcionar el material complementario útil para la comprensión de esta Tesis Doctoral. La versión española de la escala BPNSF completa se muestra en el primer apéndice.

En el segundo apéndice se incluye el cuestionario sobre la percepción de Covid-19, se trata de un cuestionario *ad hoc* que ha mostrado buenas cualidades psicométricas y que, actualmente, se encuentra en revisión de una revista para su publicación.

Finalmente, el tercer apéndice incluye todas las herramientas complementarias utilizadas: las subescalas de intención emprendedora y proactividad del Cuestionario de Orientación Emprendedora (COE) (Sánchez-García, 2010); la subescala de optimismo del cuestionario PROE (Sánchez-García, 2016).

Capitolo 1

Introduzione e Giustificazione

1.1 L'intenzione imprenditoriale come determinante del comportamento umano

L'imprenditorialità svolge un ruolo importante per la crescita economica e il benessere sociale di una nazione, in quanto strettamente connessa all'aumento dell'innovazione e alla generazione di opportunità di lavoro (Atems & Shand, 2018; Esfandier et al., 2019; Neumann, 2021).

La relazione tra imprenditorialità e occupazione è stata analizzata in diversi contesti (Fölster, 2000). Ad esempio, secondo Audretsch et al., (2015) che hanno condotto uno studio transnazionale su 127 paesi europei, l'aumento delle attività imprenditoriali ha fatto registrare un abbassamento dei tassi di disoccupazione, relativamente al periodo 1994-2009. Alle stesse conclusioni sono giunti Delfmann & Koster (2016) che hanno analizzato gli effetti della creazione di nuove imprese nei Paesi bassi (tra il 1996 e il 2010). I loro risultati hanno dimostrato che, soprattutto per i contesti con un modesto calo demografico, le nuove imprese si confermano un importante generatore di creazione di nuovi posti di lavoro.

Nonostante l'indubbia importanza e decenni di ricerca, la definizione di imprenditorialità appare tutt'altro che univoca (Gries & Naudé, 2011). La spiegazione centrale risiede nella complessità che caratterizza il fenomeno imprenditoriale, analizzato, talvolta, come un processo, altre come una risorsa, altre ancora come uno “*state-of-being*” (Naudé, 2013), che coinvolge diversi tipi di attività con caratteristiche tecniche, umane e gestionali, che richiedono competenze differenti.

Inoltre, come Shane & Venkataraman (2000) hanno sottolineato, si tratta di un processo che è strettamente relazionato alla prospettiva del ricercatore (ad es., prospettiva economica, psicologica, sociale, manageriale) e che contribuisce al suo carattere multidimensionale (Bula, 2012).

Inoltre, la letteratura sui possibili fattori che possono promuovere le attività imprenditoriali appare molto frammentata e rimanda ad una varietà di variabili, quali soprattutto, le caratteristiche personologiche e psicologiche dei potenziali imprenditori (Pfeifer et al., 2016; Ahmed et al., 2017; Deprez et al., 2019; Munir et al., 2019; Shmallo et al., 2021), così come alle variabili contestuali (Fetais et al., 2019; Ahadi & Kasraie, 2020; Fen & Ho, 2020; Gangi & Kebaili, 2020; Doanh, 2021).

Questi fattori, molto spesso, vengono considerati come variabili isolate, senza una chiara operazionalizzazione logica e teorica (Zhao et al., 2005), portando ad un potere esplicativo deludente e ad una validità predittiva insignificante (Krueger et al., 2000).

Ricerche precedenti hanno dimostrato che l'intenzione è il miglior predittore del comportamento imprenditoriale (Bird, 1988; Krueger & Carsrud, 1993), dunque, indagare e comprendere l'intenzione imprenditoriale è fondamentale poiché una forte intenzione si potrebbe tradurre nella possibilità di implementare le attività imprenditoriali.

Una definizione di “intenzione”, ampiamente riconosciuta in letteratura, è stata fornita da Ajzen (1991), secondo il quale rappresenta l’insieme delle indicazioni circa la disponibilità di una persona di eseguire un determinato comportamento, sotto il controllo volontario. Nello specifico, la volontà nelle intenzioni è stato uno dei motivi principali per il quale, tutt’oggi, viene considerato un fattore cardine e determinante nella previsione del comportamento umano e dei modelli socio-psicologici ad essa associati (Sheeran, 2002).

Nel contesto imprenditoriale (Tabella 1), l'intenzione viene definita come lo stato d'animo che dirige e guida l'attenzione, l'esperienza, le azioni, la definizione degli obiettivi, la comunicazione, l'impegno e l'organizzazione di una persona verso l'attuazione del comportamento imprenditoriale (Bird, 1988; Boyd & Vozikis, 1994; Fini et al., 2012).

Tabella 1. Definizioni di “Entrepreneurial Intention” maggiormente utilizzate in letteratura

Bird (1988)	State of mind that focuses a person's attention, experience, and action toward a business concept, which set the form and direction of organizations at their inception
Krueger (1993, 2005)	The potential or tendency of an individual to start a new business in the future. Until 2005, he added that entrepreneurial intention can be viewed as a cognitive process that is identified immediately before the act of starting a business.
Boyd & Vozikis (1994)	Thought processes structured by both rational/analytic thinking (goal-directed behavior) and intuitive/holistic thinking (vision). These thought processes underlie the creation of formal business plans, opportunity analysis, and other goal-directed behavior.
Crant (1996)	One's judgements about the likelihood of owning one's own business.
Jenkins & Johnson (1997)	The desires and ideas of the individual, outcomes with the performance of the business.
Liñán (2004)	The effort that the person will make. to carry out that entrepreneurial behaviour

Fayolle (2007)	The cognitive representation of a person`s will to perform a particular behaviour that is considered to be a good predictor of planned and controllable human behaviour
Thompson (2009)	A self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future.

Secondo Thompson (2009), l'intenzione imprenditoriale non è una decisione basata su un processo binario "sì o no"; piuttosto, si estende lungo un continuum che va dalla mera preferenza per il lavoro autonomo, rispetto alla scelta di un lavoro pubblico, all'impegno costante verso una carriera imprenditoriale, che porta alla nascente imprenditorialità.

Al di là delle specificità operazionali, ciò che la letteratura ha dimostrato è che, in linea generale, gli individui che manifestano l'intenzione di avviare un'impresa mettono in atto una serie di comportamenti specifici che portano alla sua riuscita (Ajzen & Fishbein 1977; Ajzen 1991), motivo per cui, l'esame dell'intenzione imprenditoriale è un approccio significativo allo studio del comportamento imprenditoriale effettivo, in quanto maggiore è l'intensità dell'intenzione, maggiore sarà la probabilità che si verifichi il comportamento imprenditoriale (Botsaris & Vamvaka, 2016).

Inoltre, l'importanza di esaminare l'intenzione imprenditoriale appare evidente, anche, da recenti studi empirici sul campo che ne hanno testato la sua valenza empirica (Al-Jubari, 2019; Kowalik, 2020; Wu et al., 2020; Feriady et al., 2021; Haddad et al., 2021).

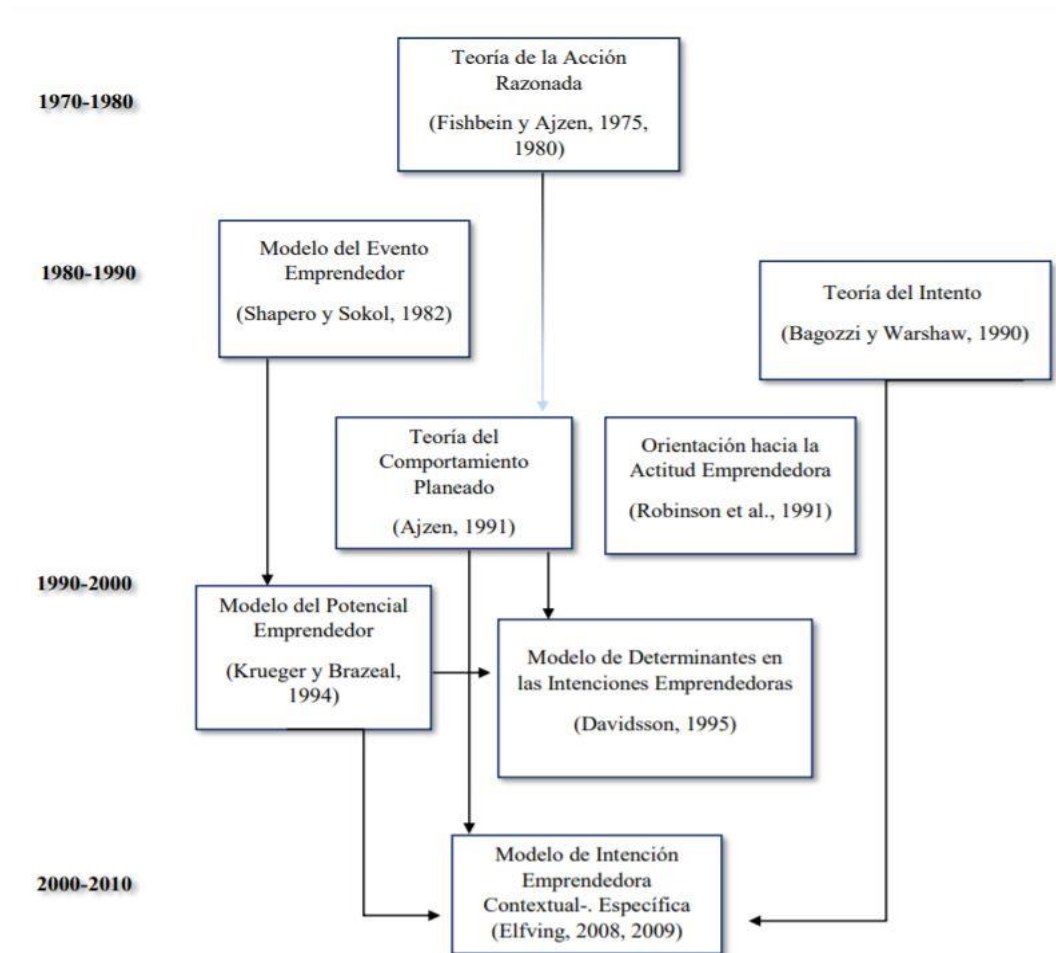
Nello specifico, la ricerca ha rilevato l'importanza di analizzare i modelli basati sull'intenzione (*intention-based models*) per spiegare gli antecedenti delle intenzioni imprenditoriali (EI) e prevederne le conseguenze a lungo termine (Krueger et al., 2000).

I modelli basati sull'intenzione aiutano a comprendere e prevedere i comportamenti pianificati degli individui, come ad es., avviare un'impresa, e spiegano come i potenziali imprenditori percepiscono le opportunità e le risorse attraverso l'analisi delle loro intenzioni e dei fattori che influenzano e promuovono queste intenzioni (Shepherd & Krueger, 2002).

A tal fine, in letteratura sono emersi diversi modelli che identificano un insieme di costrutti differenti. Come mostra la Figura 1, i primi modelli sono emersi alla fine degli anni Ottanta, e sono basati su teorie provenienti da campi diversi da quello imprenditoriale,

come, ad esempio, la Teoria dell'Azione Ragionata (*Theory of Reasoned Action* di Fishbein & Ajzen, 1975) e la Teoria del Comportamento Pianificato (*Theory of Planned Behavior* di Ajzen, 1991).

Figura 1. Evoluzione storica dei modelli di intenzione imprenditoriale



Fonte: Adattato da Guerrero et al., (2008)

Successivamente sono stati sviluppati altri modelli piú specificamente imprenditoriali, tra cui il Modello dell'Evento Imprenditoriale (*Entrepreneurial Event Model* di Shapero & Sokol, 1982), il Modello di Orientamento verso l'Attitudine Imprenditoriale (*Entrepreneurial Attitude Orientation Model* di Robinson et al., 1991), il Modello del Potenziale Imprenditoriale (*Entrepreneurial Potential Model* di Krueger & Brazeal, 1994), il modello delle Determinanti delle Intenzioni Imprenditoriali (*Determinants of Entrepreneurial Intentions Model* di Davidsson, 1995) fino ad arrivare al

Modello Contestuale delle Intenzioni Imprenditoriale (*Contextual Model of Entrepreneurial Intentions* di Elfing, 2008, 2009).

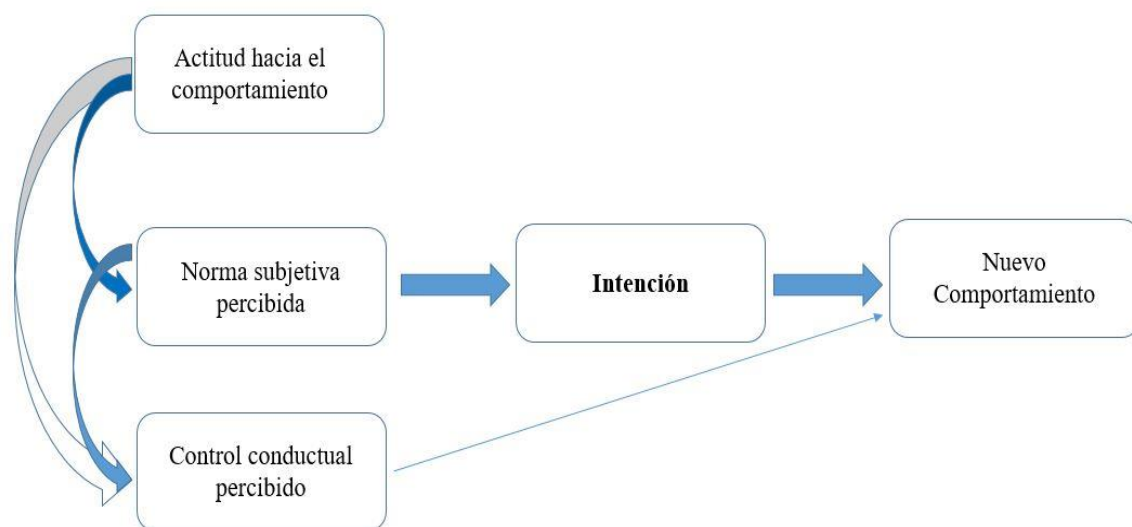
Per esemplificare, a continuazione verranno descritti due modelli, ampiamente ed empiricamente testati, che hanno ricevuto un maggiore consenso nella letteratura internazionale: la Teoria del Comportamento Pianificato (TPB) (Ajzen, 1991) che é propria del campo della psicologia sociale, e il Modello dell'Evento Imprenditoriale (EEM) (Shapero & Sokol, 1982) che é specifica del settore imprenditoriale.

Questi modelli sono centrali per la ricerca sull'imprenditorialità ancora oggi, e offrono un approccio più sistematico alla letteratura.

1.2 La Teoria del Comportamento Pianificato

Tra i modelli di intenzione esistenti, la Teoria del Comportamento Pianificato (*Theory of Planned Behavior - TPB*) di Ajzen (1991) è stata quella ampiamente analizzata nella letteratura sull'imprenditorialità. La TPB si basa sulla premessa che tre determinanti forniscono la base motivazionale che permette il passaggio dall'intenzione verso un determinato comportamento: (a) l'Attitudine Verso il Comportamento, (b) le Norme Soggettive e (c) il Controllo Comportamentale Percepito (Fig. 1).

Figura 1. Componenti della Teoria del Comportamento Pianificato (Ajzen, 1991)



Fonte: Ajzen (1991)

L'attitudine verso il comportamento (*Attitude Toward the Behavior - ATE*) si riferisce alla valutazione positiva o negativa che un individuo fa nei confronti di un comportamento specifico (Ajzen, 1991).

Liñán e Chen (2009) hanno spiegato questo costrutto in termini di vantaggi o svantaggi, mentre altri lo hanno definito come l'attitudine, più o meno marcata, di diventare un imprenditore (Maes et al., 2014). Precedenti studi hanno confermato che l'ATE è il fattore più influente nell'intenzione, compresa l'opportunità di intraprendere una carriera imprenditoriale (Liñán et al., 2011; Kautonen et al., 2013; Roy et al., 2017).

Le norme soggettive (*Subjective Norm - SN*) fanno riferimento alla misura in cui un individuo percepisce che il proprio comportamento è coerente con i pensieri di altre persone che sono affettivamente e positivamente importanti.

Gli individui, infatti, nella messa in atto di un comportamento, e dunque, anche, nell'avvio di un'impresa, prendono in considerazione l'approvazione o la disapprovazione che ricevono dalle relazioni strette, che fanno parte del loro ambiente (Liñán & Chen, 2009; Shinnar et al., 2012).

Precedenti studi hanno rivelato risultati inconsistenti, ad esempio, nello studio di Schlaegel & Koenig (2014) l'ATE è risultato il predittore più significativo nella scelta di una carriera imprenditoriale, altri studi (ad es., Krueger et al., 2000; Autio et al., 2001; Marques et al., 2012) non hanno trovato nessuna relazione significativa tra ATE ed EI, enfatizzando, invece, l'influenza della norma soggettiva nella scelta di una carriera imprenditoriale.

Infine, **il controllo comportamentale percepito** (*Perceived Behavioral Control – PBC*) è stato considerato il costrutto più controverso nel quadro della Teoria del Comportamento Pianificato, in parte a causa dell'incoerenza nei risultati empirici e, in parte, a causa del disaccordo riguardo alla sua concettualizzazione e operazionalizzazione (Yap et al., 2013).

Il PBC è stato definito come la percezione dell'individuo circa la facilità o difficoltà di eseguire il comportamento specifico (Ajzen, 1991).

In letteratura, questo determinante è stato sovrapposto, in gran parte, al costrutto di autoefficacia percepita proposto da Bandura (1989), vale a dire, l'insieme delle convinzioni personali riguardo alle proprie capacità di riuscire nell'esecuzione del comportamento.

L'opinione che la PBC e l'autoefficacia siano essenzialmente costrutti simili ha portato un certo numero di ricercatori a sostituire nei loro studi la PBC con l'autoefficacia (Krueger et al., 2000; Kolvereid & Isaksen, 2006; van Gelderen et al., 2008; Liñán et al., 2011; Moriano et al., 2012).

Altri ricercatori (es. Armitage & Conner, 2001; Kraft et al., 2005; Vamvaka et al., 2020), tuttavia, hanno fornito prove empiriche sulla questione che la PBC, così come è stata operazionalizzata da Ajzen (2002), sia in realtà una variabile differente, formata da due elementi costitutivi, ossia l'autoefficacia e la controllabilità percepita.

Nello specifico, l'autoefficacia comprende l'insieme dei fattori di controllo interno come la conoscenza e le abilità e riflette la propria percezione circa la capacità, e dunque la difficoltà, di intraprendere un comportamento specifico, nonché la propria fiducia nella propria capacità di eseguire il comportamento. D'altra parte, invece, la controllabilità percepita comprende fattori di controllo esterni, come risorse, opportunità e potenziali barriere. Pertanto, l'opinione prevalente oggi è che la PBC debba essere considerata come un costrutto separato dall'autoefficacia percepita (Armitage & Conner, 2001; Ajzen, 2002; Kraft et al., 2005; Courneya et al., 2006; Schlaegel & Koenig, 2014).

La Teoria del Comportamento Pianificato è un'estensione della Teoria dell'Azione Ragionata (Ajzen & Fishbein 1980), in quanto riesce ad affrontare una limitazione nella previsione del comportamento rispetto al modello precedente (Ajzen & Fishbein, 1977; Ajzen & Fishbein, 1980), fornendo un quadro concettuale più specifico per esaminare l'intenzione.

La Teoria del Comportamento Pianificato ha ricevuto molti supporti empirici, tuttavia, gli studiosi hanno suggerito di incorporare altre variabili salienti oltre alle tre determinanti del modello originale presentato da Ajzen (1991).

Ad esempio, Buttar (2015) ha dimostrato che il capitale sociale, ossia le relazioni personali che influenzano il comportamento di un individuo, predice indirettamente l'intenzione imprenditoriale essendo associato ai componenti del TPB. Anche l'esperienza imprenditoriale pregressa e l'educazione hanno mostrato forti influenze sull'intenzione imprenditoriale, essendo correlate alle componenti del TPB (Yang, 2013).

L'idea di fondo è che i tre determinanti proposti da Ajzen (1991) possono avere dei vincoli a causa del modo in cui sono stati operazionalizzati. Ad esempio, secondo Terry et

al. (2000), chiedere alle persone di indicare il loro grado di accordo con affermazioni come “le persone importanti per me approverebbero/non approverebbero...” è molto generico e può lasciare gli intervistati incerti su chi si faccia esattamente riferimento con “le persone importanti per me”, il che può, in alcuni casi, indebolire il potere predittivo delle norme soggettive.

Per Vesely & Klöckner, (2018), un'altra spiegazione potrebbe derivare dal fatto che, anche se gli intervistati possano fare riferimento a persone che sono affettivamente importanti per loro, ovvero persone con cui condividono relazioni forti e significative e che abbiano un peso nella decisione di intraprendere o meno un determinato comportamento, tuttavia, possono esistere contesti in cui la rilevanza di questo tipo di persone è inferiore, lasciando spazio agli effetti di altri tipi di influenza normativa.

A livello interculturale, Liñán et al., (2013) hanno dimostrato che le norme influenzano indirettamente l'intenzione imprenditoriale degli studenti universitari attraverso l'attitudine e il controllo comportamentale percepito, sia in Spagna che nel Regno Unito. Tuttavia, la relazione tra attitudine verso il comportamento e intenzione imprenditoriale era più forte in Spagna, mentre la relazione tra il controllo comportamentale percepito e l'intenzione imprenditoriale era più forte nel Regno Unito.

L'incoerenza nei risultati empirici indica la necessità di rimodulare le determinanti della Teoria del Comportamento Pianificato in culture diverse (Siu & Lo, 2013), sollevando preoccupazioni riguardo al ruolo moderatore del contesto nella relazione tra le tre determinanti dell'intenzione imprenditoriale e il comportamento effettivo.

1.3 Il Modello dell'Evento Imprenditoriale

Un altro modello di intenzione consolidato e specifico del contesto imprenditoriale, è il Modello dell'Evento Imprenditoriale (*Entrepreneurial Event Model* - EMM) sviluppato da Shapero & Sokol, 1982 e che è stato formulato nove anni prima della già citata teoria di Ajzen (1991).

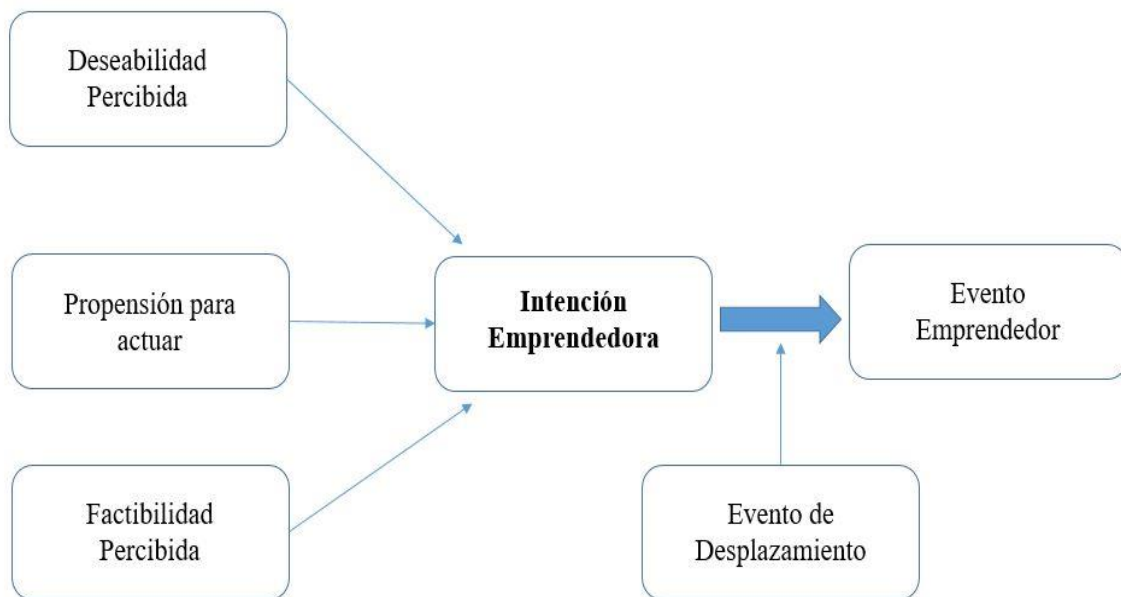
Il Modello dell'Evento Imprenditoriale presuppone che due prerequisiti debbano essere soddisfatti prima di avviare una nuova impresa. Secondo Shapero & Sokol (1982), in primo luogo, un individuo deve percepire l'idea di avviare una attività come credibile, cioè, deve considerare questa idea attraente e realizzabile. In secondo luogo, l'intenzione di avviare un'impresa deve essere scatenata da un qualche tipo di evento, che può assumere

la forma di esperienza neutra, negativa o positiva (Ayob et al., 2013), ad esempio, la perdita del lavoro o un divorzio, oppure la ricezione di un'eredità o di un capitale da parte di uno stakeholder (Shapero & Sokol, 1982; Krueger et al. 2000).

Lo spostamento sperimentato dall'evento comporterà un cambiamento nel comportamento, e se l'individuo considera credibile l'idea di avviare un'impresa, agirà in base a questa sensazione.

Inoltre, in questo modello, la fattibilità percepita, la desiderabilità percepita e la propensione ad agire influenzano l'intenzione e, a sua volta, il comportamento di un individuo di avviare un'impresa (Shapero & Sokol, 1982) (Fig. 2).

Figura 2. Componenti del Modello dell'Evento Imprenditoriale



Fonte: Shapero & Sokol (1982)

Shapero (1984) spiega che i meccanismi alla base dell'EEM sono più complicati di quanto sembra. In casi particolari solo la fattibilità percepita e la desiderabilità percepita saranno un'indicazione sufficiente dell'intenzione imprenditoriale, mentre in altri casi la varianza sarà spiegata da tutti e tre i predittori.

Un altro aspetto interessante di questo modello è la natura complessa della propensione all'azione. Questo predittore non solo ha un effetto diretto nel determinare

l'intenzione imprenditoriale, ma modera anche gli effetti con altre variabili all'interno del modello dell'EEM.

Allo stesso tempo, la fattibilità percepita e la desiderabilità percepita sono modellate da diverse variabili situazionali, fattori sociali, caratteristiche individuali e ambiente culturale. Pertanto, come sottolineano gli autori, la sufficienza del modello varierà a seconda del contesto in cui viene applicato (Shapero & Sokol, 1982).

In generale si è scoperto che la **Desiderabilità Percepita** (*Perceived Desirability*) gioca un ruolo fondamentale nel determinare l'intenzione imprenditoriale. Questa percezione è solitamente modellata attraverso gli atteggiamenti e le credenze dell'individuo nel momento che decide di avviare un'impresa (Krueger, 1993).

Questi atteggiamenti e convinzioni possono essere modellati attraverso vari fattori, ad esempio, si è scoperto che l'educazione all'imprenditorialità incoraggia la desiderabilità verso l'avvio di una impresa (Gorman et al., 1997). Altre ricerche hanno mostrato che modelli di ruolo significativi, o uomini d'affari di successo, potrebbero concorrere ad aumentare l'attrattiva nei confronti della scelta di una carriera imprenditoriale (Wilson et al., 2004).

Nei casi in cui gli individui hanno atteggiamenti favorevoli verso l'imprenditorialità e hanno convinzioni positive sull'imprenditorialità, percepiranno questa carriera professionale come una scelta desiderata. Livelli più elevati di desiderabilità percepita sono associati a un livello più elevato di intenzione imprenditoriale (Shapero & Sokol, 1982).

La **Fattibilità Percepita** (*Perceived Feasibility*) è stata identificata come un altro costrutto importante dell'intenzione imprenditoriale. Il fattore chiave che sta alla base di questa percezione è la valutazione di un individuo riguardo al fatto che abbia le capacità necessarie per avviare un'impresa (Shapero & Sokol, 1982; Krueger, 1993).

Godsey & Sebor (2010) hanno spiegato che il livello di fattibilità percepita di un individuo è influenzato positivamente dall'autoefficacia imprenditoriale. L'idea di base è che gli individui di solito evitano compiti o comportamenti che percepiscono essere al di fuori della loro portata. Tuttavia, quando questa caratteristica è influenzata da fattori esterni (ad es. supporto percepito, cultura di riferimento, educazione) può condurre a risultati positivi. Ad esempio, l'istruzione potrebbe consentire alle persone di acquisire le competenze e le conoscenze necessarie per avviare un'impresa. Gli individui che

possiedono le competenze necessarie spesso sentono che avviare un'impresa è un evento fattibile, oltre che desiderabile (Godsey & Sebor, 2010).

Infine, la **Propensione ad Agire** (*Propensity to Act*) è stata identificata come una caratteristica di personalità chiave degli imprenditori. Shapero (1975) associa questa variabile al locus of control interno e ha persino suggerito di utilizzare una scala del locus of control interno come proxy della propensione ad agire, in assenza di misure appropriate.

Secondo Rotter (1966) il locus of control interno si riferisce alla percezione che l'individuo ha circa la propria capacità di influenzare gli eventi della propria vita. Gli individui che hanno un locus of control interno credono di avere un controllo diretto sulla propria vita, invece gli individui che hanno un locus of control esterno, attribuiscono gli eventi della propria vita a fattori esterni (Begley & Boyd, 1987).

Il tipo di controllo determina se un individuo ha la capacità di eseguire un proprio piano d'azione in modo indipendente (Gurel et al., 2010).

Molti ricercatori hanno confermato l'utilità di questo modello nella previsione dell'intenzione imprenditoriale (Krueger et al., 2000; Ranga et al., 2019; Mikić et al., 2020). Ad esempio, nello studio di Krueger & Brazeal (1994) le tre componenti di questo modello hanno spiegato circa il 50% della varianza sulle intenzioni imprenditoriali. Il miglior predittore è stato la fattibilità percepita.

Tuttavia, come hanno sottolineato Shapero & Sokol (1982) i risultati ottenuti dalle analisi possono differire a seconda del contesto di riferimento e, inoltre, non tutte le variabili possono avere un effetto significativo sull'intenzione imprenditoriale.

Il fatto che non tutti i predittori possano essere considerati antecedenti dell'intenzione imprenditoriale, non implica che l'EEM non sia un modello valido, piuttosto, spiega quali predittori sono più importanti nella previsione dell'EI in un determinato contesto.

Il TPB e l'EEM condividono alcune somiglianze, vale a dire, l'associazione tra le loro variabili di previsione e il modo in cui questi modelli controllano gli effetti delle variabili esterne. I ricercatori hanno sostenuto che il controllo comportamentale percepito e la fattibilità percepita sono entrambi concettualmente associati all'autoefficacia. Sia il controllo comportamentale che la fattibilità percepita misurano concettualmente un costrutto simile, cioè le percezioni dell'individuo circa le competenze necessarie per avviare un'impresa (Krueger, 1993; Krueger et al., 2000; Schlaegel & Koenig, 2014).

Si è anche sostenuto che l'atteggiamento verso il comportamento e la desiderabilità percepita siano associati l'uno all'altro. Gli atteggiamenti verso il comportamento di solito modellano la desiderabilità percepita e il grado in cui un individuo trova attraente l'idea di avviare un'impresa può influenzare il suo atteggiamento (Krueger et al., 2000). È per questo motivo che i ricercatori hanno spesso mescolato gli antecedenti di questi modelli o sostituito un predittore con un altro. Questo dipende dai ricercatori e da come i predittori sono stati concettualizzati all'interno dei loro studi. Molti ricercatori sono anche scettici sulla sufficienza di questi modelli nel predire l'intenzione imprenditoriale a causa del ruolo delle variabili di controllo. Tuttavia, Ajzen (2002) afferma che il TPB tiene conto di fattori esterni, come dati demografici, fattori contestuali e tratti della personalità. Queste variabili di controllo influenzano i tre antecedenti dell'intenzione comportamentale invece di avere un impatto diretto su quest'ultima.

Analogamente, Shapero & Sokol (1982) sostengono che nel loro modello anche altre variabili esterne potrebbero concorrere a spiegare l'intenzione imprenditoriale. Tale concezione ha trovato supporto nello studio condotto da Yang (2013) che ha dimostrato una relazione significativa tra gli antecedenti dell'intenzione imprenditoriale e l'esperienza pregressa.

La questione è che le componenti di questi modelli potrebbero non essere gli unici predittori nell'intenzione di avviare un'impresa e che, quando vengono aggiunte ulteriori variabili, una maggiore varianza può essere spiegata dal modello (Lüthje & Frank, 2003; Turker & Selcuk, 2009; Schlaegel & Koenig, 2014).

1.4 I fattori che influenzano l'intenzione imprenditoriale

Oltre alle variabili classiche analizzate nei due modelli di intenzione imprenditoriale descritti in precedenza (Shaper & Sokol, 1982; Ajzen, 1991), in letteratura sono stati analizzati altri diversi fattori per spiegare e comprendere l'intenzione imprenditoriale.

Per facilitare la comprensione di questa sezione, le variabili maggiormente studiate sono state suddivise in 3 categorie: i) fattori psicologici, ii) fattori contestuali e iii) fattori legati alle caratteristiche demografiche. Inoltre, per ciascuna categoria sono state presentate, in modo sintetizzato, le pubblicazioni scientifiche più recenti che hanno analizzato l'effetto di queste variabili sull'intenzione imprenditoriale e le prove empiriche che sono state effettuate:

• **Fattori psicologici.** L'impatto delle caratteristiche psicologiche sull'intenzione imprenditoriale é un argomento classico nel campo dell'imprenditorialità. Secondo Zhao et al., (2005) sono le variabili che maggiormente influenzano la scelta di una carriera imprenditoriale. Peng et al., (2012) definiscono i fattori psicologici come l'insieme delle caratteristiche individuali o di personalità che modulano il comportamento dell'individuo. Questi fattori includono determinanti biologici (come il temperamento), fattori di personalità, motivazioni (come la motivazione al successo) e atteggiamenti e credenze generalizzate (come l'autoefficacia). Pertanto, questa tesi utilizza il termine di fattori psicologici per descrivere l'insieme delle caratteristiche distali dei potenziali imprenditori.

Gli studi sull'imprenditorialità hanno identificato diverse variabili psicologiche come antecedenti delle intenzioni imprenditoriali, tra questi, quelli maggiormente analizzate sono la propensione al rischio (Ferreira et al., 2018; Shahzad et al., 2019; Razak et al., 2020; Poolsawat, 2021), la resilienza (Bullough et al., 2014; Korber & McNaughton, 2017; Renko et al., 2021), l'autoefficacia (Utami, 2017; Khalid et al., 2018; Al-Ghazali & Afsar, 2021; Elnadi & Gheith, 2021), l'ottimismo (Anglin et al., 2018; Madar et al., 2019; Margaça et al., 2021) e la personalità proattiva (Chipeta & Surujlal, 2017; Hu et al., 2018; Neneh, 2019; Naz et al., 2020). Una meta-analisi sui fattori psicologici associati alla creazione di imprese ha dimostrato che anche il bisogno di successo, il bisogno di autonomia, il locus of control e la tolleranza allo stress sono associate all'imprenditorialità (Rauch & Frese, 2007).

In un recente studio effettuato da Sun et al. (2020) allo scopo di analizzare l'impatto delle caratteristiche psicologiche sull'intenzione imprenditoriale, é stato dimostrato che su 80 articoli analizzati, le 4 caratteristiche imprenditoriali piú citate sono state il bisogno di successo (42 citazioni), la propensione al rischio (36 citazioni), il locus of control (33 citazioni) e la creatività (30 citazioni). I risultati inoltre hanno suggerito che la creatività la propensione al rischio hanno un'impatto diretto sull'intenzione imprenditoriale, mentre il locus of control e il bisogno di successo esercitano un effetto indiretto.

Renko et al., (2021) hanno analizzato l'influenza della self-efficacy e della resilienza sulle intenzioni imprenditoriali in circostanze di fragilità e/o stabilità dello stato macro-sociale in 6 paesi (Afghanistan, Iraq, Peru, Tajikistan, Stati Uniti e Finlandia). I risultati hanno mostrato che in condizioni stabili, l'autoefficacia imprenditoriale era il fattore fondamentale e piú forte nello sviluppo dell'intenzione imprenditoriale. Al contrario, in

condizioni avverse (condizioni di fragilità), la resilienza è stata la risorsa più significativa. Il ruolo dei fattori psicologici nel processo di generazione delle intenzioni imprenditoriali rimane un campo di ricerca di punta nella letteratura attuale.

- **Fattori contestuali.** Secondo Arrighetti et al. (2013), nella decisione di avviare una nuova impresa, le valutazioni personali e le motivazioni sono spesso intrecciate con variabili esterne all'individuo (per esempio, supporto della famiglia, capitale sociale, cultura, politiche del Governo, disastri naturali, crisi economiche) che possono ostacolare o facilitare l'intenzione imprenditoriale influenzando il rapporto costi/benefici nella creazione di nuove imprese (Lampadarijos, 2016; Baldini et al., 2018).

Studi precedenti hanno rivelato che i fattori contestuali variano in base alle regioni, all'esistenza di un ambiente favorevole o ostile, al comportamento degli imprenditori e persino al tipo di imprese (Bosma & Schutjens, 2011). Anche la paura del fallimento, la percezione delle opportunità e il livello di conoscenze e competenze per creare un'impresa differiscono da paese a paese (Sternberg, 2010).

Il ruolo delle variazioni contestuali nell'intenzione imprenditoriale è stato enfatizzato da molti studi (es., Hayton et al., 2002; Liñán & Chen, 2009; Vancea & Utzet, 2017; Ahadi & Kasraie, 2020), concordando sulla conclusione che i fattori contestuali sono interiorizzati dagli individui per modellare il loro processo cognitivo e, dunque, mettere in atto il comportamento imprenditoriale (Bercovitz & Feldman, 2008; Turker & Selcuk, 2009; Nguyen, 2018). Tuttavia, i meccanismi dettagliati con cui gli individui interiorizzano i fattori contestuali non hanno ricevuto una risposta chiara. In effetti, Turker & Selcuk (2009) sostengono che negli ultimi anni gli studiosi si sono concentrati solo sull'esame del ruolo di alcuni fattori interni come le caratteristiche psicologiche (Akanbi & Owoseni, 2012), le motivazioni (Camelo-Ordaz et al., 2016), e il background personale (Bird & Brush, 2002; Camelo-Ordaz et al., 2016), trascurando l'influenza dei fattori esterni sulla formazione dell'intenzione imprenditoriale e il loro impatto sul processo decisionale dell'individuo.

Nonostante le difficoltà incontrate nella valutazione e identificazione di questi fattori, gli studiosi concordano sul fatto che caratteristiche personali e attitudine verso il comportamento imprenditoriale interagiscono con l'ambiente esterno (Henderson & Robertson, 2000; Turker & Selcuk, 2009), influenzando lo sviluppo delle intenzioni imprenditoriali (Demneri Kruja, 2020; Duong, 2021).

- **Fattori legati alle caratteristiche demografiche.** Secondo l'analisi effettuata da Pérez-Macías et al., (2021), i fattori demografici che influenzano l'intenzione imprenditoriale maggiormente analizzati in letteratura sono il genere, l'età, il capitale umano (istruzione ed esperienze pregresse). Altre variabili che sono state prese in considerazione, seppur in misura minore, sono state il background familiare, lo stato civile e il livello di ricchezza (Nguyen, 2018; Hüseyin Can & Lütfighak, 2018; Georgescu & Herman, 2020).

Tra i fattori demografici, il genere è una variabile cruciale quando si analizzano le intenzioni imprenditoriali degli studenti universitari. La letteratura indica che i maschi hanno intenzioni imprenditoriali più forti rispetto alle femmine (Peng et al. 2012; Ndofirepi & Rambe, 2018; Vamvaka et al., 2020). Altri studi, tuttavia, non hanno trovato differenze significative tra i due generi (Wilson et al., 2007; Smith et al., 2016; Chaudhary, 2017).

Alcuni studiosi hanno sottolineato che le differenze di genere siano strettamente collegate ai fattori contestuali (Daim et al., 2016). Ad esempio, i risultati dello studio condotto da Vuković et al. (2017) hanno mostrato differenze di genere tra gli studenti croati, ma non tra gli studenti macedoni. Una possibile spiegazione potrebbe derivare dal fatto che l'imprenditorialità sia motivata più dalla necessità, piuttosto che dal riconoscimento delle opportunità, il che fa sì che uomini e donne agiscano allo stesso modo. Un'altra variabile controversa è rappresentata dall'età, molti studi concordano sul fatto che l'età non abbia un'influenza significativa e diretta sull'intenzione imprenditoriale (Franco et al., 2010; Hatak et al., 2015; Chaudhary, 2017). Tuttavia, Choo & Wong (2006) hanno suggerito che gli individui tra i 25 e i 34 anni e con un alto livello di istruzione tendono a mostrare livelli più elevati di intenzione imprenditoriali. A risultati simili giungono Neira et al. (2017) che stabiliscono a 55 anni la soglia massima per maturare l'intenzione di avviare un'impresa.

Anche per quanto riguarda l'istruzione i risultati appaiono discordanti. Se è vero che educare all'imprenditorialità contribuisca a creare una "cultura imprenditoriale", è anche vero che nella realtà le conclusioni sono discordanti e rimandano al tipo e alla qualità delle attività formative che non sempre si traducono in esperienze positive con, conseguente, messa in atto del comportamento imprenditoriale.

Come si è potuto constatare, l'influenza di queste variabili (psicologiche, contestuali e demografiche) sull'intenzione imprenditoriale non è sempre stata chiara e diretta,

mostrando risultati contraddittori. Una possibile spiegazione potrebbe risiedere nell'enorme eterogeneità che caratterizzano gli studi sull'imprenditorialità e nella difficoltà di una chiara e univoca operazionalizzazione dei costrutti. Motivo per cui approfondire questo campo di ricerca e contribuire alla letteratura scientifica è una sfida valida e attuale.

Di seguito verranno approfondite alcuni antecedenti dell'intenzione imprenditoriale, in linea con gli obiettivi e le ipotesi postulati nella presente Tesi Dottorale.

1.4.1 Il supporto della famiglia

Negli ultimi anni in letteratura è stato dimostrato il ruolo della famiglia come fonte di sostegno sia emotivo che finanziario per i potenziali imprenditori (Edelman et al., 2016; Moreno-Gómez et al., 2020; Sofia & Sanjaya, 2021).

Ad esempio, Shen et al. (2017) hanno analizzato il supporto della famiglia sulle intenzioni imprenditoriali degli studenti universitari. I risultati del loro studio hanno dimostrato l'importanza della famiglia nel predire le intenzioni imprenditoriali, con un impatto diretto anche sugli atteggiamenti imprenditoriali.

Il sostegno emotivo della famiglia fa riferimento alla percezione dell'approvazione (un aspetto cruciale nelle culture collettivistiche), che potrebbe rafforzare gli sforzi dei potenziali imprenditori (Shen et al., 2017; Baluku et al., 2020). In termini di sostegno strumentale, la famiglia è anche percepita come la principale fonte di capitale di avviamento per nascenti e giovani imprenditori. Anche se è stato riscontrato che il capitale fornito dalla famiglia non ha un'influenza significativa sull'avvio di un'attività (Edelman et al., 2016), tuttavia, la ricerca dimostra che la maggior parte delle piccole e medie imprese, almeno nelle fasi iniziali, sono finanziate dai genitori (Aldrich & Martinez, 2007).

Da quanto detto appare chiaro il duplice ruolo della famiglia, da un lato fonte di informazione e di aiuto nell'acquisizione o fornitura di capitali, in particolare quelli finanziari (Jaskiewicz et al., 2015), dall'altro, facilita i figli nella decisione di avviare un'impresa, fornendo una spinta motivazionale e contribuendo ad accrescere la fiducia dei figli nelle proprie capacità (Sahban et al., 2016).

Come la letteratura ha dimostrato, i genitori svolgono un ruolo molto importante in tutti gli aspetti della vita di un giovane, ad esempio, influenzano la sua capacità creativa e propensione al rischio, compreso quei punti critici decisionali come la scelta di una carriera

in generale (Lotfizadeh & Heidarzadeh Hanzae, 2014; Stamboulis & Barlas, 2014), e quella imprenditoriale nello specifico (Ahmed et al., 2021), determinando le risposte emotive dell'individuo (Powell & Eddleston, 2013) e divenendo la base per il supporto educativo e istituzionale (Wilder, 2014; Grijalva-Quiñonez et al., 2020).

Analizzando il ruolo del sostegno familiare specificamente nell'ambito imprenditoriale, Edelman et al. (2016) lo hanno considerato come il fattore più importante nella fase di generazione dell'idea, in quanto questa fase richiede un alto livello di supporto emotivo e morale. Poiché il supporto familiare è più influente nella generazione dell'idea e nella sua conversione in azione (Tolentino et al., 2014; Edelman et al., 2016), si può presumere che abbia una forte influenza sulle intenzioni.

Moreno-Gómez et al. (2019) hanno inoltre sottolineato che i genitori possono fungere da modello di ruolo, influenzando le scelte dei figli. Nello specifico, il termine "modello di ruolo" (*Role Model*) sottolinea la tendenza dell'individuo a identificarsi con altre persone che occupano importanti ruoli sociali e la conseguente interdipendenza cognitiva di abilità e modelli di comportamento che ne deriva (Gibson, 2004).

In questo scenario, la famiglia viene a configurarsi come un'importante modello che contribuisce a creare le conoscenze e competenze (know-how) utili per lo sviluppo del processo imprenditoriale (Presutti et al., 2011).

Entrialgo & Iglesias (2017), su un campione di 338 studenti hanno scoperto che i modelli di ruolo genitoriali hanno una maggiore influenza positiva sugli atteggiamenti verso l'imprenditorialità nelle donne rispetto agli uomini; alle stesse conclusioni sono giunti anche Welsh et al., (2021) che hanno dimostrato come la percezione del supporto dei genitori possa alleviare i conflitti di ruolo (lavoro-famiglia) che vivono le donne imprenditrici in Slovacchia.

L'evidenza empirica ci permette di concludere che il sostegno della famiglia può essere una variabile utile per sostenere l'intenzione imprenditoriale e ridurre gli effetti del pregiudizio, soprattutto quelli legati all'imprenditoria femminile, migliorando gli atteggiamenti dell'individuo verso una scelta di carriera imprenditoriale.

1.4.2 La relazione tra genere e intenzione imprenditoriale

Il genere è una dimensione fondamentale dell'ambiente socioculturale e può quindi essere un possibile fattore determinante dell'imprenditorialità, molti ricercatori hanno analizzato il ruolo del genere nelle intenzioni imprenditoriali, ponendo evidenze empiriche a sostegno della tesi che i maschi presentano intenzioni imprenditoriali più forti rispetto alle femmine (Klyver, 2011; Ventura Fernández & Quero Gervilla, 2013; Bertelsen et al., 2017; Outsios & Farooqi, 2017; Rodríguez-Gulías et al., 2018; Sánchez-Torné et al., 2021).

Sebbene il numero di lavori su questo argomento sia aumentato negli ultimi due decenni, la questione del genere nell'imprenditorialità continua a essere relativamente fraintesa. Secondo il rapporto del Global Entrepreneurship Monitor, le donne sono sempre più impegnate nell'imprenditorialità. Si stima che 163 milioni di nuove start-up e 111 milioni di imprese già avviate siano gestite da donne in 74 paesi in tutto il mondo (Kelley et al., 2017). Tuttavia l'evidenza empirica ha indicato, anche, che il numero di iniziative imprenditoriali gestite da uomini è significativamente superiore a quelle gestite dalle donne e che il doppio degli uomini diventano imprenditori rispetto alle donne (Gupta & Gupta, 2015), e che le imprese femminili affrontano tassi di crescita, vendite e profitti inferiori rispetto a quelle gestite dagli uomini (Ahl, 2006). Quest'ultimo dato è stato dimostrato in molti paesi (Hui-Chen et al., 2014; Joensuu-Salo et al., 2015; Rico & Cabrer-Borrás, 2018).

Le ragioni del divario di genere sono molteplici (Arenius & Minniti, 2005). Secondo Gupta & Turban (2012), un fattore critico potrebbero essere le immagini stereotipate che la società rimanda alle donne strettamente connesse all'ambiente domestico e alla responsabilità di crescere i figli e prendersi cura della famiglia.

Secondo i risultati dello studio di Shahzad et al., (2021) realizzato con studenti universitari del Pakistan, le studentesse hanno mostrato dei livelli più bassi di intenzioni imprenditoriali in quanto rispetto agli studenti mancavano del supporto della famiglia.

La letteratura ha dimostrato, anche, che la differenza uomo-donna risiede in alcuni tratti e caratteristiche personali, che hanno una forte influenza sull'intenzione di avviare un'impresa (Baluku et al., 2016; Li et al., 2020).

Nello specifico, gli uomini, rispetto alla controparte femminile, mostrano maggiori livelli di propensione al rischio, autoefficacia, ambizione, bisogno di successo e

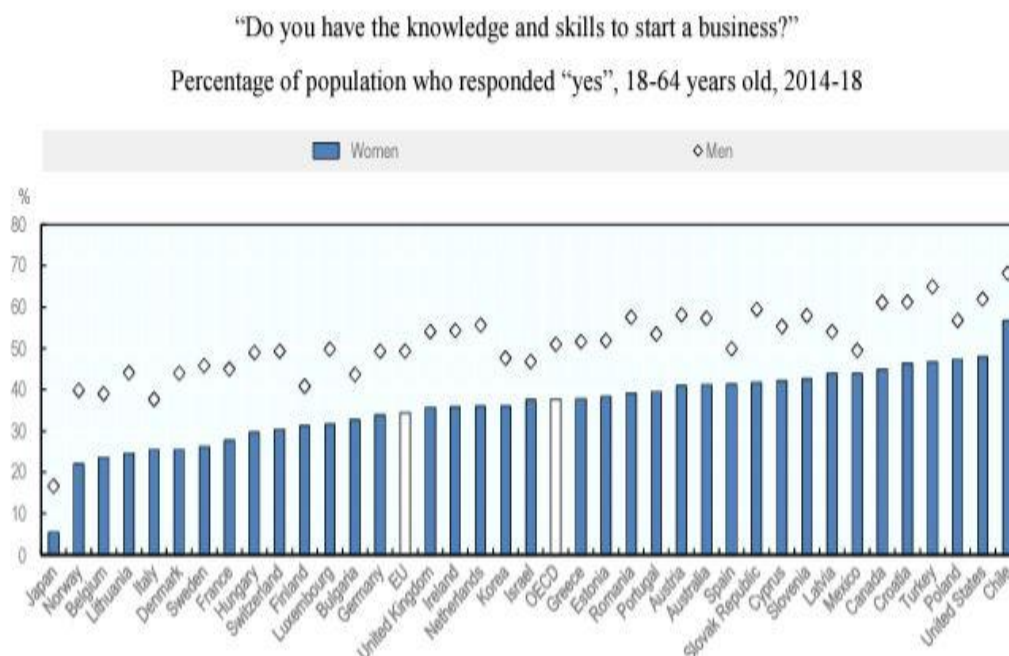
indipendenza (Ventura Fernández & Quero Gervilla, 2013; Camelo-Ordaz et al., 2016; Rico & Cabrer-Borrás, 2018).

Anche la percezione di possedere scarse capacità e conoscenze imprenditoriali è stata considerata un fattore che potrebbe ostacolare l'intenzione di creare un'impresa di successo.

Secondo il rapporto OECD/European Union (2019), circa un terzo delle donne nell'UE (34,5%), durante il periodo 2014-2018, ha dichiarato di avere le competenze e le conoscenze per avviare un'impresa, rispetto a circa la metà degli uomini (49,4%). Si tratta di un dato estremamente importante se consideriamo che circa i due terzi delle donne ritengono di non possedere le competenze per avviare con successo un'impresa.

Inoltre, come mostra la figura 4, tra gli Stati membri dell'UE, le donne si percepiscono più competenti solo in Croazia (46,4%) e Polonia (47,3%). Al contrario, le percentuali più basse in assoluto riguardano il Belgio (23,6%) e la Lituania (24,7%).

Figura 4. Livelli di competenza imprenditoriale percepita (confrnto uomo-donna)



Fonte: OECD/European Union (2019)

Rispetto ai paesi dell'Unione Europea, le donne di paesi OCSE riferiscono in misura maggiore di possedere competenze imprenditoriali (34,5% Vs 37,7%). Tuttavia, la

differenza tra i generi esiste ed é forte se consideriamo che la metà degli uomini (51%) ha riferito di avere le competenze per avviare un'impresa.

Questi dati, hanno un impatto significativo sull'intenzione imprenditoriale delle donne e sulla, conseguente, scelta di una carriera imprenditoriale: tra il 2014 e il 2018 meno del 5% delle donne nell'UE ha dichiarato di possedere un'impresa propria (OECD/European Union, 2019).

1.4.3 La soddisfazione dei bisogni psicologici di base come fattore motivante nel processo imprenditoriale

La teoria dei bisogni psicologici di base fa esplicito riferimento alla Teoria dell'Autodeterminazione (*Self Determination Theory* – SDT; Ryan & Deci, 2000) che concettualizza tre bisogni psicologici di base, vale a dire l'autonomia, la competenza e la relazione, come essenziali affinché gli individui funzionino in modo ottimale e crescano psicologicamente. Questi bisogni sono universali e sono applicabili in tutti gli aspetti della vita di un individuo (Milyavskaya & Koestner, 2011). Soddisfare queste esigenze sembra rappresentare il meccanismo motivazionale sottostante che energizza e dirige il comportamento dell'individuo (Ryan & Deci, 2000; Van de Broeck et al., 2010).

In accordo con Deci & Ryan (2012) i fattori socio-contestuali che supportano la soddisfazione dei tre bisogni psicologici fondamentali influenzano positivamente il funzionamento autonomo, la persistenza, le prestazioni efficaci, la motivazione intrinseca e il benessere dell'individuo, al contrario, i fattori socio-contestuali che ostacolano la soddisfazione di questi tre bisogni psicologici si traducono in una ridotta autonomia, una minore motivazione, prestazioni inferiori, minore persistenza e maggiore malessere.

Nello specifico, l'autonomia coinvolge gli aspetti volitivi e l'organizzazione del comportamento in attività coerenti con il senso integrato di sé. La competenza si riferisce alla percezione di essere in grado di influenzare l'ambiente in modo desiderabile. In relazione all'autonomia, gli individui hanno bisogno di sentire di poter scegliere e attuare le proprie azioni, assumendo un certo controllo sulle conseguenze. Inoltre, all'aumentare della competenza, aumenta l'autonomia. La relazione implica la sensazione di vicinanza significativa e connessione con gli altri significativi (Weinstein & Ryan, 2011). Si sostiene che tutti e tre i bisogni innati abbiano un valore intrinseco per il sé e siano essenziale per il benessere e la persistenza comportamentale (Teixeira et al., 2012).

Ad esempio, Weinstein & Ryan (2011) hanno descritto lo stato degli individui i cui bisogni sono soddisfatti o insoddisfatti dall'ambiente sociale affermando che gli individui si muovono verso stati motivazionali che sono caratterizzati come auto-volitivi o autonomi quando il loro ambiente supporta i loro bisogni. Ma se i fattori ambientali non supportano i bisogni di base, la motivazione è messa sotto pressione o controllata.

Sebbene non sembrano esserci molti studi in cui la teoria dell'autodeterminazione è stata applicata direttamente al campo dell'imprenditorialità, tuttavia ha contribuito considerevolmente nelle discipline comportamentali. Nell'istruzione, ad esempio, gli studi hanno rivelato che il concetto di soddisfazione dei bisogni psicologici svolge un ruolo fondamentale nella motivazione degli studenti all'apprendimento e al rendimento scolastico (Pelletier et al., 2002; Furrer & Skinner, 2003; Roth et al., 2007; Niemec et al., 2010).

Tra i pochi studi sull'argomento meritano di essere menzionati quelli condotti da Francoise et al., (2017) e Al-Jubari (2019) che hanno trovato una relazione positiva e significativa tra la soddisfazione dei tre bisogni psicologici di base e l'intenzione imprenditoriale, confermando il ruolo predittore di questa variabile nel processo imprenditoriale.

La rilevanza della teoria dell'autodeterminazione per il comportamento imprenditoriale e le intenzioni imprenditoriali è radicata nel concetto di motivazione. Secondo SDT, la motivazione intrinseca di un individuo deriva dalla soddisfazione dei tre bisogni psicologici umani (Ryan & Deci, 2000). Pertanto, poiché l'imprenditorialità risente della desiderabilità percepita e del controllo comportamentale percepito, la soddisfazione dei bisogni psicologici, in particolare la percezione di competenza e autonomia, aumenterebbe l'autoefficacia imprenditoriale e, di conseguenza, l'intenzione imprenditoriale (Francoise et al., 2017).

1.4.4 L'influenza esercitata dal contesto: uno sguardo sull'attuale situazione di pandemia

Secondo l'approccio della teoria socio-cognitiva (Bandura, 1986), oltre alle caratteristiche individuali, anche le condizioni del contesto possono influenzare il comportamento dell'individuo e questo aspetto deve essere preso in considerazione

nell'analisi dell'intenzione imprenditoriale, così come nella comprensione dei suoi antecedenti (Ratten, 2020).

La percezione che un individuo ha del contesto influenza significativamente, positivamente o negativamente, la formazione della sua intenzione imprenditoriale e la probabilità di avviare un'impresa (Henderson & Robertson, 2000; Taormina & Lao, 2007; Arrighetti et al., 2016). Inoltre, la percezione cognitiva ha dimostrato di essere il fattore più importante nello studio delle decisioni imprenditoriali (Krueger & Brazeal, 1994; Liñán & Jaen, 2020). Appare evidente che la percezione di un ambiente come negativo e insicuro (crisi economica, pandemia, guerre, disastri naturali), influenzerà negativamente l'intenzione di avviare nuove attività a causa di una serie di barriere quali ad esempio, accesso più difficile ai finanziamenti, una clientela potenziale più piccola e profitti inferiori (Brown et al., 2020).

In letteratura, pochi studi si sono concentrati sull'impatto che un ambiente percepito come pericoloso e rischioso può avere sull'intenzione di avviare un'impresa (Bullough et al., 2014). Tra i pochi studi che hanno analizzato l'influenza delle situazioni avverse meritano di essere menzionati quelli relativi agli scenari di guerra (Bozzoli et al., 2013; Amorós et al., 2019), terrorismo (Tavares, 2004) e disastri naturali (Tang, 2006).

Eventi come guerre, disastri naturali, attacchi terroristici hanno il potenziale di influenzare le aspettative e le percezioni di un'intera popolazione e sono generalmente associati a una diminuzione degli investimenti e del PIL, così come a livelli più elevati di incertezza (Brück et al., 2011). Ad esempio, Gaibullov & Sandler (2008) hanno suggerito che il terrorismo e altri eventi violenti potrebbero ostacolare la crescita aziendale, scoraggiando la creazione di nuove imprese.

Sebbene, la promozione dell'imprenditorialità sia considerato uno strumento vitale come risposta alle situazioni di crisi economica (Capella-Peris et al., 2019), l'evidenza empirica giunge a delle conclusioni diverse.

Ad esempio, la precedente crisi finanziaria ha avuto un effetto devastante sull'attività imprenditoriale nei paesi sviluppati (che sono stati quelli più colpiti), ma anche nelle economie emergenti (GEM, 2020). I risultati ottenuti da Hundt & Sternberg (2014) sull'impatto della crisi del 2008/2009 sull'imprenditorialità, hanno mostrato che il contesto influenza il comportamento dei potenziali imprenditori, ostacolando la nascita di nuove

imprese. Inoltre l’analisi condotta dal progetto Global Entrepreneurship Monitor (GEM, 2020), ha mostrato che il tasso di imprenditorialità nascente é diminuito notevolmente nel periodo 2008-2010 nei paesi più colpiti dalla crisi.

A tal riguardo, Devece et al., (2016) hanno condotto uno studio comparativo sulla creazione di nuove imprese in Spagna tra il 2005 e il 2007 e 2008 e 2010, osservando che il numero di nuove imprese create è sceso da 400.000 nel primo periodo a 300.000 nel secondo.

I dati effettivi sui potenziali imprenditori in Italia e Spagna (GEM, 2020) mostrano chiaramente questa tendenza (Figura 5). Come si può notare, le intenzioni imprenditoriali sono calate drasticamente durante la crisi finanziaria (ma anche negli anni immediatamente dopo).

Figura 5. Percentuale dei potenziali imprenditori durante la crisi del 2008-2009 (Italia-Spagna)



Fonte: GEM (2020)

Pertanto, esiste la possibilità che una tendenza simile si registri anche nell’attuale situazione pandemica che, creando nuovi contesti sociali ed economici in tutto il mondo (Ratten & Jones, 2021), potrebbe portare a delle sfide anche peggiori. Infatti, poiché le conseguenze economiche previste sono più gravi e concentrate in un arco temporale più breve, il calo delle iniziative imprenditoriali potrebbe essere anche maggiore.

L'attuale situazione della pandemia Covid-19 si caratterizza, oltre che per la grave crisi economica, anche per alti gradi di rischio e incertezza che portano a livelli più elevati di paura del fallimento. In particolare, la paura del fallimento è stata identificata come un ostacolo significativo alla sperimentazione di una carriera imprenditoriale (Bosma et al., 2008; Li, 2011; Morgan & Sisak, 2016).

Recenti ricerche hanno dimostrato che confrontarsi con ostacoli nella fase nascente porta all'attivazione della paura del fallimento, che a sua volta rende il potenziale imprenditore più propenso ad abbandonare il progetto di start-up (Kollman et al., 2017).

1.5 Giustificazione della Tesi Dottorale

L'analisi dell'intenzione imprenditoriale, e dei fattori che la determinano, acquista un'importanza cruciale come asse centrale del fenomeno imprenditoriale (Bird, 1988), soprattutto in considerazione della debolezza predittiva degli studi che hanno cercato di spiegare il comportamento solo attraverso l'analisi di tratti e competenze (Krueger, 2005).

Inoltre, un'ampia corrente della letteratura si è avvicinata allo studio del comportamento imprenditoriale, attraverso l'analisi delle intenzioni, considerando l'imprenditorialità come il risultato di un comportamento intenzionale e la formazione dell'intenzione, come il primo passo nel processo di creazione di un'impresa (Krueger et al., 2000; Van Gelderen et al., 2008; Krueger & Day, 2010; Moriano et al., 2012).

Questa premessa presuppone che per comprendere qualsiasi comportamento è necessario analizzare l'interesse, la volontà e l'atteggiamento dell'individuo prima di prendere la decisione finale.

In accordo con Bagozzi et al. (2003), esistono due processi che concorrono alla formazione dell'intenzione verso un determinato comportamento: l'intenzione di obiettivo e l'intenzione di attuazione (Bagozzi et al., 2003).

- **L'intenzione di obiettivo** mette in relazione gli individui con i loro obiettivi e il loro impegno nel perseguirli. Questa è la fase motivazionale dell'intenzione. Così, ad esempio, una persona sviluppa l'intenzione di intraprendere un cambiamento, sulla base delle convinzioni che ha di sé, come la percezione del rischio, le aspettative di risultati e l'autoefficacia percepita.
- **L'intenzione di attuazione**, invece, si riferisce all'azione ed è strettamente

collegata a fattori contestuali, che specificano quando, dove e come si intende raggiungere l'intenzione di obiettivo. Questa è nota come la fase volontaria dell'intenzione. In tal senso, il comportamento previsto deve essere pianificato, analizzato e mantenuto, tenendo conto anche dei fattori esterni che svolgono un ruolo cruciale in termini di promozione del comportamento specifico.

Questa distinzione è necessaria poiché alcuni modelli di analisi dell'intenzione come predittore del comportamento si sono concentrati solo sullo studio della fase motivazionale, tralasciando la fase volontaria di attuazione. Si tratta di analizzare, anche, il momento in cui l'individuo si pone un obiettivo, cercando di identificare tutti i fattori che intervengono, promuovendo o ostacolando la messa in atto del comportamento.

Di conseguenza, trasferendo queste premesse al campo dell'imprenditorialità e tenendo, anche, conto delle evidenze empiriche della letteratura, appare evidente che i modelli comportamentali basati sullo studio dell'intenzione possono essere molto utili se analizzati prendendo in considerazione le predisposizioni individuali circa la volontà di avviare un'impresa, unitamente al contesto di riferimento.

Partire dall'intenzione come antecedente del comportamento consente di considerare più direttamente gli effetti di una serie di fattori endogeni ed esogeni che condizionano la scelta di un individuo verso una carriera imprenditoriale e, dunque, il suo desiderio di convertirsi in un imprenditore.

Dal punto di vista della pratica aziendale, la comprensione delle determinanti aiuterebbe i potenziali imprenditori a comprendere come il livello di intenzione imprenditoriale sia correlato alle proprie caratteristiche personali e contestuali, consentendo loro di anticipare più facilmente il futuro.

Questa conoscenza può incoraggiare, peraltro, lo sviluppo di programmi di supporto più appropriati che non solo riconoscano, ad esempio, che le donne hanno obiettivi e motivazioni diversi, rispetto agli uomini, nella scelta di una carriera imprenditoriale, ma anche che i bisogni e le esperienze professionali di ciascuno variano in base alle caratteristiche familiari e al contesto.

Nel prossimo capitolo verranno discussi, in dettaglio, gli obiettivi e le ipotesi della presente Tesi Dottorale.

Capitolo 2

Objetivos e Hipotésis

2.1 Objetivos Generales

1. Investigar, mediante revisiones sistemáticas de la literatura, la influencia de algunas variables en la intención emprendedora.
2. Validar la Escala de Necesidades Psicológicas Básicas (BPNSF) en el contexto español.
3. Analizar la influencia de variables psicológicas y contextuales sobre la intención emprendedora de un grupo de estudiantes universitarios.

2.1.1 Objetivos Específicos

1. Evaluar la influencia del rol de la familia en la intención emprendedora.
2. Analizar la diferencia entre hombres y mujeres en las intenciones emprendedoras.
3. Identificar las variables consideradas antecedentes en la intención emprendedora social.
4. Evaluar el tema de género en la intención emprendedora social.
5. Adaptar y validar la escala de necesidades psicológicas básicas (BPNSF) en el contexto español en una muestra de estudiantes universitarios, evaluando sus propiedades psicométricas y la invariancia del modelo de medida en relación al género y al tipo de estudios.
6. Analizar la influencia de las variables psicológicas (satisfacción de necesidades psicológicas básicas, proactividad y optimismo) y contextuales (con referencia específica a la percepción de la pandemia Covid-19) sobre la intención emprendedora de los estudiantes latinoamericanos, así como analizar los efectos mediadores de la proactividad y el optimismo.

2.2 Hipótesis

H1. El apoyo percibido por la familia influye positivamente en la intención emprendedora de sus miembros.

H2. Las mujeres, a diferencia de los hombres, tienen niveles más bajos de intención emprendedora.

H3. Diversas variables psicológicas, sociales y demográficas se identifican como antecedentes de la intención emprendedora social.

H4. La diferencia entre hombres y mujeres que caracteriza la literatura sobre la intención emprendedora comercial, se reduce considerablemente con referencia a la intención emprendedora social.

H5. La escala BPNSF es adecuada para evaluar las necesidades psicológicas básicas en el contexto español, independientemente del género y tipo de estudio.

H6. La percepción de la pandemia de Covid-19 se asocia negativamente con las intenciones emprendedoras (H6a) y la satisfacción de las necesidades psicológicas básicas se asocia positivamente con las intenciones emprendedoras (H6b) de los estudiantes universitarios.

H7. La proactividad se relaciona positivamente con las intenciones emprendedoras de los estudiantes.

H8. El optimismo se relaciona positivamente con las intenciones emprendedoras de los estudiantes.

H9. La relación entre la percepción de la pandemia de Covid-19 y las intenciones empresariales está mediada por la proactividad (H9a) y el optimismo (H9b).

H10. La relación entre la satisfacción de las necesidades psicológicas y las intenciones emprendedoras está mediada por la proactividad (H10a) y el optimismo (H10b).

De manera sintetizada, tenemos cinco publicaciones científicas que abordan un total de tres objetivos generales, seis objetivos específicos y diez hipótesis:

➤ **Publicación 1.** *Entrepreneurship and Family Role: A Systematic Review of a*

Growing Research (Cardella, Hernández-Sánchez y Sánchez-García, 2020).
Objetivo general 1, específico 1, hipótesis 1.

- **Publicación 2.** *Women Entrepreneurship: A Systematic Review to Outline the Boundaries of Scientific Literature* (Cardella, Hernández-Sánchez y Sánchez-García, 2020). Objetivo general 1, específico 2, hipótesis 2.
- **Publicación 3.** *Social Entrepreneurship Research: Intellectual Structures and Future Perspectives* (Cardella, Hernández-Sánchez, Monteiro y Sánchez-García, 2021). Objetivo general 1, específicos 3 y 4, hipótesis 3 y 4.
- **Publicación 4.** *Basic Psychological Needs as a Motivational Competence: Examining Validity and Measurement Invariance of Spanish BPNSF Scale* (Cardella, Hernández-Sánchez y Sánchez-García, 2020). Objetivo general 2, específico 5, hipótesis 5.
- **Publicación 5.** *Psychological Factors that Lessen the Impact of COVID-19 on the Self-Employment Intention of Business Administration and Economics' Students from Latin America* (Hernández-Sánchez, Cardella y Sánchez-García, 2020). Objetivo general 3, específico 6, hipótesis 6, 7, 8, 9 y 10.

Capítulo 3

Aspectos Metodológicos

Los procedimientos metodológicos que se han utilizado en este trabajo se pueden consultar en detalle en los artículos que forman parte de este compendio de Tesis Doctoral. Es importante destacar que en cada publicación se utilizó una metodología específica, en línea con los objetivos del estudio.

3.1 Metodología de las revisiones sistemáticas (Publicación I, II, III)

Las tres primeras publicaciones que componen este compendio de Tesis Doctoral son revisiones sistemáticas de la literatura, con el objetivo de analizar el estado del arte del rol de la familia en la intención emprendedora (publicación I), la relación entre emprendimiento y mujeres (publicación II) y la importancia del emprendimiento social como herramienta para atenuar la diferencia de género (publicación III). Por este motivo, se eligieron 3 bases de datos diferentes ampliamente reconocidas en la literatura, es decir, Scopus (publicación I, II y III), Web of Science (publicación I y II) y Business Source (publicación I).

La elección de estas bases de datos se hizo porque se consideran las más poderosas de la literatura; específicamente, se utilizó Web of Science porque es la base de datos más antigua y brinda una cobertura sólida en la investigación internacional (Li et al., 2018), garantizando la más alta calidad; Scopus, por su parte, con 27 millones de resúmenes, es actualmente la mayor base de datos de literatura científica (Burnham, 2006), finalmente Business Source como tercera base de datos, ya que ofrece un repertorio específico de literatura científica emprendedora.

Para cada revisión sistemática se identificaron diferentes términos de búsqueda (estrechamente relacionados con el objeto de estudio de cada revisión), utilizando el conector booleano “AND”. Además, se consideraron factores de inclusión/exclusión específicos en función de los objetivos de cada revisión sistemática. La Tabla 2 presenta un resumen explicativo de las características de cada publicación.

Para las tres revisiones, los resúmenes de los artículos fueron leídos por dos investigadores de forma independiente, y cuando no fue posible aislar los factores de inclusión/exclusión de los resúmenes, se leyó el artículo completo.

Para reducir el componente subjetivo y los errores de atribución y para una mayor transparencia de los resultados y garantizar la replicabilidad del estudio, se siguieron las

recomendaciones del método PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyzes) para revisiones sistemáticas (Liberati et al., 2009; Moher et al., 2009; Urrútia y Bonfill, 2010).

Tabla 2. Características de los estudios sistemáticos

Términos de búsqueda			
Publicación I	"famil* role", "famil* support", "parent* role", "parent* support" AND "entrepren*"		
Publicación II	"Entrepren*" AND "Women,"		
Publicación III	"Social Entrepren*"		
Mencionados en			
Scopus	Título, resumen o palabras clave		
Web of Science	Título o tema		
Periodo de tiempo			
Publicación I	1989-2019		
Publicación II	1950-2019		
Publicación III	1978-2020		
Idioma	Inglés (Publicación I, II, III) o español (Publicación I)		
Tipo de documento	Artículos revisados por pares		
Base de datos primaria	Scopus (Publicación I, II, III) y Web of Science (Publicación I, II)		
Base de datos secundaria (control de calidad)	Business Source (Publicación I)		
	Publicación I	Publicación II	Publicación III
Documentos Iniciales	266	4.162	4.752
Artículos finales analizados	92	2.848	1.425

Para el análisis de datos, inicialmente se realizó un análisis cuantitativo para describir el panorama de la literatura específica en términos de años de publicación, productividad de los autores, países y revistas más influyentes.

Además, a través del software VOSviewer versión 1.6.10 (Van Eck y Waltman, 2014) se realizaron diversos análisis en línea con los objetivos de cada revisión sistemática. VOSviewer es una herramienta de análisis bibliométrico que se enfoca en la visualización de redes bibliométricas basados en distancia (mapeo científico) y que permite, a través de la representación gráfica, la identificación y clasificación del cuerpo de conocimiento en

una matriz estratégica asociada basada en similitudes (VOS significa *Visualization Of Similarities*). Estas redes pueden ser creadas en relación con los autores, revistas científicas, países o palabras claves. Los datos pueden ser analizados por coautoría, co-ocurrencia, citación o cocitación.

En concreto, se utilizaron el análisis de co-ocurrencia de las palabras clave (análisis de clúster) para analizar las líneas temáticas de los campos científicos, y el análisis de la citación y co-citación para identificar los artículos y autores con el mayor impacto, así como la estructura intelectual de una base de conocimiento (Tabla 3).

Tabla 3. Tipo de análisis utilizado con el software VOSviewer

	Tipo de Análisis	Justificación del tipo de análisis utilizado
Publicación I	Análisis de co-ocurrencia de palabras clave	Para conocer las diversas líneas de investigación de la literatura sobre el rol de la familia en el emprendimiento (<i>research front</i>)
	Análisis de citación (revistas)	Para identificar las revistas con mayor impacto
Publicación II	Análisis de co-ocurrencia de palabras clave (cluster análisis y red de superposición)	Para analizar los temas más desarrollados y emergentes de la literatura sobre emprendimiento y mujer; La red de superposición se utilizó para obtener información sobre el año en el que un tema de investigación específico registró la mayor actividad científica.
	Análisis de citación (autores, revistas y artículos)	Para identificar las revistas, los autores y los artículos con mayor impacto
Publicación III	Análisis de co-citación (autores)	Para identificar las "escuelas de pensamiento" (intellectual structure) más prevalentes en la literatura sobre el emprendimiento social.
	Análisis de co-ocurrencia de palabras clave (red de superposición)	Resaltar los temas de interés actual entre los académicos del sector y permitir comparaciones entre diferentes años.

Análisis de co-ocurrencia de palabras clave. El análisis de la co-ocurrencia de palabras clave se basa en el supuesto de que si dos o más artículos muestran las mismas

palabras clave (contenidas en el título, resumen o palabras clave del autor) significa que comparten cierta similitud en los temas de investigación. Cada palabra clave está representada por un nodo: el tamaño del nodo depende del peso de la palabra clave. Cuanto mayor sea el peso, más veces aparecerá la palabra clave y, por lo tanto, más grande será el nodo; la línea entre los nodos indica la relación entre las palabras clave. El grosor de la línea de conexión indica la fuerza de la co-ocurrencia entre las dos palabras clave (índice de similaridad o Fuerza de Asociación) (Van Eck y Walkman, 2014), lo que significa que cuanto más gruesa es la línea de conexión, más veces ocurren las dos palabras clave.

Un conjunto de nodos forma un grupo (clúster) que representa las diferentes líneas de investigación. La técnica *VOS* permite ejecutar diferentes algoritmos de *clustering* para posicionar y clasificar las palabras clave en grupos similares, equiparables a grupos temáticos.

En las revisiones sistemáticas que forman parte de esta tesis se utilizaron dos modos de visualización en el análisis de co-ocurrencia: la vista de red y la vista de superposición. En el primero, cada elemento (nodo) está representado por un color diferente que depende del grupo (clúster) en el que está clasificado: elementos del mismo color comparten la misma línea de investigación. La forma en que se presenta la red de superposición es muy similar al primer caso, sin embargo, el color del elemento (nodo) cambia teniendo en cuenta del año en el que hubo más actividad científica: los elementos del mismo color fueron analizados por los autores en el mismo año. Es una visualización que permite comprender cómo, dentro de un tema de investigación específico (papel de la familia, emprendimiento y mujer o emprendimiento social), el interés de los investigadores ha cambiado a lo largo de los años.

Análisis de citación y co-citación. Es importante subrayar que, si bien el análisis de citación examina el impacto directo, es decir, el número de veces que cada documento ha sido citado por otros documentos que forman parte de la base de datos, el análisis de co-citación examina el número de veces que dos autores y/o dos artículos fueron citados por otros académicos que pueden no estar incluidos en las bases de datos. Cuando dos autores o artículos son "co-citados" por otros académicos, sugiere que comparten algún tipo de similitud intelectual.

El análisis de co-citación tiene varias fortalezas importantes. De hecho, debido a que el análisis de co-citación examina las "referencias co-citadas" en los artículos de revisión,

captura una literatura mucho más amplia (en comparación con el análisis de citación), en consecuencia, con el análisis de co-citación surgen académicos influyentes en campos relacionados que permiten tener una visión más amplia de la base de conocimientos de un objeto de investigación. En consecuencia, dado que el análisis de la co-citación es capaz de identificar similitudes en la producción científica entre diferentes autores, se ha utilizado en la literatura para analizar la "estructura intelectual" dominante dentro de una disciplina.

3.2 Publicación IV

El objetivo de este estudio fue analizar y validar las propiedades psicométricas de la escala BPNSF (*Basic Psychological Need Satisfaction and Frustration Scale*) desarrollada por Chen et al. (2015), con una muestra de 1.075 universitarios españoles (527 hombres y 548 mujeres), con edades comprendidas entre los 17 y los 31 años ($M= 20,35$; $D.E.= 1.878$) y provenientes de diferentes facultades: ciencias sociales ($n= 446$), ciencias de la salud ($n= 377$) y humanidades ($n= 252$).

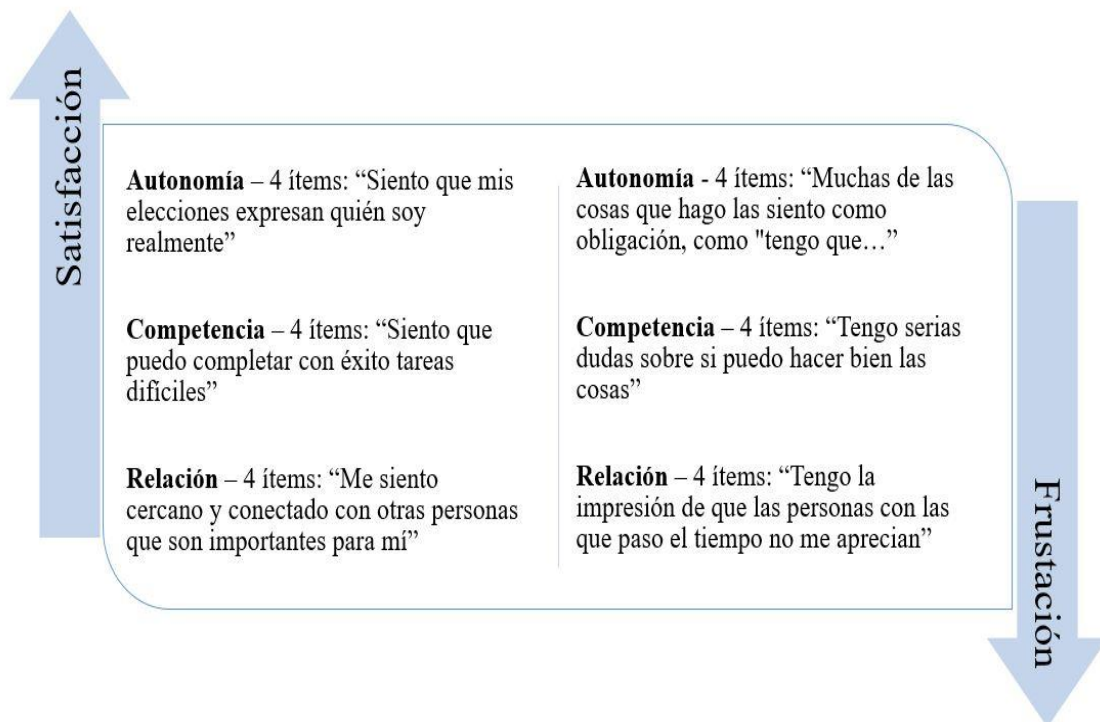
La selección se realizó sobre la base de un muestreo completamente aleatorio y los estudiantes participaron de forma voluntaria y anónima en el desarrollo de la investigación. Junto con la escala BPNSFS, se pidió a los estudiantes que indicaran cierta información para la construcción de variables sociodemográficas de nuestro interés (por ejemplo, edad, sexo, tipo de estudios). La solicitud se realizó de manera colectiva al finalizar el primer semestre del período académico 2019/2020. Los estudiantes completaron el cuestionario en aproximadamente 20 minutos y no recibieron crédito por participar en el estudio.

Con el objetivo de poder llevar a cabo la validación de la escala al contexto español, se utilizó la estrategia de traducción inversa (Hambleton, 1996). Este proceso consiste en que la escala original fue traducida al español por dos traductores bilingües y posteriormente otro grupo lo tradujo a su idioma original. La bondad de la traducción se juzgó en función del grado de coincidencia con la versión original. La versión obtenida se distribuyó a una muestra de 50 estudiantes universitarios que no reportaron problemas con el significado y claridad de los ítems, de tal modo que se garantizara que los ítems obtenidos estuvieran bien diseñados para medir el constructo que quería medirse, sin perder su significado. La escala original se recuperó del sitio web de la teoría de la autodeterminación (<https://selfdeterminationtheory.org>).

La escala consta de 24 ítems agrupados en seis factores, que representan una estructura multidimensional de las necesidades psicológicas básicas. En concreto, tres de estos factores analizan la satisfacción de las necesidades y los otros tres evalúan el nivel de frustración para cada necesidad psicológica básica.

Los 24 ítems se puntuaron utilizando una escala tipo Likert de cinco puntos, que van desde 1 (completamente falso) a 5 (completamente verdadero). La figura 6 muestra la estructura multidimensional de las necesidades psicológicas básicas, para cada necesidad se da un ejemplo de un ítem.

Figura 6. Estructura multidimensional y ejemplos de ítems de la versión española de la escala BPNSF (Chen et al., 2015)



En concreto, se realizó un análisis factorial confirmatorio realizado con el software JASP 0.12.2 utilizando el módulo SEM (paquete R de Rosseel lavaan) y el estimador de mínimos cuadrados ponderados diagonales (*Diagonal Weighted Least Squares* - DWLS). Esta elección se hizo porque, en este estudio, los datos fueron recolectados usando una escala Likert y, por lo tanto, la hipótesis de normalidad metodológicamente no puede ser satisfecha. Por lo tanto, los datos se ordenaron por categoría. El estimador DWLS basado en la matriz de correlación policórica evita estimaciones de parámetros sesgadas que podría aparecer con estimaciones de máxima verosimilitud y se considera una opción más

confiable con variables categóricas ordenadas (Xia e Yang, 2019). Además, la consistencia interna de las dos subescalas se evaluó a través de dos índices: alfa de Cronbach y omega de Mc Donald (Dunn et al., 2013).

Para verificar si el modelo propuesto se ajusta a los datos y para respaldar la validez del modelo propuesto de seis factores, se utilizaron los siguientes índices de ajuste: la relación entre el valor de chi-cuadrado y el grado de libertad (ajuste aceptable: < 3), CFI (*Comparative Fit Index*), TLI (*Tucker-Lewis Index*) y GFI (*Goodness of Fit Index*) (ajuste aceptable: $\geq 0,95$), también se incluyó, como índice de bondad de ajuste del modelo, el índice RMSEA (*the Root Mean Square Error of Approximation*), que debe ser menor que 0,05 o asumir un valor máximo de 0,08 (Schermelleh-Engel et al., 2003).

En segundo lugar, se llevó a cabo un análisis multigrupo (*multiple-group confirmatory factor analysis* - MGCFA) para analizar la invarianza de medida respecto al género (n= 527 hombres y n= 548 mujeres) y al tipo de estudios (n= 446 ciencias sociales, n= 377 ciencias de la salud y n= 252 humanidades).

La evaluación de la invarianza de medición se realizó en cuatro pasos; modelo 1: invarianza configural (*configural invariance*) relacionado con una estructura factorial sin restricciones; model 2: invarianza métrica (*metric invariance*) donde se imponen restricciones en las cargas factoriales; modelo 3: invarianza fuerte (*scalar invariance*) donde las cargas factoriales e interceptos son idénticos e modelo 3: invarianza estricta (*strict invariance*) que asume igualdad en cargas factoriales, interceptos, covarianza y varianza del error (Byrne, 2008).

Clásicamente, la invarianza de medición se evalúa utilizando un único criterio, es decir, la variación de χ^2 para modelos anidados. Sin embargo, algunos investigadores han dejado de centrarse en el ajuste absoluto en términos de χ^2 a un enfoque en índices de ajuste alternativos porque χ^2 es excesivamente sensible a pequeñas desviaciones en muestras grandes (Chen, 2007). En este estudio, se utilizó un criterio de variación de $-0,01$ en CFI, junto con cambios en RMSEA de 0,015 y SRMR de 0,030 (para invarianza métrica) o 0,010 (para invarianza fuerte o estricta) (Cheung y Rensvold, 2002).

3.3 Publicación V

Este estudio empírico se realizó con el objetivo de analizar la influencia de factores psicológicos (satisfacción de necesidades psicológicas básicas, proactividad y optimismo) y factores contextuales (la percepción de la pandemia Covid-19) sobre la intención emprendedora. Además, en línea con la literatura, se analizaron los efectos mediadores de la proactividad y el optimismo.

El estudio se realizó con 934 estudiantes universitarios de países latinoamericanos (45,6% de Ecuador, 45,3% de Panamá y 9% de otros países), de los cuales el 67,5% mujeres y el 32,5% hombres. La mayoría de los estudiantes estaban matriculados en la Facultad de Ciencias Empresariales y Administración (55,4%) y la Facultad de Economía (23,7%). El 25% restante estaba matriculado en la Facultad de Ciencias Sociales y de la Salud. El rango de edad fue de 18 a 69 años ($M= 23,6$; $DE= 5,94$).

Los cuestionarios se administraron online, la participación fue voluntaria y los datos fueron tratados de forma anónima siguiendo los criterios éticos establecidos por la Asociación Americana de Psicología (*American Psychological Association*, APA; Sales y Folkman, 2000).

Las respuestas a todas las escalas (tabala 4) siguieron un formato Likert de 5 puntos que varió desde 1- muy en desacuerdo hasta 5 muy de acuerdo (la versión completa de las herramientas utilizadas para la recopilación de los datos se puede encontrar en la sección del apéndice).

Tabla 4. Herramientas utilizadas para la recopilación de los datos

Variables	Descripción de las escalas
<i>Variables Independientes</i>	
Percepción de la pandemia de Covid-19 (Cardella et al., 2021; <i>en prensa</i>) ($\alpha= 0.884$)	Es una escala que se ha construido ad hoc, recientemente se ha aceptado la publicación de su validación, sobre una muestra de estudiantes universitarios españoles, por la revista científica PLoS ONE. Está compuesta por 14 ítems: 8 ítems miden el impacto del Covid-19 en el futuro económico del país y los otros 6 ítems miden el impacto de la pandemia en el ámbito personal. En este estudio, la subescala del país no mostró una buena consistencia interna, probablemente porque muchos de los estudiantes entrevistados viven lejos de sus países de origen. Por este motivo se utilizó la subescala personal. Un ejemplo de un ítem es: "Covid-19 reducirá mis oportunidades laborales".

Satisfacción de las necesidades psicológicas básicas

(Chen et al., 2015)

 $(\alpha = 0.797)$

Se utilizó la validación española presentada en el estudio anterior (publicación IV). La escala consta de 24 ítems. Para este estudio se utilizaron los 12 ítems correspondientes a la escala de satisfacción. Ejemplo de ítem: "Me siento libre de elegir las cosas que hago".

Variable Dependiente**Intención Emprendedora**

(COE - Sánchez-García, 2010)

 $(\alpha = 0.926)$

Se midió con la escala de seis ítems del Cuestionario de Orientación Emprendedora (COE). Un ejemplo de ítem: "Haré todo lo posible para poner en marcha y desarrollar mi empresa".

Variables Mediadoras**Proactividad** (COE - Sánchez-García, 2010) $(\alpha = 0.874)$

Se utilizó la escala correspondiente del Cuestionario de Orientación Emprendedora (COE). Esta subescala está integrada por 10 ítems y miden la tendencia de los encuestados a exhibir un comportamiento proactivo. Un ejemplo de ítem es: "Busco constantemente nuevas formas de mejorar mi vida".

Optimismo (PROE - Sánchez-García, 2016) $(\alpha = 0.858)$

Se utilizó la escala de optimismo del cuestionario PROE. La escala consta de 9 ítems y mide la tendencia de un individuo a tener expectativas positivas sobre el futuro. Un ejemplo de ítem: "Veo los aspectos positivos de las cosas".

Los datos se analizaron utilizando los programas estadísticos SPSS versión 23 y Amos versión 23.

Primero, se realizaron análisis descriptivos para medir la media y la desviación estándar de todas las variables. Las correlaciones entre variables se evaluaron mediante el método de Pearson y también se realizaron análisis de regresión jerárquica para analizar el impacto de las variables en la intención emprendedora.

Para examinar los efectos indirectos de la percepción de la pandemia Covid-19 y la satisfacción de necesidades psicológicas básicas sobre la intención emprendedora a través de la mediación de la proactividad y el optimismo (modelo de mediación múltiple paralelo), se utilizó el método bootstrap, a través de la macro/interfaz Process para SPSS (Hayes, 2013). El principio clave detrás del procedimiento bootstrap es que permite al investigador simular submuestras repetidas de una base de datos original, lo que permite evaluar la estabilidad de las estimaciones de los parámetros con un mayor grado de precisión. El método Bootstrap evalúa el efecto indirecto en cada conjunto de datos y establece los intervalos de confianza para cada efecto indirecto (Preacher & Hayes, 2008).

Además, se calcularon los siguientes índices para evaluar el ajuste del modelo: el CFI (*Comparative Fit Index*) y el IFI (*Incremental Fit Index*), ambos con valores adecuados superiores a 0,90 y RMSEA (*the Root Mean Square Error of Approximation*), que debe ser inferior a 0,08 (Byrne, 2010).

Capítulo 4

Compendio de Publicaciones

A continuación, se incluye una copia completa de las publicaciones originales que conforman la Tesis Doctoral. Se presenta también un resumen ejecutivo en español de cada publicación científica.

El formato de los artículos y de las referencias bibliográficas respetan las normas de la revista científica en la que fue publicado.

4.1 Publicación I: El emprendimiento y el papel de la familia: una revisión sistemática de una investigación en crecimiento



Cardella, G. M., Hernández Sánchez, R. B., & Sánchez García, J. C. (2020). Entrepreneurship and Family Role: A Systematic Review of a Growing Research. *Frontiers in Psychology, 10*, 2939.
<https://doi.org/10.3389/fpsyg.2019.02939>

Resumen

En los últimos años se ha incrementado significativamente la investigación sobre el papel de la familia y el emprendimiento, consolidándose como un tema de estudio válido y actual. Este artículo presenta un análisis sistemático de la investigación académica, aplicando indicadores bibliométricos y análisis de co-ocurrencia de palabras clave (análisis de clúster) para definir el estado de la investigación sobre la relación entre el papel de la familia y el emprendimiento.

Los datos fueron recogidos utilizando tres bases de datos bien aceptadas por la comunidad científica: Scopus, Web of Science, Business Source y aplicando los términos de búsqueda: TITLE-ABS-KEY ("famil* role" OR "famil* support" OR "parent* role" OR "parent* support" AND "entrepren*") para identificar todas las publicaciones que contenían los términos en el título, palabras clave o resumen. Después de eliminar todos los artículos duplicados, se identificaron un total de 192 documentos en un período de tiempo entre 1989 y 2019. Se leyeron los 192 resúmenes para garantizar que el artículo abordara el tema de la investigación. Cuando surgió una duda, se leyó todo el documento.

Los criterios propuestos para la inclusión de los documentos fueron: (i) artículos publicados en revista revisada por pares, como fuente principal de conocimiento científico (Podsakoff et al., 2005), (ii) artículos escritos en inglés o español, (iii) y que contengan una

relación directa entre el rol de la familia (padres) y emprendimiento. Al final, se seleccionaron y analizaron un total de 92 artículos.

Los resultados de los indicadores bibliométricos mostraron que este es un campo de estudio relativamente reciente y que presenta un carácter multidisciplinar en que, si bien es un tema de investigación relacionado principalmente con el sector empresarial, se destacan algunos estudios importantes relacionados con el campo de las ciencias sociales, ciencias del comportamiento e ingeniería.

Además, los resultados del análisis bibliométrico han permitido afirmar que es un campo de estudio con límites mal definidos que carece de sistematización, probablemente por su carácter multidisciplinario. De hecho, el 90,9% de los investigadores contribuyeron con un solo trabajo, este resultado adquirió mayor intensidad cuando se verificó que solo 8 autores participaron con dos o más artículos en la literatura.

El análisis de co-ocurrencia de palabras clave mostró cinco áreas principales de investigación de la literatura (figura 6 del artículo):

1. El primer cluster **“dimensión cultural y problema de género”** de color rojo, asocia las siguientes palabras claves: cultura, mujeres, emprendimiento femenino, emprendimiento, género, capital social y estudiante. Se encuentran relacionados a este clúster el 21,8% de la co-ocurrencia de las palabras clave.
2. El segundo clúster, en color verde, **“empresa familiar y sucesiones”**, se encuentra ubicado del lado izquierdo y un poco alejado de grupo principal, lo que refleja la poca fuerza de la relación con el resto de los elementos (Van-Eck y Waltman, 2010). Se asocia las siguientes palabras claves: Empresa familiar, sucesión, desarrollo económico y Arabia Saudita. Se encuentran relacionados a este clúster el 12,1% de la co-ocurrencia de las palabras claves bajo estudio.
3. El tercer clúster **“modelos de rol de los padres e intención emprendedora”** (en color azul) asocia las siguientes palabras clave: intención emprendedora, educación emprendedora, modelos de rol parental y autoeficacia. El 22,6% de las palabras clave son relacionados con este clúster que enfatiza la importancia de la educación emprendedora, de los modelos de rol y autoeficacia para el desarrollo de la intención emprendedora.
4. El cuarto clúster **“emprendimiento y autoempleo”**, en color amarillo, asocia

las siguientes palabras claves: emprendimiento, autoempleo, emprendedores y personalidades. Se encuentran relacionados a este clúster el 25% de la co-ocurrencia de las palabras claves bajo estudio.

5. Finalmente, el último clúster, en color morado, **“apoyo familiar y mujeres emprendedoras”**, se encuentra asociado a las siguientes palabras claves: apoyo familiar, mujeres emprendedoras e India. Se encuentran relacionados a este clúster el 18,5% de la co-ocurrencia de las palabras claves bajo estudio.

En concreto, la línea de investigación que más se ha analizado en la literatura es relativa al papel de la familia en el autoempleo, este clúster es también el que ha obtenido un mayor número de relaciones con otros clústeres, en particular con el apoyo de la familia y la exposición a modelos de rol parentales, enfatizando una vez más la importancia que tiene la familia en el proceso emprendedor, especialmente para las mujeres, en términos de un ejemplo positivo en la elección del trabajo autónomo, haciendo del emprendimiento no solo una opción de carrera deseable, sino también realizable.

Por el contrario, el clúster con menor porcentaje de co-ocurrencias de palabras clave está relacionado con la empresa familiar y el problema de la sucesión.

De hecho, a pesar de la indudable importancia que tiene la sucesión familiar desde el punto de vista económico y social, estudios internacionales han demostrado que la nueva generación tiene poco interés e intención de trabajar en los negocios de sus padres (Zellweger, 2017).

Una posible explicación podría ser que los sucesores tienden a confiar en sus propias habilidades y conocimientos, pero parecen pesimistas sobre la sucesión porque se sienten menos autónomos e incapaces de cumplir con las expectativas de los padres.

De este estudio se pueden extraer dos conclusiones fundamentales: por un lado, la importancia del apoyo parental, tanto en la fase de idealización como en la fase de consolidación de la empresa; por otro lado, la necesidad de adoptar un enfoque sistémico que considere no solo el tipo de comportamiento de los padres en el apoyo a sus hijos, sino también la percepción que tienen los “empresarios potenciales” del tipo de apoyo recibido.

Palabras Clave: Emprendedor; Apoyo familiar; Papel de los padres; Revisión de la literatura; Modelos de rol.



Entrepreneurship and Family Role: A Systematic Review of a Growing Research

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OPEN ACCESS

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Specialty section:

This article was submitted to
Organizational Psychology,
a section of the journal
Frontiers in Psychology

Received: 19 July 2019

Accepted: 11 December 2019

Published: 10 January 2020

Citation:

Cardella GM, Hernández-Sánchez BR
and Sánchez García JC (2020)
Entrepreneurship and Family Role: A
Systematic Review of a Growing
Research. *Front. Psychol.* 10:2939.
doi: 10.3389/fpsyg.2019.02939

In recent years, research on the family role and entrepreneurship has increased noticeably, consolidating itself as a valid and current subject of study. This paper presents a systematic analysis of academic research, applying bibliometric indicators, and cluster analysis, which define the state of research about the relationship between family role and entrepreneurship. For this purpose, using three well-accepted databases among the research community: Scopus, Web of Science, Business Source, a total of 92 articles were selected and analyzed, published between 1989 and 2019 (until March). A cluster analysis shows five main areas of literature development: (1) cultural dimension and gender issue; (2) family business and succession; (3) parental role models and entrepreneurial intentions; (4) entrepreneurship and self-employment; (5) family support and women entrepreneurs. Findings also show how this is a relatively recent field of study, with a multidisciplinary character.

Keywords: entrepreneur, family support, parent role, literature review, role models

INTRODUCTION

Entrepreneurship is a determining factor of economic development (Thurik, 2009; Hessels and van Stel, 2011; Audretsch et al., 2015), social and structural change (Acs et al., 1999; North, 2005). Entrepreneurship not only contributes to the economic and social growth of a nation, but also stimulates the development of knowledge (Shane, 2000), technological change (Acs and Varga, 2005), competitiveness and innovation (Parker, 2009; Blanco-González et al., 2015). In fact, the European community has promoted numerous actions aimed to improve and develop the entrepreneurial attitude of European citizens toward Business venture, focusing on aspects that are essential for creating a corporate identity. However, the levels of entrepreneurial activity in some European countries are still low. According to the latest international study of Global Entrepreneurship Monitor (GEM), published in 2018, Europe has the lowest TEA (Total Entrepreneurial Activity) of all regions in all age studied. This is a concerning result, especially in its current crisis period.

Entrepreneurial activity is not just about discovering new ideas and possibilities (Shane and Venkataraman, 2000), but also intentional planning, developed through the cognitive processing of internal and external factors (Del Giudice et al., 2014). Intention is a cognitive process that precedes the effective involvement of the individual in any type of activity (Liñán and Chen, 2009), and in particular, entrepreneurial intention is closely linked to business world (Moriano et al., 2012) and has become a rapidly evolving research sector in the international scene (Liñán and Fayolle, 2015).

Currently, in the literature there are two different theoretical approaches which attempt to clarify why some individuals are more inclined toward an entrepreneurial career when compared to others: the first analyzes personality traits (Zhao and Seibert, 2006; Rauch and Frese, 2007; Leutner et al., 2014; DeNisi, 2015), the second focuses on environmental and behavioral factors (Peterson, 1980; Aldrich, 1990; Baum et al., 2001). Specifically, researchers study the importance of some individual traits as factors predetermining to perform entrepreneurial activities such as high levels of self-efficacy (Krueger et al., 2000; Zhao et al., 2005; Lee et al., 2011; Rasul et al., 2017), risk propensity (Schwartz and Whistler, 2009; Tumasjan and Braun, 2012; Yurtkoru et al., 2014), tolerance to ambiguity, and uncertainty (Hmieleski and Corbett, 2006; Schwartz and Whistler, 2009; Arrighetti et al., 2012), metacognitive abilities and individual abilities (Kor et al., 2007; Dickson et al., 2008; Liñán et al., 2011), locus of control (Battistelli, 2001; Gordini, 2013), as well as creativity (Hamidi et al., 2008; Smith et al., 2016; Biraglia and Kadile, 2017); the environmental and behavioral focuses refers to the Social Learning Theory (Bandura, 1986), according to which, individuals learn certain skills from other people, which act as models. Specifically, the term “role model” emphasizes the individual’s tendency to identify with other people occupying important social and the consequent cognitive interdependence of skills and behavior patterns (Gibson, 2004).

In this scenario, the role of the family in guiding young people toward choosing an autonomous/entrepreneurial job becomes important (Fraccaroli and Vitali, 2001; Odoardi, 2003); the social network is an important intangible resource for the development of their business activities (Presutti et al., 2011); in particular, the perception of the family support influences, in the university students, the choice of career in general (Henderson and Robertson, 2000) and specifically the business one (Türker et al., 2005; Taormina and Lao, 2007; Zellweger et al., 2011; Laspita et al., 2012).

This evidence is not enough proof. For example, some researchers have not found a statistically significant relationship between entrepreneurial parenting role models and children’s decision to choose an entrepreneurial career (Rodríguez et al., 1999; Kim et al., 2006), other studies, instead, have found a negative effect, especially in situations of failure of the family business (Scherer et al., 1989; Mungai and Velamuri, 2011).

Taking into consideration the ideas exposed above, we conducted this systematic review to analyze the relationship between the role of the family and the entrepreneurial process. Specifically, we aim to answer the following questions:

1. What is the temporal development of research on the relationship of the role model in entrepreneurship?
2. Who are the most productive authors, countries and journals?
3. What are the thematic areas that have been most studied by researchers?

Furthermore, to reduce the risk of bias to a minimum, we applied a series of bibliometric indicators. Bibliometric indicators are defined as a rigorous set of statistical and mathematics methods to be applied to documents and other patterns of knowledge (Pritchard, 1969). It is a method widely used

in the literature as it provides an overview of academic research, through the identification of the main trends in a given field of study (Martínez-López et al., 2018). Many bibliometric revisions regarding entrepreneurship have been conducted (Cabeza-Ramírez et al., 2017; Baier-Fuentes et al., 2019). However, specifically to the relationship between family role and entrepreneurship, our research did not generate any results. The only existing revisions take into consideration the family, understood as a family business (López-Fernández et al., 2015).

In the following section we explain the methodology for systematic analysis, and we will report the main results. In the final part, we present the conclusions that can be drawn from our analysis, its limitations, as well as reflections for future developments.

MATERIALS AND METHODS

In this article, we review the literature on the family role in entrepreneurial capacity using the systematic analysis method as “explicit, rigorous and transparent methodology” (Greenhalgh et al., 2004, p. 582). In this sense, we collected the publications until March 2019 and extracted the most relevant results, through the application of statistical methods.

To reduce the risk of bias, during the selection phase of the articles, we used a mechanism established in the literature, the PRISMA method (Liberati et al., 2009; Urrútia and Bonfill, 2010), which allows to make the work replicable (Lourenço and Jones, 2006; Pittaway and Cope, 2007).

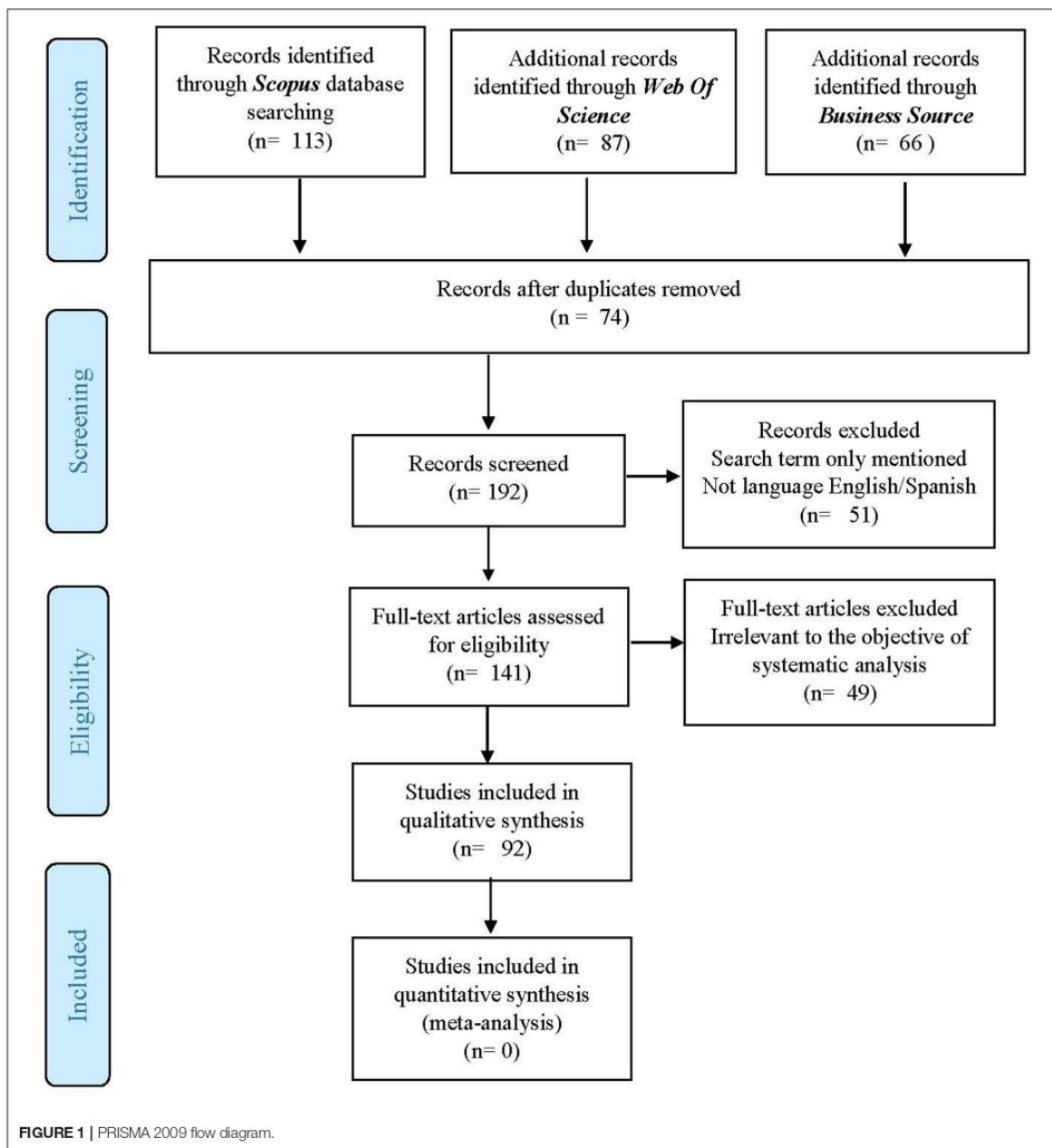
In order to search for relevant articles, we used three databases: Scopus, Web of Science and Business Source, without defining a specific publication period. The selection of these items was made on basis that are considered the most powerful databases in existence. Specifically, Web of Science because it is the oldest database of citations, dating back to 1900, and provides strong coverage in international research (Li et al., 2010), guaranteeing the highest quality; Scopus, on the other hand, with 27 million abstracts, is the largest database of scientific literature (Burnham, 2006); Business Source as a third database, as it provides a repertoire on entrepreneurial, business, and economics sciences literature.

Initially, within each database, we applied the Boolean search terms “famil* role,” “famil* support,” “parent* role,” “parent* support,” and “entrepren*” to identify all the publications that contained the keywords in the title of publications, author of key words or abstract. After eliminating all the duplicate articles, a total of 192 documents were identified over a period of time between 1989 and 2019. All 192 abstracts were read to ensure that the document deals with our construct. When a doubt arose, the entire document was read to confirm this.

As far as the inclusion/exclusion criterion is concerned, we have only considered journal articles since they are scientific knowledge (Podsakoff et al., 2005), written in English or Spanish language, and containing a direct relationship between the family (parental) role and entrepreneurship. On the contrary, were

excluded: chapters of books and conference papers, publications that did not make any connection between the two constructs, or that analyzed the role of family members other than the parental couple (for example, possible partners or brothers), and all articles written in a language other than English or Spanish. For example, we have excluded the article by Fernández Robin

et al. (2017) because they mention “the role of the family” in the abstract, but they refer specifically to housewives for women and how entrepreneurship and of family assistance seem incompatible, or the article by Logan (2014), as it analyzes the relationship between family and entrepreneurship, but refers to the support received from the partner or spouse.



A total of 92 articles were analyzed in this study (Annex 1 in **Supplementary Material**).

Figure 1 shows the flow Diagram of the study according to the recommendations of the PRISMA method.

Different types of indicators have been used.

Specifically, we analyzed year of publication, the productivity of authors, countries and journals, research area (e.g., Social Science, Business and Management, Economic etc.), type of research and sample. In addition, in order to measure the impact on productivity and on citation

of an author's publications and journals we used the *h*-index (Hirsch, 2005). In this sense, as underlined by Gaviria-Marin et al. (2018), it is an important bibliometric indicator that is commonly used by researchers given its ease of interpretation.

To analyze the most investigated thematic areas, was used the analysis of the co-occurrence of the authors' keywords, through the VOSviewer software version 1.6.10 (Van Eck and Waltman, 2010, 2014). It is a bibliometric technique that allows graphic representation, identification and classification of clusters in a strategic matrix associated on the basis of similarities and dissimilarities (distance-based maps). Moreover, while the qualitative analysis of the literature can be affected by the subjectivity of the author, this method allows to overcome this problem, becoming an instrument of undisputed and consolidated analysis (Vallaster et al., 2019), used in presently (Valenzuela et al., 2017; Martínez-López et al., 2018).

In **Table 1** we show a summary of the main methodological features of the study.

TABLE 1 | Characteristics of the bibliometric study.

Search terms	"famil" role"; "famil" support"; "parent" role"; "parent" support" AND "entrepren"	Records	113
Mentioned at least once in	Abstract, Title, or Keyword (Scopus) Topic or Title (Web of Science)		87
Time period	1989–2019		66
Language	English or Spanish		266
Document type	Peer-Reviewed Articles		192
Primary database	Scopus		92
	Web of Science		
Secondary database (quality checks)	Business Source		
Total articles			
Records after reading all abstracts to ensure that all articles were related to the search object (Excluding duplicates and no Peer-Reviewed Articles)			
Final analyzed records			
Analysis tools (bibliometric indicator)	Quantitative analysis (Spss Statistics 0.25); <i>h</i> -index and Cluster Analysis (VOSviewer)		

RESULTS

Figure 2 illustrates the growth, during the period 1989–2019, of the family role and entrepreneurship publications in the international scene. Research has experienced great development in recent years, in fact, since 2011, the interest in topics concerning the relationship between family and entrepreneurship has increased significantly, recording the most profitable peak of publications in 2017. Although only the first 3 months of 2019 are included in the data set, 4 articles had already been published during this period.

This increase in publications in recent years may suggest a continuous evolution of family role in entrepreneurship as current and still valid research trend topic.

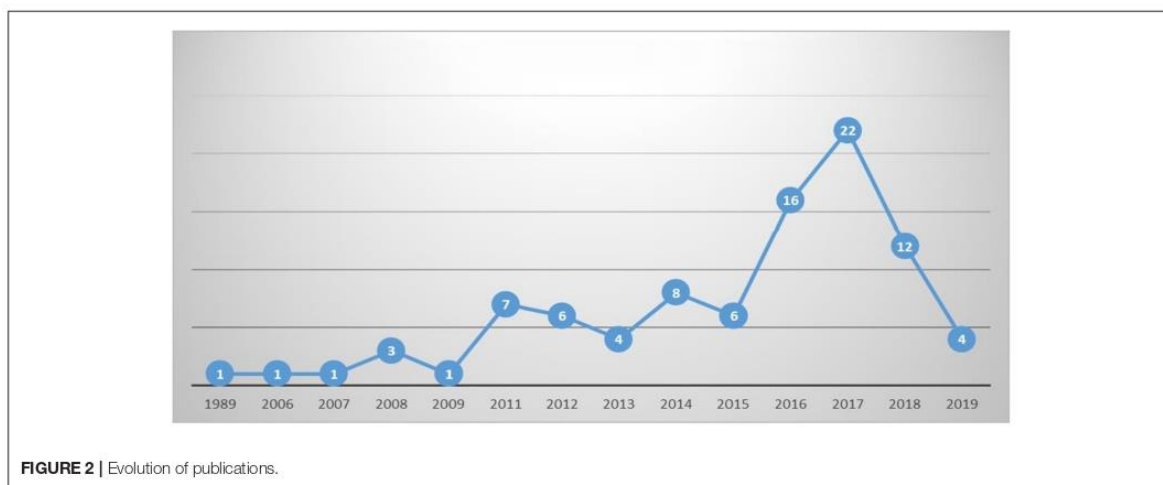


FIGURE 2 | Evolution of publications.

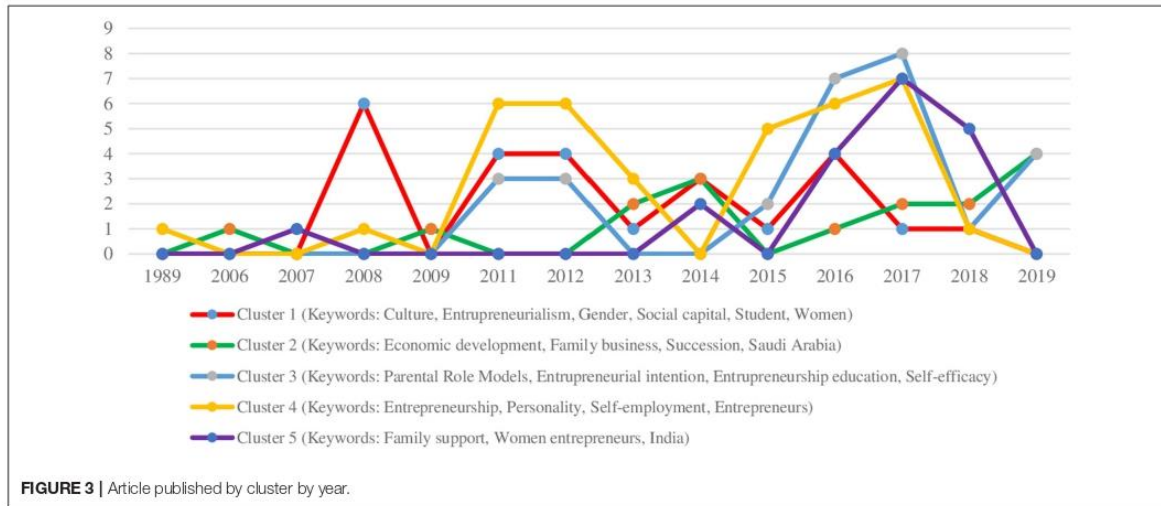


FIGURE 3 | Article published by cluster by year.

TABLE 2 | Article with the most publications on the subject.

No.	Journals	h-index	Research area
6	Int. J. Entrep. Behav. Res.	44	Business and Management
4	Journal of Business Research	166	Business and Management
4	International Journal Gender and Entrepreneurship	-	Social science
4	Journal of Entrepreneurship	15	Business and Management
4	Small Business Economics	108	Economics
3	Academy of Entrepreneurship Journal	-	Business and Management
3	Entrepreneurship: Theory & Practice	128	Business and Management
3	Int. J. Entrepreneurship and Small Business	-	Business and Management
3	Journ. Small Business and Enterprise Development	-	Business and Management

In order to analyze the trend of research in the family/parent support and entrepreneurship constructs, we used the dimensions obtained from cluster analysis. Figure 3 shows the progress of the research from 1989 to 2019. As noted, the constructs are associated with different fields of research, emphasizing the multidisciplinary character.

For example, over the years, the trend of research interests has changed. From the interest shown by the literature toward the cultural and social dimension (cluster 1—red line) and toward the individual personological characteristics of the entrepreneur (cluster 4—yellow line), in recent years the dimension that has received the most attention is the family one. The two most in-depth research themes, with a peak of interest between 2017 and 2018, are: the influence of parental role

models and the educational dimension in the development of entrepreneurial intentions (cluster 3—turquoise line), and the importance of family support (cluster 5—purple line), especially in developing countries and disadvantaged groups, such as female entrepreneurship.

Furthermore, in the year 2019 it would seem that there is a potential recovery for the theme of family businesses as factors of economic development, but clusters 2 and 3 would still seem to be actual.

Afterwards, we analyzed the productivity of scientific journals, generating a list of 92 articles. For the purposes of our analysis, we have considered journals with a minimum of 3 publications on the subject, classifying them from the most productive to the least productive. As can be seen from Table 2, the scientific journal that has more active the role of the family in the entrepreneurial process is International Journal of Entrepreneurial Behavior and Research ($n = 6$ articles; h -index = 44).

The analysis also revealed the multidisciplinary nature of the research area. Most publications ($n = 71$) are related to business and management research, but others come from psychology and social sciences ($n = 14$), economics ($n = 6$), and engineering ($n = 1$).

We performed as well an analysis to identify the authors who, are considered most influential in the development of this field of study. In the 92 articles that were part of the bibliometric study, a total of 239 authors were found (2.59 authors per article). 90.9% contributed with only one work on the subject, which shows that it is a highly dispersed field, probably due to its multidisciplinary nature.

This interpretation gained more strength after verifying that only 8 authors participated in two or more articles, as shown in Table 3. The first 3 authors with 4 articles are Kaciak, E. (h -index = 8); Memili, E. (h -index = 13), and Welsh, D. (h -index = 14).

Were also analyzed the countries where the research field of our object of study is more developed (Figure 4). Therefore, for the purposes of this analysis we have considered only countries with a minimum of 3 publications. The United States is the country with the largest number of publications ($n = 20$), followed by India ($n = 9$), and Canada ($n = 7$). The United Kingdom ($n = 6$) and Spain ($n = 5$) follow, in fourth and fifth place of the rank, and represent the two most productive countries in Europe in terms of research on the role of the family and entrepreneurship.

Finally, we conducted an analysis on the nature of the research and the type of sample. The quantitative analysis is the most used in the selected studies (69.6%), using a variety of analysis techniques: descriptive ($n = 34$) logistic, linear and hierarchical regression ($n = 22$); confirmatory, using Structural Equation Modeling ($n = 14$); correlation ($n = 17$); t -test ($n = 6$); univariate ($n = 5$); and multivariate ($n = 4$). Qualitative

studies ($n = 19$), on the other hand, the ones less frequently used are: observation ($n = 3$), case studies ($n = 5$), interviews ($n = 6$), in-depth interviews ($n = 8$), and focus group ($n = 1$), representing only 20.7% of the studies. Most of the articles applied more than one analysis technique. Finally, four articles (4.4%) used a mixed method (quantitative and qualitative research).

The results are summarized in Table 4.

Descriptive statistics and regression analysis are the most commonly used techniques in the reviewed articles, followed by correlation analysis and confirmation analysis through Structural Equation Modeling. The latter was mostly used, especially in more recent articles.

As for the type of sample used, the studies with entrepreneurs prevailed in 59.9% of the analyzed articles (of which 26.7% were female entrepreneurs), while the studies that analyzed

TABLE 3 | Authors with the greatest number of articles published.

No.	Author	Country	<i>h</i> -index	Affiliation	Main subject
4	Kaciak, E.	Poland	8	Kozminski University	Economic development; women entrepreneurs
4	Memili, E.	USA	13	The University of North Carolina	Family business; New venture creation
4	Welsh, Dianne H.B.	USA	14	The University of North Carolina	Economic development; Family business; Women entrepreneurship
2	Bignotti, A.	South Africa	1	University of Pretoria	Entrepreneurship education;
2	Le Roux, I.	South Africa	2	University of Pretoria	Contextual variables; Entrepreneurial endowment; Personality traits; Youth entrepreneurship
2	Khan, Muhammad	Saudi Arabia	1	Effat University	Entrepreneurship ecosystem; Female Start-ups; Saudi Arabia; Success factors
2	Morales-Alonso, G.	Spain	6	Universidad Politécnica de Madrid	Entrepreneurial intention; Parental role models; Attitudes toward work
2	Pablo-Lerchundi, I	Spain	2	Universidad Politécnica de Madrid	

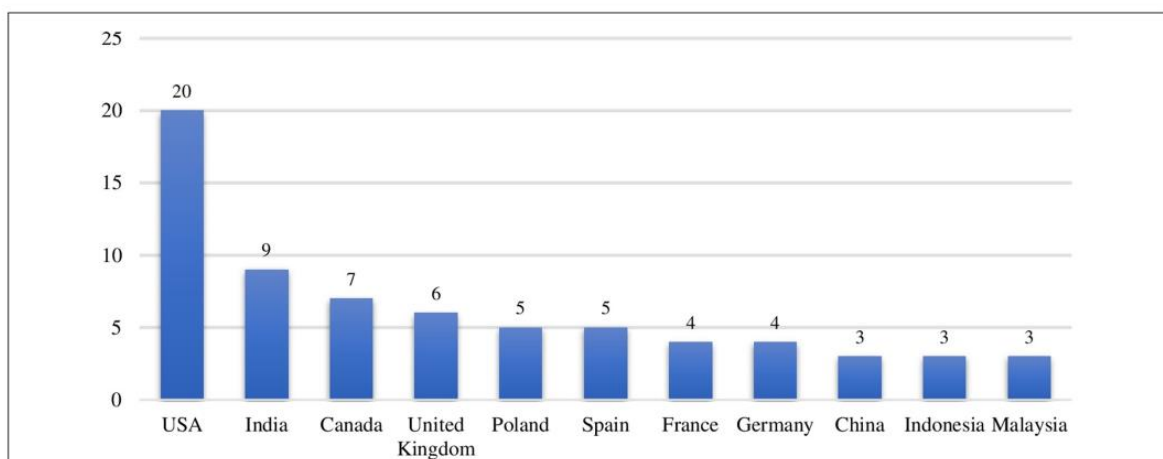


FIGURE 4 | Publications of countries.

students accounted for 30.5%. 7.7% of the studies considered other types of samples that do not fall into the categories previously explained.

En general, to identify the state of research on the relationship between family role and entrepreneurship, proceeded the co-occurrence analysis with one occurrence per keyword, for a total frequency of 237 authors' keywords grouped in 25 clusters.

As shown in Figure 5, the stronger relationships are graphically represented by larger circles and labels. The research topics most closely examined by scholars deals with entrepreneurship, family support and entrepreneurial intent.

For the purposes of the study, we have narrowed the field, performing a co-occurrence analysis with a minimum of three occurrences for keyword, for a total of 22 authors' keywords. The mapping and grouping provides a general review of the research in the context of entrepreneurial literature and in Figure 6 are shown the five most relevant clusters. Each cluster is represented

by a different color that highlights the relationship between them while the distance between the clusters provides information on the intensity of the relationship (Van Eck and Waltman, 2010).

Cluster 1: Cultural Dimension and Gender Issue (7 Items)

The occurrence of 21.8% of the keywords studied is associated with the red cluster formed by the following keywords: culture, women, female entrepreneurship, entrepreneurialism, gender, social capital and students.

The cultural dimension is one of the key elements for the family background and entrepreneurial process. According to some authors (Li, 2007; Gurel et al., 2010; Castillo-Palacio et al., 2017) the social and family context in which the individual grows, shapes his creative thinking, predisposes him to innovation and risk perception, develops social capital, generates value, thus creating cultures that encourage more entrepreneurship and autonomy than others.

As suggested by Zhao et al. (2012) there are two different theoretical explanations about the role that culture plays in business world. The first one, of a psychological nature, acting at the individual level (Hayton et al., 2002) and presupposes that culture acts on the skills and abilities of individual, modifying the behavior. The second line, based on institutional theory, considers culture as a substratum of the community, so some societies are more likely to promote entrepreneurial processes.

Several authors use this prospective to analyze entrepreneurial activity in different contexts, for example, Welsh et al. (2018), applying institutional theory, compared women entrepreneurs in Morocco and Turkey. Other studies have focused on other business contexts (McIntosh and Islam, 2010; Ramadani, 2015),

TABLE 4 | Nature of research and type of sample.

Nature of research	Total	% of the sample	Type of sample	Total	% of the sample
Quantitative	64	69.6%	Entrepreneurs	34	37%
			Students	27	29.4%
Qualitative	19	20.7%	Entrepreneurs	16	17.4%
			Students	1	1.1%
Review	1	1.1%	Entrepreneurs	1	1.1%
Mixed	4	4.4%	Entrepreneurs	4	4.4%
No Empirical	3	3.3%			

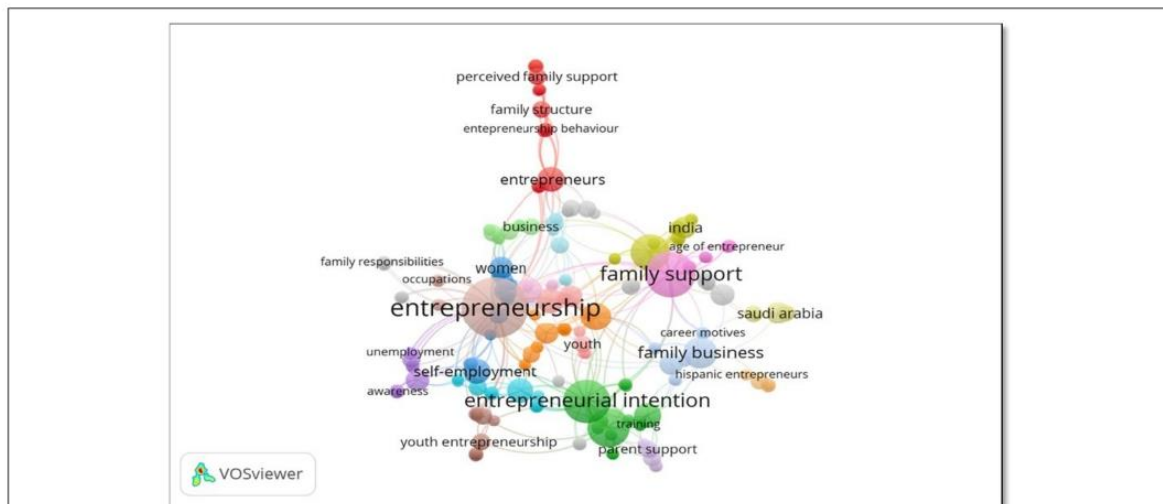


FIGURE 5 | One co-occurrence for keywords. Source: VOSviewer version 1.6.10.

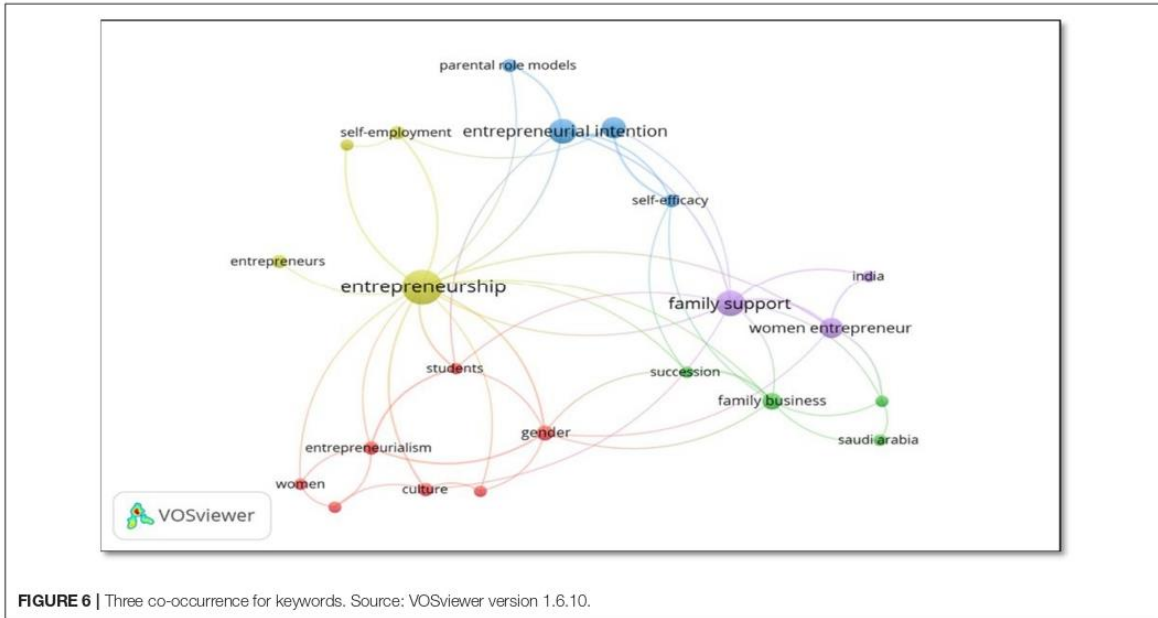


FIGURE 6 | Three co-occurrence for keywords. Source: VOSviewer version 1.6.10.

predominantly Islamic (Anggadwita et al., 2015; Mohd Rhouse et al., 2016), and Middle Eastern cultures (Bastian et al., 2018).

From this point of view, the cultural dimension is closely related to the “woman” variable and more generally to the “gender issue” because, as several studies have shown (Freitag and Thurik, 2007; Sengupta et al., 2013), behavior is often a consequence of different socio-cultural values that are taught and learned since youth and that last over time, which also applies to entrepreneurial behavior (Hofstede, 2001; Eid, 2006).

Indeed, despite the positive aspects of entrepreneurship understood as a career accessible to all and economically advantageous, a more in-depth analysis shows that there are many cultural obstacles (Ahl and Marlow, 2012), especially for women.

Specifically, the gap between male and female entrepreneurship has been explained by various theories, among which the most exhaustive is the “Social Role Theory” developed by Eagly (1987). According to this explanation, the male group is configured as the ideal for the entrepreneurial field (Bird and Brush, 2002), while women consider entrepreneurship less as a career path (Ahl, 2006).

Rubio-Bañón and Esteban-Lloret (2016) conducted a research to analyze the possible differences between male and female entrepreneurs in 55 different countries, considering cultural factors as among the most relevant hindrances for entrepreneurship (Bosma and Kelley, 2018). The observed results do not yet confirm that cultures with a higher rate of masculinity lead to a greater gender gap in female entrepreneurship rates. Other research has shown that in communities with high virility, women can share and take ownership of these cultural values and be more motivated toward an entrepreneurial career.

Indeed, the relationship between gender and cultural beliefs is still unclear: some studies have shown that women are pursue less an entrepreneurial career (Chen et al., 1998; Gupta et al., 2005). Other studies, instead, suggest that in cultures considered to be stereotypically masculine, women are more inclined toward entrepreneurial activity (Mueller and Conway Dato-on, 2008; Cardozo Crowe, 2010).

The cultural component, as a substrate of a society, comes into play with the variable “students,” in fact, as the literature shows, it is important to adopt policies that support entrepreneurial development at school.

The promotion and enhancement of the “entrepreneurial culture” has become an important component in the initiatives and in the offer of services for students. Universities are called to accept this challenge to prepare students for the acquisition of entrepreneurial skills and competences that allow them to cope with the multiplicity of today’s society, in constant evolution and change (Bygrave, 2004).

Promoting student entrepreneurship means making them more aware of their future, in the field of business, to translate ideas into actions.

This cluster shows a relationship with the main terms of the analysis: entrepreneurship and family support, because cultural factors pass through the micro-social dimension of society, including the institutions that live in that community. Social agencies like the school, but also the family, have the task of creating an entrepreneurial-supportive environment that can encourage entrepreneurial activities in students, helping to develop an entrepreneurial culture (Roffe, 1999). Supporting this point of view, many authors (Pruett et al., 2009; Al-Harhi, 2017) agree that regardless of the type of person, different

strategies can be used to motivate the students in choosing an entrepreneurial career, encouraging them to work independently and to expose them to entrepreneurial success stories that can serve as models for the acquisition of skills, technical knowledge and relevant know-how.

Cluster 2: Family Business and Succession (4 Items)

The green cluster consists of the following keywords: family business, succession, economic development, and Arabia Saudita, which constitute the 12.1% of the occurrences.

The authors agree that the factor that distinguishes family and non-family businesses is the intention to transfer the control of the company to its following generation (Chua et al., 1999), a factor that also contributes to economic growth in the developing countries (and also in advanced economies).

The intertwining of family firms and business has a profound impact on entrepreneurial experiences, especially for children, it is so influential that it is considered by Rogoff and Heck (2003), together with human capital and education, as the oxygen that fuels the entrepreneurial fire.

Family businesses are important, not only from a financial point of view, but also because provide long-term stability in the labor market because of the responsibility they show to communities, since they convey values and knowledge. All these factors are valuable instruments of change to counteract the current financial crisis. As highlighted in the final report on family businesses, conducted in 2009 by the European Commission, at European level, more than 60% of existing businesses are family-run. "Most SMEs (especially micro and small enterprises) are family businesses and a large majority of family companies are SMEs" (European Commission, 2009, p. 4).

However, the successor's intention to continue their family's business depends on whether their parents are willing to support them, contributing to the development and success of their family activities (De Massis et al., 2014). In fact, despite the undoubted importance that family succession has from an economic and social point of view, international studies have shown that the newer generation has low interest as well as intention to work in their parents' business (Zellweger, 2017). According to the Sieger et al. (2016), conducted in 50 countries, 8.8% of the 122,000 university students intend to start their own business, but only 2.7% want to be part of the family business. A model of "employee first, then founder" emerges 5 years after studies, in which 38.2% intend to found a business, but only 4.8% consider themselves as employee in their own family business (Sieger et al., 2016). Similar results were achieved by Zellweger et al. (2011), who found that the possibility of being able to inherit the family business does not make it a desirable choice. The successors tend to feel confident about their skills and knowledges, but appear pessimistic about the succession because they considered themselves less autonomous.

In the current context, characterized by an aging population and the desire of many entrepreneurs to transfer the family business to their children, this result is worrying (García et al., 2018).

The performance of those who enter the family business is better when perceived family responsibility as strong, this result highlights the strength of family expectations in positively influencing members' performance (Dawson et al., 2015).

One of the very few studies on the succession of daughters in the family business, conducted by Overbeke et al. (2013), examined the factors that may contribute to this generational shift. The results revealed that family support and leadership tutoring are the most important elements.

Parental support in family businesses is very important not only in the succession phase, but also when the company is consolidated, for example, based on data from 228 entrepreneurs, Marshall et al. (2018) found that the active involvement of the family creates a common destiny among members that favors resilience for an entrepreneur, compared to the owners of non-family businesses.

It is important to understand that the factors that influence the intentions of the members of the next generation to undertake an entrepreneurial career requires a systemic analysis that also considers the behaviors of their parents (Nordqvist and Melin, 2010) and the perception that children have of this support (García et al., 2018).

Cluster 3: Parental Role Models and Entrepreneurial Intention (4 Items)

The third cluster associates the following keywords: entrepreneurial intention, entrepreneurship education, parental role models and self-efficacy. The 22.6% of keywords are related to this cluster which emphasizes the importance of entrepreneurial education, parental role model and self-efficacy for entrepreneurial intention development.

Historically, intentions have been considered as the antecedent of behavior (Ajzen and Fishbein, 1977; Ajzen, 1991). The meta-analysis by Sheeran (2002) conducted on 422 studies, showed that the correlation between intentions and behavior explains 28% of the variance in behavior. For this reason, much of the literature has been interested in studying the factors influencing intentions. In this regard, in recent decades, great importance has been attached to the positive influence played by role models in improving the intentions of choosing an entrepreneurial career. Bosma et al. (2012) found that 54% of a sample of 292 entrepreneurs had a role model (20% in the pre-start-up phase, 10% in the post-start-up phase and 24% in both phases), in addition, one-third of the sample stated that they would not have founded their company without this role model.

The positive influence of role models on entrepreneurial intentions has been empirically analyzed in various cultural contexts. A German study by Chlosta et al. (2012) showed that parental role models increased the likelihood of individuals becoming self-employed. Urbano et al. (2011), instead, established that individuals with the same ethnicity can act as a model, encouraging other individuals in the community to create new businesses. The study conducted by Pablo-Lerchundi et al. (2015) showed that the profession carried out by parents influences the entrepreneurial intentions of students, who

were more likely to choose an entrepreneurial career if their parents were entrepreneurs than children of public officials. In recent years, the impact of role models on entrepreneurial process was confirmed in different professional categories, as in academic entrepreneurs (Fernández-Pérez et al., 2015) and active entrepreneurs (Bosma et al., 2012; Fritsch et al., 2012).

Self-efficacy has also been considered an important factor that increases the intentions to undertake a certain behavior, especially if associated with a positive attitude toward this behavior (Markham et al., 2002). Relationship between self-efficacy and parental role models as well as attitudes toward entrepreneurship have been established in numerous studies. For instance, Carr and Sequeira (2007) in a research conducted on 308 individuals, found direct and indirect effects of previous family exposures on entrepreneurial intention, through the mediation of perceived family support and entrepreneurial self-efficacy. BarNir et al. (2011), which indicated the positive influence of role models on entrepreneurial intention and the role of mediation exercised by self-efficacy, arrived at the same conclusion. Similar studies were conducted for female university students (Sahinidis et al., 2019). Laviolette et al. (2012) found that role models positively influence entrepreneurial intentions by increasing self-efficacy, provided that such models are positively perceived by individuals, so as to enable them to identify themselves.

Furthermore, role models also play a key role in entrepreneurial training processes, positively influencing the development of entrepreneurial skills (Heinonen and Poikkijoki, 2006). Entrepreneurship education, effectively, influences on the intention of undertaking autonomous activities through two objectives: creating and spreading knowledge (Perreira and Da Silva, 2003) and encouraging students to develop skills in human capital (Gupta and York, 2008). The importance given to the role of education in the entrepreneurial process is underlined by the Global Entrepreneurship Monitor (GEM) which dedicated the special theme of 2008 to Entrepreneurship Education and Training.

In the literature there are studies that explain how perceived family support can come into play in this process. For example, in a research by Denanyoh et al. (2015) emerged that university support, structural support and emotional support of the family are important factors that influence the entrepreneurial intention of students in Ghana. The same result emerges from a study conducted by Bignotti and le Roux (2016) which found that entrepreneurship education and family support positively influence students' need for achievement and entrepreneurial intentions. In another study conducted, Laguía et al. (2019) found that the perceived family support and university support are positively associated with entrepreneurial intentions in students. Furthermore, entrepreneurial self-efficacy and entrepreneurial education moderate the relationship between support and entrepreneurial intention.

At the same time, the research emphasized the importance of entrepreneurship education as a possible tool that, based on skills and knowledge useful to the subjects in order to achieve greater self-confidence and security, could lead to overcoming

the gap between men and women in the entrepreneurial field (gender bias).

Entrialgo and Iglesias (2017), on a sample of 338 students found that the role models and entrepreneurship education have a greater positive influence on attitudes toward entrepreneurship in women compared to men.

Exposure to parental role models and entrepreneurship education can be used as tools to reduce the negative prejudicial effects, in general and those related to female entrepreneurship in particular, improving attitudes toward an autonomous career choice.

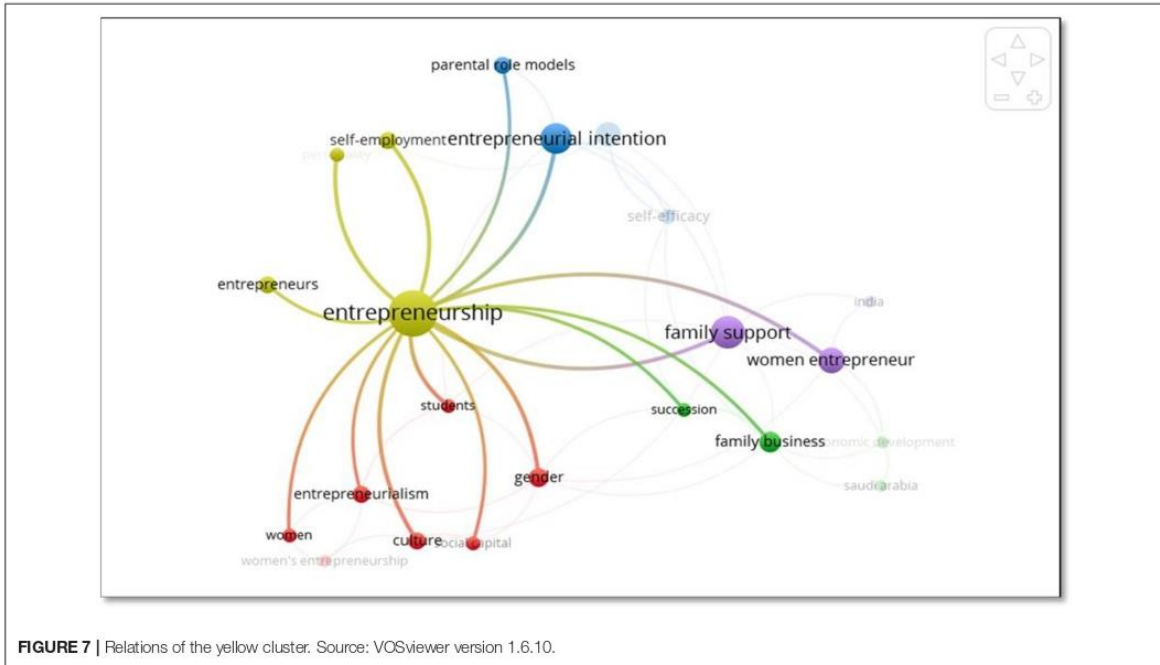
Cluster 4: Entrepreneurship and Self-Employment (4 Items)

The co-occurrence of 25% of keywords is related to the fourth cluster that shows the greatest number of connections in the map. The following words are part of this cluster: entrepreneurship, self-employment, entrepreneurs, and personalities (Figure 7).

Entrepreneurship is considered instrumental to economic growth and technological development (Fellnhöfer and Kraus, 2015; Nowinski and Haddoud, 2019), as an important source of employment in developed and developing countries (Kuratko, 2005). It is not just a factor of economic growth aimed at creating new jobs; it also constitutes a useful personal development tool contributing to the resolution of social issues by promoting a society capable of attributing the correct value to the entrepreneurial mind, and by fostering development of positive attitudes in achieving objectives that concern the community. For example, according to The European Commission (2003), it is a state of mind and a process aimed at creating and developing economic activity by combining willingness to take risks, creativity and innovation.

For the reasons mentioned above, discovering which factors, at the micro and macro level, can lead people to pursue an entrepreneurial career, in recent decades has been the one of the central theme of scholars. In particular, studies conducted on the characteristics of potential entrepreneurs tend to focus, especially on the importance attributed to personality traits (this explains the strong relationship between the words "entrepreneurship" and "personality"), but also, albeit with less strong relationships, to the resources accumulated from education and experience (educational and family background) (Serneels, 2008) and specific behavioral models (Liñán and Fayolle, 2015), which is why, in our analysis, it represents the construct with more relationships with other clusters.

The study of the phenomenon of entrepreneurship can be divided into two phases. In the initial stages of the research, the psychological literature has focused on the study of the personality and the motivations that push a subject to undertake this choice and that can lead to a possible work and personal success (Boyd and Vozikis, 1994). Caird (1993), in an attempt to trace a profile of the typical entrepreneur, offered a synthesis of the results of the researches that have used psychological tests on entrepreneurs, it is necessary to underline that the poor homogeneity of the entrepreneurial population represents a critical aspect for this survey. For this reason, currently, the



focus has shifted to the interaction between socio-economic and cultural reality, and decision-making behaviors capable of influencing a chain of events on different levels (personal, family, and economic) (Shane, 2003; Rauch and Frese, 2007). What we are witnessing, in fact, is a decentralization of personal characteristics and a greater attention to complex behaviors acted along different phases of the entrepreneurial process. However, the effects of the cultural-family component have not yet been fully clarified (Ucbasaran et al., 2008). Research on the creation of new businesses has focused mainly on the importance of higher education and employment, with a limited emphasis on education received in the family. This could be the explanation about the challenging why it is so difficult to establish clear links between the role of the family and the potential entrepreneurial spirit.

Cluster 5: Family Support and Women Entrepreneurs (3 Items)

Finally, the fifth cluster in purple shows the closeness and strength of connection in the words family support, women entrepreneurs and India. Together with cluster four, it represents the heart of this analysis, which is why even if the number of keywords related to this cluster is low (18.5% of the occurrences) it is the second cluster with the greatest number of relationships with others (Figure 8).

In most societies, especially in developing countries, women’s access to entrepreneurship is difficult. The possible explanations have been analyzed in the literature and, although with some socio-cultural differences, they can be summarized as

follows: poor social background and lack of support family; conflicts family/care responsibilities; inadequate training; lack of institutional and social interest; consequences of male domination in society and socio-economic discrimination (Kibas, 2006; Mutuku et al., 2006; Lockyer and George, 2012; Raghuvanshi et al., 2017). In recent years, many researchers have analyzed female entrepreneurship and associated limitations (Gautam and Mishra, 2016; Raghuvanshi et al., 2017).

For example, in our analysis, several studies have underlined the importance of family support, when external support systems are limited, especially economically disadvantaged countries or in the case of female entrepreneurship (Pearson et al., 2008; Chang et al., 2009, 2012).

Family support is important with particular reference to women entrepreneurs (Neneh, 2017; Welsh et al., 2018), particularly for those who may not have access to other networks during the business development process (Greve and Salaf, 2003), but also in finding the right balance between family duties and working. In this direction, are the results of a research conducted by Heilbrunn and Davidovitch (2011) with 11 Israeli women entrepreneurs. The support perceived by the family can be even more valuable in the case of entrepreneurial families, because they become models for aspiring entrepreneurs during the process of preparing for the adventure, influencing entrepreneurial intentions (Ahmed et al., 2012; Edelman et al., 2016; Zhu et al., 2017).

As a result, the study also confirmed the positive influence of family members, in terms of support, in the strategic

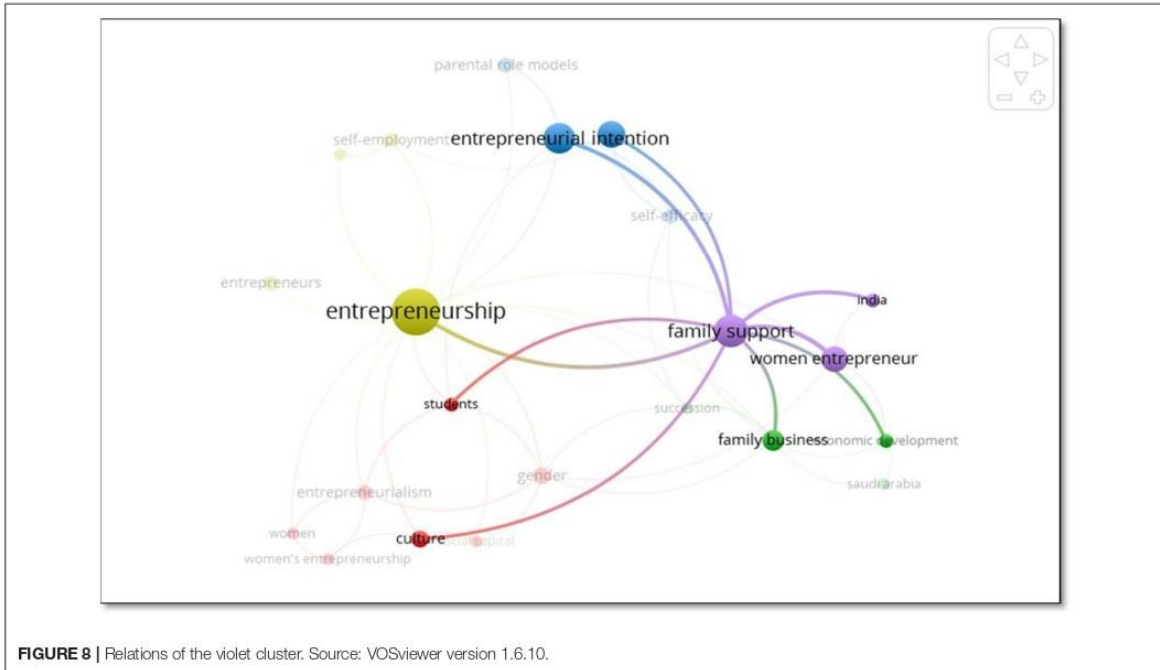


FIGURE 8 | Relations of the violet cluster. Source: VOSviewer version 1.6.10.

management process. In fact, family members act as positive educational models, which can contribute to starting a business and successful management (Steier, 2003; Arregle et al., 2007), through knowledge and values that are handed down to the children become their human and social capital.

In addition, family members can provide the entrepreneur with a financial start capital of family finances (for example, in the initial phases) or help obtain external funding sources (Aldrich and Cliff, 2003; Anderson et al., 2005). Furthermore, they can offer the necessary work and support that can be useful for creating and managing a business (Teixeira, 2001; Karra et al., 2006).

We could fundamentally highlight two types of family support, emotional/relational, and economic/financial, both a vital resource for supporting entrepreneurship, and useful for both entrepreneurial and economic growth (Shen et al., 2017). In this sense it is wise to expect that emotional support is important especially in developing intentions, as a source of encouragement for those who have no direct experience and can rely on the resources of their families.

While the economic one comes into play, especially in the start-up phase of a business, a transition from intention to behavior, which affects a larger slice of the population.

In line with Aldrich and Cliff (2003), the family plays a key role in the children's enterprise, not only economically, but also by providing knowledge for new initiatives (for example, advice on how to start a business). Sometimes, even "new ideas" (Dyer and Handler, 1994).

DISCUSSION

Through this work, we carry out a systematic review of the literature on the role of the family in the entrepreneurial process, using different types of bibliometric indicators and cluster analysis.

In the research and selection phase of the articles, we have used various databases of proven utility, such as Scopus, Web of Science and Business Source. Several conclusions emerged from our analysis.

From the results of the bibliometric indicators, it is a relatively recent area of study, but in continuous evolution, considering that the first articles date back to the year 1989, and from a multidisciplinary field of study, which as shown by the analysis of scientific journals, it is mainly linked to the business and management field, and even if in a smaller number, also to social and psychological sciences, economics, and engineering.

Moreover, as shown in Figure 6, research on the role of the family in entrepreneurial activity has grown considerably, especially over the last decade with the United States of America being the country with the most publications on the topic (n = 20).

The review also reveals that the scientific journals with the greatest number of publications on the subject is the *International Journal of Entrepreneurial Behavior and Research* (n = 6), while the most productive author is Kaciak Eugene (n = 4).

Regarding the analysis structure, the most important result is the fact that it is a field of study with non-sharply outlined borders

that lacks systematization, probably due to its multidisciplinary character. Indeed, 90.9% of researchers contributed with only one work, this result acquired a greater intensity when it was verified that only 8 authors participated in two or more articles from the examined databases.

As for the cluster analysis, five themes have been highlighted which try to better explain the relationship between family role and entrepreneurship. Specifically, we found: (1) cultural dimension and gender issue, (2) family business and succession, (3) parental role models and entrepreneurial intention, (4) entrepreneurship and self-employment, (5) family support and women entrepreneurs.

Furthermore, the analysis also found that most of the research focused on different themes.

The cluster that obtained the highest percentage of co-occurrences is the yellow one, associated with the following keywords: entrepreneurship, self-employment, entrepreneurs, and personalities, and is also the cluster with the greatest number of relationships with other clusters, especially with family support and exposure to parental role models, emphasizing once again the importance that family has in the entrepreneurial process. On the contrary, the cluster with the lowest percentage of co-occurrences keywords is related to family business, succession, economic development, and Arabia Saudita.

This result could be a good starting point for future research, as it suggests that there are many opportunities to increase and further develop knowledge about the relationship between the role of the family and entrepreneurship. For example, it might be useful to reflect on the possible role that exposure to parental role models plays in corporate succession and analyze any differences through the comparison between entrepreneurial and non-entrepreneurial families. Future research could analyze how and why exposure to models of parental role, or support perceived by family members, has a different influence in different cultures and contexts, especially in disadvantaged contexts, making clear reference to Hofstede's cultural dimensions. It could reflect on why, some contexts, families emotionally support the new generations, promoting entrepreneurial behavior, even in females, while others do not, even if both belong to a stereotypically considered patriarchal culture at the macro level.

Some limitations should be noted. First, in this study, only peer-reviewed articles are considered, eliminating other types of documents, such as book chapters and conference papers. Although this is considered important for the purposes of reliability and quality of the results, it can represent a limit as part of the scientific contributions has been neglected limiting a more detailed knowledge on the research object.

Furthermore, it should be stressed that there is a tendency to mention journals that have open access. There are also journals that can be accessed through payment and that publish articles in languages other than English and Spanish. These are limitations that the reader should consider.

From a purely methodological point of view, some considerations must be made. This article focuses on a group of bibliometric indicators to examine the articles published in

the selected databases. Alternative objective analysis techniques and different databases could be useful to provide a systematic description of the literature and to analyze each relevant topic concerning the support of the family from a different point of view, in order to adequately understand the research evolution and propose future research directions in a more accurate way.

Moreover, as regards cluster analysis, even if it is considered a reliable scientific method widely recognized by scholars (Rafols et al., 2010) because it offers an immediate and simple interpretation of the information and the contextualization of a specific one research field, even for non-experts, the boundaries between the various clusters are not always clearly interpreted. This could derive from the fact that the same article can be part of different clusters if it contains keywords that are part of several clusters. For this reason, the mappings should not be considered as tools that provide unequivocal answers to emerging problems, but heuristic methods useful for opening plural perspectives in order to give information about a given field of research.

Furthermore, as pointed out by Rafols et al. (2012), the analysis through maps is very complex in studies on innovation, business, and management as it provides a limited number of significant relationships that take into account the amount of keywords considered (for example, only 22 keywords were generated in this study). This result may be a limitation considering the multidisciplinary nature of the research field and the high fragmentation that characterizes specialized literature.

This study sought to define the boundaries of existing research and at the same time to bring new perspectives of future research, through theoretical and methodological suggestions, aiming to be useful for the development and discovery of new fields of study, expanding the knowledge about the relationship between family support and entrepreneurship. This is an important aspect, not only for academic research and for professionals, but for the agents responsible to promote the entrepreneurial spirit in the community, important as it emerged also in our analysis, at the micro and macro level, for human, social, and economic growth.

AUTHOR CONTRIBUTIONS

In the contribution for this survey we describe in detail the following: GC has selected all the useful information for this review. BH-S has provided interesting details on the subject. JS-G examined the final document and the methodological protocol. The authors have decided to approve the final work and take full responsibility for the originality of the research.

FUNDING

This research was funded by the Board of Education of the Junta de Castilla y León (ref J424), Spain.

ACKNOWLEDGMENTS

We thank the Chair of Entrepreneurs University of Salamanca for supporting the research and monitoring of all activities.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2019.02939/full#supplementary-material>

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Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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4.2 Publicación II: Emprendimiento femenino: una revisión sistemática para delinear los límites de la literatura científica



Cardella G. M., Hernández Sánchez, R. B., & Sánchez García, J. C. (2020). Women Entrepreneurship: A Systematic Review to Outline the Boundaries of Scientific Literature. *Frontiers in Psychology, 11*, 1557. <https://doi.org/10.3389/fpsyg.2020.01557>.

Resumen

La relación entre emprendimiento y mujeres ha obtenido un amplio consenso entre los académicos, sobre todo, en comprender la brecha de género y los factores que explican las dificultades que enfrentan las mujeres para elegir una carrera emprendedora. De hecho, es un tema de investigación que ha obtenido resultados ambiguos y no siempre fáciles de interpretar. En este artículo se ha realizado un análisis sistemático para conocer y comprender el estado del arte de la investigación sobre la relación entre emprendimiento y mujeres y contribuir a la literatura internacional.

Para ello, se seleccionaron 2.848 artículos revisados por pares, publicados entre 1950 y 2019, utilizando la base de datos Scopus y los términos de búsqueda: “Entrepren*” AND “women”. Los factores de inclusión utilizados para la selección de los documentos fueron: (i) artículos científicos publicados en revistas revisadas por pares, (ii) artículos escritos en inglés, (iii) hasta el año 2019. Además, para minimizar el componente subjetivo, los errores de atribución y poder replicar el trabajo (Lourenço y Jones, 2006; Pittaway y Cope, 2007), se siguieron las recomendaciones del método PRISMA (Liberati et al., 2009; Moher et al., 2009; Urrútia y Bonfill, 2010).

A través de una serie de indicadores bibliométricos y análisis de co-ocurrencia de palabras clave (análisis de clúster y red de superposición) fue posible definir el estado del arte de la investigación en el escenario internacional a lo largo de los años.

El análisis bibliométrico reveló que se trata de un campo de estudio multidisciplinario que afecta principalmente al área del emprendimiento y la gestión, pero también a los estudios sociales y de género, economía, ciencia Política, tecnología e innovación, y que a lo largo de los años ha mostrado un interés constante por parte de los académicos, con un importante desarrollo en los últimos 20 años, resultado que subraya la

actualidad del objeto de estudio.

Además, el análisis mostró que, en la última década, el "research front" de la investigación sobre el emprendimiento femenino (figura 3 del artículo) ha mostrado un cambio de interés en la comunidad científica, pasando del estudio de los problemas económicos y políticos y la importancia que el emprendimiento femenino asume en el crecimiento económico (especialmente en economías en desarrollo) del país (palabras clave en violeta: desarrollo empresarial, financiamiento, crecimiento económico, economía informal, política), a la importancia de la educación emprendedora, el emprendimiento social y el contexto sociocultural de referencia (por ejemplo, cultura, apoyo familiar e institucional) como factores para superar la brecha entre hombres y mujeres (las palabras clave en amarillo: redes sociales, modelos de rol, cultura, educación, empoderamiento de la mujer, emprendimiento social, apoyo familiar, capital social, autoeficacia).

El análisis de cluster permitió aislar 6 líneas de investigación diferentes (Tabla 5).

Tabla 5. Líneas de investigación de la literatura científica sobre emprendimiento y mujeres

Clúster	Palabras Clave	Artículos	Ejemplo de Artículo
1 Barreras al emprendimiento de las mujeres 14 ítems	Barreras, Negocios, Desafíos, Países en Desarrollo, Desarrollo Económico, Empoderamiento, Empresa Familiar, Igualdad de Género, Microcrédito, Micorofinanzas, Motivación, Rendimiento, Mujeres, Mujeres Emprendedoras	627	Al-Shami et al., (2019). Women's entrepreneurs' micro and small business performance: Insights from Malaysian microcredit. <i>International Journal of Entrepreneurship and Small Business</i> , 38(3), 312-338.
2 El papel del capital humano y social en el crecimiento de las empresas de mujeres 7 ítems	Brecha de Género, Crecimiento, Capital Humano, Innovación, Pequeñas Empresas, Capital Social, Redes Sociales	394	Brush et al., (2017). The influence of human capital factors and context on women's entrepreneurship: Which matters more? <i>Journal of Business Venturing Insights</i> , 8, 105-113.
3 Cultura y diferencia de género 6 ítems	Cultura, Intención Emprendedora, Educación Emprendedora, Diferencias de Género, Autoeficacia, Autoempleo	429	Stedham & Wieland (2017). Culture, benevolent and hostile sexism, and entrepreneurial intentions. <i>International Journal of Entrepreneurial Behaviour and Research</i> , 23(4), 673-687
4 Apoyo familiar y gestión de la maternidad 6 ítems	Discriminación, Emprendimiento, Familia, Finanzas, Género, Maternidad	974	Jaafar et al., (2015). The role of family on gender development of women construction entrepreneurs. <i>Advances in Environmental Biology</i> , 9(5), 120-123
5 Relación entre emprendimiento social y	Emprendimiento Femenino, GEM, Liderazgo, Motivaciones, Emprendimiento	374	Alexandre-Leclair (2017). Social entrepreneurship and social innovation as a tool of women social inclusion and sustainable heritage preservation: The

empoderamiento de la mujer 6 items	Social, Equilibrio entre la vida personal y laboral		case of the Sougha Establishment in UAE. <i>International Journal of Entrepreneurship and Small Business</i> 31(3), 345-362.
6 Un punto de vista feminista 5 items	Feminismo, Identidad, Neoliberalismo, Políticas, Posfeminismo	312	Berglund et al., (2018). Women's entrepreneurship, neoliberalism and economic justice in the postfeminist era: A discourse analysis of policy change in Sweden. <i>Gender, Work and Organization</i> , 25(5), 531-556.

La línea de investigación que ha recibido la mayor atención de los académicos y, por tanto, un mayor número de estudios, está relacionada con la importancia del apoyo familiar a las mujeres emprendedoras (clúster 4), especialmente cuando los sistemas de apoyo externo son limitados (Chang et al., 2009, 2012), tanto como fuente de apoyo económico, especialmente en las etapas iniciales de creación de empresas (Shen et al., 2017; Cardella et al., 2020), como en referencia al tema de la maternidad (Jennings y McDougald, 2007) como apoyo moral y psicológico para las mujeres que tienen que conciliar las responsabilidades familiares con el deseo de seguir una carrera emprendedora.

Por otro lado, el tema de investigación menos desarrollado por los académicos se refiere a las teorías feministas (clúster 6), que explican la discriminación de género en el emprendimiento como resultado de estereotipos y prejuicios presentes en la sociedad, seguido del clúster 5, es decir, la relación entre emprendimiento social y emprendimiento femenino. Este resultado podría encontrar una posible explicación en el hecho de que tanto el emprendimiento femenino como el social son dos campos de investigación extremadamente recientes que solo en los últimos años han recibido un amplio consenso entre los investigadores.

El análisis de la literatura muestra que la relación entre emprendimiento y mujeres es muy compleja y matizada, en la que las mujeres no están subordinadas a los hombres, sino que simplemente hacen negocios de manera diferente, haciendo una contribución significativa y valiosa a la sociedad, promoviendo la inclusión y la lucha contra la pobreza y la discriminación. Comprender estas diversidades, por lo tanto, significa comprender mejor los factores que impulsan el emprendimiento en general, de los cuales las mujeres son parte.

Palabras Clave: Emprendimiento; Mujeres; Revisión de la literatura; Brecha de género; Emprendimiento femenino; Barreras; Equilibrio trabajo-familia, Desarrollo económico.



Women Entrepreneurship: A Systematic Review to Outline the Boundaries of Scientific Literature

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OPEN ACCESS

Edited by:

Jennifer Griffith,
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Specialty section:

This article was submitted to
Organizational Psychology,
a section of the journal
Frontiers in Psychology

Received: 20 February 2020

Accepted: 10 June 2020

Published: 17 July 2020

Citation:

Cardella GM, Hernández-Sánchez BR
and Sánchez-García JC (2020)
Women Entrepreneurship: A
Systematic Review to Outline the
Boundaries of Scientific Literature.
Front. Psychol. 11:1557.
doi: 10.3389/fpsyg.2020.01557

In recent years, the study of women entrepreneurship has experienced great growth, gaining a broad consensus among academics and contributing above all to understanding all those factors that explain the difficulty of women in undertaking an entrepreneurial career. This document tries to contribute to the field of study, thanks to a systematic analysis through the publications present in the topic. For this purpose, 2,848 peer-reviewed articles were analyzed, published between 1950 and 2019, using the Scopus database (SCImago Research Group). Through the use of a series of bibliometric indicators it was possible to define the current state of research on the international scene. The analysis revealed that it is a multidisciplinary field of study and that has started to expand further since 2006, culminating in 2019, which makes it become a current and valid object of study. The analysis of the clusters allowed to isolate 6 different lines of research in which emerged, on the one hand, the importance of entrepreneurial education, social entrepreneurship and the socio-cultural context of reference (e.g., culture, family, and institutional support) as tools to overcome the gender gap, on the other, the importance that women entrepreneurship assumes in the economic growth of the country (especially in developing economies), promoting social inclusion and combating poverty and discrimination. The study presents an important contribution to reflect on current policies and to outline future lines of investigation.

Keywords: entrepreneurship, women, literature review, gender gap, female entrepreneurship, barriers, work-family balance, economic development

INTRODUCTION

Female entrepreneurs represent the fastest growing category of entrepreneurship worldwide and have received, especially in recent years, the attention of many academics. According to the emerging literature, women can make a significant contribution to entrepreneurial activity (Noguera et al., 2013) and economic development (Kelley et al., 2017; Hechevarría et al., 2019) in terms of creating new jobs and increasing the gross domestic product (GDP) (Bahmani-Oskooee et al., 2013; Ayogu and Agu, 2015), with positive impacts on reducing poverty and social exclusion (Langowitz and Minniti, 2007; Rae, 2015). The percentage of women who decide to pursue an entrepreneurial career is, however, lower than that of men (Elam et al., 2019), and this difference is greater as the level of development of the country increases (Coduras and Autio, 2013).

A theoretical framework used to explain this difference underscores the importance of economic and regulatory conditions (Estrin and Mickiewicz, 2011). For example, in the literature it is possible to trace substantially two macro-categories that have a different impact on the entrepreneurial activity of men and women. The first refers to the role of property rights underlying an entrepreneurial productive activity. In general, property rights facilitate access to resources and, in many institutional contexts, women are particularly limited in their access to the economic resources necessary for entrepreneurship (Brush et al., 2009), as entrepreneurs have to rely more on informal networks that usually tend to be dominated by men (Aidis et al., 2008). Furthermore, because of gender-defined social positioning, men can also be more effective in dealing with government officials (Bardasi et al., 2011).

The second focuses on a group of government-determined regulations and policies, such as welfare and system taxes. Some studies (Parker, 2009; Aidis et al., 2010) have found that a larger state sector militates against entrepreneurial activity. Therefore, tax and social security provisions can influence entrepreneurial entry through their direct impact on expected returns from entrepreneurial activities and opportunity costs. High levels and rising marginal tax rates can weaken incentives for opportunity-oriented entrepreneurs by reducing the potential, while higher levels of social assistance provide alternative sources of income and, therefore, by increasing alternative wages, they can reduce incentives for entrepreneurship. This appears particularly important in the case of women as a large state sector is dedicated to women offering security, educational services, health care and housing, but inevitably reducing their premiums.

However, among countries with similar economic conditions (Minniti, 2010; Dheer et al., 2019), this difference continues to exist between men and women when it comes to starting a business, which has led to calls to further expand the scope of explanatory factors (McGowan et al., 2015).

In line with this reasoning, there is empirical evidence that a woman's decision to start a business depends on her socio-cultural background (Ahl, 2006).

A first theme of analysis useful to explain the gap between men and women in entrepreneurship can be represented by the social roles and stereotypes that are culturally assigned to men and women.

The term gender was first introduced by Stoller to describe people based on biological physical characteristics, this would determine the individual's behavior. Based on these characteristics, men are expected to behave well masculine while women should think and to behave feminine. According to the social role theory (Eagly, 1987), gender stereotypes can make a person socially acceptable. When a role is associated with men, women they are not suited to the role because they do not have the necessary skills. The behavioral differences related to gender specific perceptions and preferences could explain the different inclination of men and women toward entrepreneurship. Koellinger et al. (2011) conducted an analysis in 17 countries showing a lower entrepreneurial propensity for women. In addition, the authors provided empirical evidence of gender differences related to self-efficacy and fear of failure.

Literature shows that entrepreneurs are described as aggressive and with high-risk proclivities (Bird and Brush, 2002), as well seem more socially inclined to achieve and obtain economic benefits, an image which does not fit in women (Ahl, 2004; Dileo and Pereiro, 2019), who seem closer to care and the emotional sphere, therefore, in pursuit of social value (Hechevarría et al., 2012; Urbano Pulido et al., 2014).

Additionally, in an analysis aimed to investigate how academics contribute to the perpetuation of stereotypes about female entrepreneurship, Ahl (2004) found that in all the texts reviewed, women entrepreneurs were considered secondary to men. The reasons for this "negative representation" remains the subject of international debate, for which there are no common results.

This stereotyped and male-centered vision discourages some women from participating in business activities, which could also have a consequence on people who interact with women at the community level, creating an additional barrier (Langowitz and Morgan, 2003). The results of the systematic analysis conducted by Sullivan and Meek (2012) suggested that the attributions of society and the different socialization processes relating to men and women may create obstacles for women due to the unequal distribution of assets and services, educational objectives and daily life activity expectations.

According to a study by Guzman and Kacperczyk (2019), females are 63% less likely than males to obtain external financing in terms of risk capital, and the most significant part of the gap derives from differences in gender.

The social construction of the entrepreneur as an independent and stereotyped man calls into question a second theme of analysis that can be limiting for women, namely the responsibility that women seem to have on the family/work issue (Jennings and Brush, 2013; Neneh, 2018). Boz et al. (2016) discovered that women who care most about the family have negative behaviors at work, consequently, the balance between family and work is more difficult for women entrepreneurs, which represents a fundamental obstacle to the growth of their businesses.

Other empirical evidence has shown the opposite. According to Thébaud (2015), work-family conflict can be an important factor that motivates women to start a business. For example, business creation can offer women considerable flexibility in terms of work hours (for example, work only a few hours a week or work at home) allowing them to find a balance between work and family commitments (Kirkwood and Tootell, 2008).

In this sense, the study by Rembulan et al. (2016), which analyzed differences in the work-family conflict between women who work as employees (98 employees) and those who work as entrepreneurs (91 entrepreneurs), showed that most female entrepreneurs have very low conflict in all aspects: time, tension, and behavior; unlike women who work as employees who tend to have higher conflict. One possible explanation may be in the gap of the annual income received. Specifically, the higher the income, the less the stress caused by the work-family conflict.

The literature has paid little attention to the analysis of women's motivations and expectations about entrepreneurship and how it really offers a better "balance" between family and work. McGowan et al. (2012) conducted a qualitative study with

14 women from Northern Ireland while they established and managed their businesses, balancing family needs. The results showed that the motivation to engage in venturing was the desire to balance family responsibilities thanks to the greater flexibility that characterizes this type of work, with the desire to achieve personal independence.

However, entrepreneurship offered a partial answer. In some cases it has acted as a trigger for women to take a positive step they have been contemplating for some time. On the other hand, the negative realities of the company posed serious challenges to these women. For most of them, obtaining and maintaining an adequate balance between the domestic and working spheres of their lives has remained a constant challenge, a source of stress.

In addition, men and women cannot participate in the same entrepreneurial activity due to differences in the access to diverse forms of capital. For example, Johansen (2013) points out as issues the difficulty in obtaining support (institutional, family, and financial), fear of failure, self-assessment of the gender gap, and unfavorable social perceptions. Noguera et al. (2013) highlight fear of failure and self-efficacy as important barriers that hinder the propensity of women to pursue a business career. Other authors have reached similar conclusions in recent years (Wieland et al., 2019).

The results are not uniform, but despite the differences, these studies generally show that women entrepreneurs experience a greater lack of support than men when they try to access business resources (Langowitz and Minniti, 2007). However, the results of a study by Centindamar et al. (2012) on the relative importance of the three types of capital for business: human, family, and financial, underlined that, regardless of sex, these three types of capital influence the likelihood of becoming entrepreneurs. In addition, contrary to expectations, the impact of human capital on the probability of becoming an entrepreneur is greater for women than for men. The data also revealed that family capital facilitates the entry of women into entrepreneurship only in large families. No gender differences were observed with respect to the impact of financial capital.

From this outlined literature, it seems necessary to clarify the existing theoretical concepts to better explain the uniqueness of female entrepreneurship as an independent research topic. Over the years, in fact, the lack of specific research on the phenomenon (De Bruin et al., 2007), and a stereotypically male business model considered as a natural way for doing business (Bruni et al., 2004), caused a delay and underestimation of the study of women in the business process as an important area of research until the late 90's (Jennings and Brush, 2013). As Brush (1992) noted: "Women business owners are similar to males across some basic demographic factors, problems, and business characteristics, but they differ widely from male business owners across individual dimension related to education, work experience, skills, approach to venture creation / acquisition, business goals, problems and performance" (p. 24).

Global statistics also highlight this aspect. Although over the years there has been a significant increase in the number of women who have developed or undertaken an entrepreneurial activity, it will take at least another 108 years to completely close the gender between men and women, and 202 years to

achieve equality between the two genders in the workplace. This is confirmed by the Global Gender Gap Report 2018 published by the World Economic Forum (2018), which taking into account four indicators: economic opportunity, political growth, training, health, and survival, showed in 2018 a 68% gap. The wage gap is almost 51%, and in 2018 women in leadership positions were only 34%. The same is also true for 2020 (Global Gender Gap score stands at 68,6%) (World Economic Forum, 2020).

In addition, according to the Global Entrepreneurship Monitor (GEM) 2018/2019, which provides an overview of the status of female entrepreneurship in 49 countries, Slovenia, Greece, Sweden, Switzerland, United Kingdom, and Turkey are the countries where women startups are less than half of men's. In some countries in Europe and North America, the levels of the TEA (Total Entrepreneurial Activity) rate for women do not reach 5% (Bosma and Kelley, 2019).

In startups around the world the situation is no different. As highlighted by the Startup Outlook 2018 survey, published by Silicon Valley Bank (SVB) (2019), 71% of new American companies do not have women on their board, and 57% do not have the top positions in the so-called C-Suite. Other information obtained from the new companies registered in CrunchBase indirectly confirms the data of the SvB Survey: in 2017, only 17% of the young innovative companies had a female co-founder.

This considered, it seems important to increase the percentage of women in entrepreneurship, an issue that has aroused political interest in recent years by emphasizing the possible economic benefits that could be derived from it (Carter et al., 2015), stating gender equality contributes to economic growth. In fact, the "global gender gap" is at the base of EU policy, as it identifies a clear economic logic to encourage women to become independent entrepreneurs (Carter et al., 2015; Sorgner et al., 2017). Nonetheless, this purely economic emphasis for multiple female entrepreneurs has been defined as an intention to "sell neoliberal values to defenders of gender equality" (Elomäki, 2015). Additionally, according to Boyd (2016), what is missing is a critical counterweight in the public debate: there is no collective questioning among all the actors who work from different fields to understand the gender-related discrimination, something necessary for a truly sustainable development.

This systematic analysis attempts to present an overview of the topic, tracing the current trend of research on women's entrepreneurship, highlighting the future directions of research, with the aim of deepening our understanding of this research branch.

Specifically, this article has two main objectives. The first is to highlight the growth of female entrepreneurship in scientific literature through the chronological distribution of publications and the productivity of authors, journals and countries. The second objective is to track the lines of research most developed and analyzed by the scientific community.

The article is organized in the following manner: first, we discuss the research review approach used in the article and, second, present the results of the analysis performed. Lastly, we present the conclusions that can be drawn from our analysis, the limitations of the study, and indications for future research.

MATERIALS AND METHODS

We carry out this systematic analysis of the literature to contribute to the systematization of scientific production on the relationship between entrepreneurship and women. In this sense, we have used the Scopus database, widely recognized in the scientific community, with more than 27 million abstracts, and is currently considered the largest database of scientific literature (Burnham, 2006).

The selected search terms included the words “entrepren*” and “women,” using the “AND” Boolean connector and including “all fields” as a search field, with no time margins. The bibliographic search ended in December 2019, generating a total of 4,164 documents published between 1950 and 2019.

The final selection of the articles was made using the following inclusion criteria: (i) scientific articles published in peer-reviewed journals, since they are considered valid sources of knowledge (Podsakoff et al., 2005), (ii) written in English. All articles related to the year 2020, articles written in a language other than English, conference presentations, book and thesis chapters, etc. have been removed. Although this may represent a limitation since part of scientific contributions has been excluded, we believe it is an effective way to guarantee the quality of the work thanks to their reliability in the academic world and the rigorous review processes that are usually carried out (Nicholas et al., 2015).

This selection phase narrowed the field, producing the final result of 2,848 scientific articles. To minimize the subjective component and possible attribution errors, we followed the guidelines of the PRISMA method (Liberati et al., 2009; Moher et al., 2009; Urrutia and Bonfill, 2010). This allows replicating the work (Lourenço and Jones, 2006; Pittaway and Cope, 2007), and we used a series of bibliometric indicators to analyze the temporal evolution of scientific production, the most influential authors on the subject, the most productive scientific journals with regards to the number of articles published, and countries with the highest number of scientific contributions. **Figure 1** shows the flow chart of the bibliographic research according to the recommendations of the PRISMA method.

The analysis was carried out using descriptive statistics to describe the general panorama of female entrepreneurship. In addition, VOSviewer software version 1.6.10 (Van Eck and Waltman, 2010, 2014) was used, a bibliometric technique that allows the graphic representation, identification and classification of groups in an associated strategic matrix based on similarities and differences (distance based mapping). Although the qualitative analysis of the literature may be influenced by the subjectivity of the author, this method solves this problem. Using the keywords used by the authors themselves, it allows to reduce the distortion deriving from subjective variables, moreover, the graphic creation of maps allows to examine the deep relationships between the variables, which helps to better understand the nature of a research field, becoming an indisputable analysis tool (Vallaster et al., 2019), currently used (Martínez-López et al., 2018).

Specifically, an citation analysis was conducted to identify great impact of authors and co-citation analysis was conducted in order to measure the similarity between authors, journals and

countries. Keyword co-occurrence analysis was used to analyze the type and strength of the relationship between different fields of science. In **Table 1** we report the first 5 keywords that in our study had greater strength.

RESULTS AND DISCUSSION

Bibliometric Analysis

Figure 2 shows the progress of scientific research on entrepreneurship and women over the years. It is a research field that, although studied for 70 years (the first article dates back to 1950), has developed mainly in recent years, registering a significant increase since 2006 ($n = 61$) and reaching the highest peak of publications in 2019 ($n = 381$). This increase could suggest a change in interest in scientific research and a continuous and growing evolution of research in the field of female entrepreneurship as a valid trend.

To identify the “research front” on female entrepreneurship through temporal overlap, we used the analysis of the co-occurrence of keywords (with a minimum of five keywords).

The “research front” (Price, 1965) is the growing tip of literature and characterize the transient nature of a research field. It is a dynamic analysis, as it is affected by changes in the research area, as well as by the importance, over the years, of a specific research line. The identification of the research front helps scholars to outline the most current trends in literature (Boyack and Klavans, 2010).

As can be seen in **Figure 3**, in recent years there has been a change in interest in the international research. From observing the financing and capitalization of women’s businesses (the keywords in purple: commercial development, financing, economic growth, informal economy), there has been a growing emphasis on more sensitive issues that place the need to study women’s entrepreneurship as a separate field of research, with an emphasis on factors that differentiate them from its male counterpart and that allow overcoming the male-female gap in entrepreneurship (the keywords in yellow: social networks, role models, culture, entrepreneurship education, women empowerment, social entrepreneurship, family support, empowerment, social capital, self-efficacy). In fact, the relative emphasis on education, empowerment, family, social entrepreneurship, culture highlights the effort of researchers in analyzing that set of contextual and socio-psychological factors to allow the desired change.

In the 2,848 articles selected for the bibliometric analysis, a total of 3,903 authors were found, with an average of 1.95 authors per article, which shows that this is a fragmented field of research, probably due to its recent development in the scientific landscape and its multidisciplinary character. The most productive author is Marlow with 18 published articles followed by Ahl ($n = 15$ articles), Kaciak with 13 articles, Welter ($n = 12$ articles), and Orser ($n = 10$ articles).

The **Figure 4**, indicates author co-citation analysis. Out of a total of 68,657 authors in the author co-citation network, 443 researchers met a threshold of at least 45 author co-citations.

The most highly “co-cited authors” about female entrepreneurship are Brush (1,297), Welter (992), Marlow

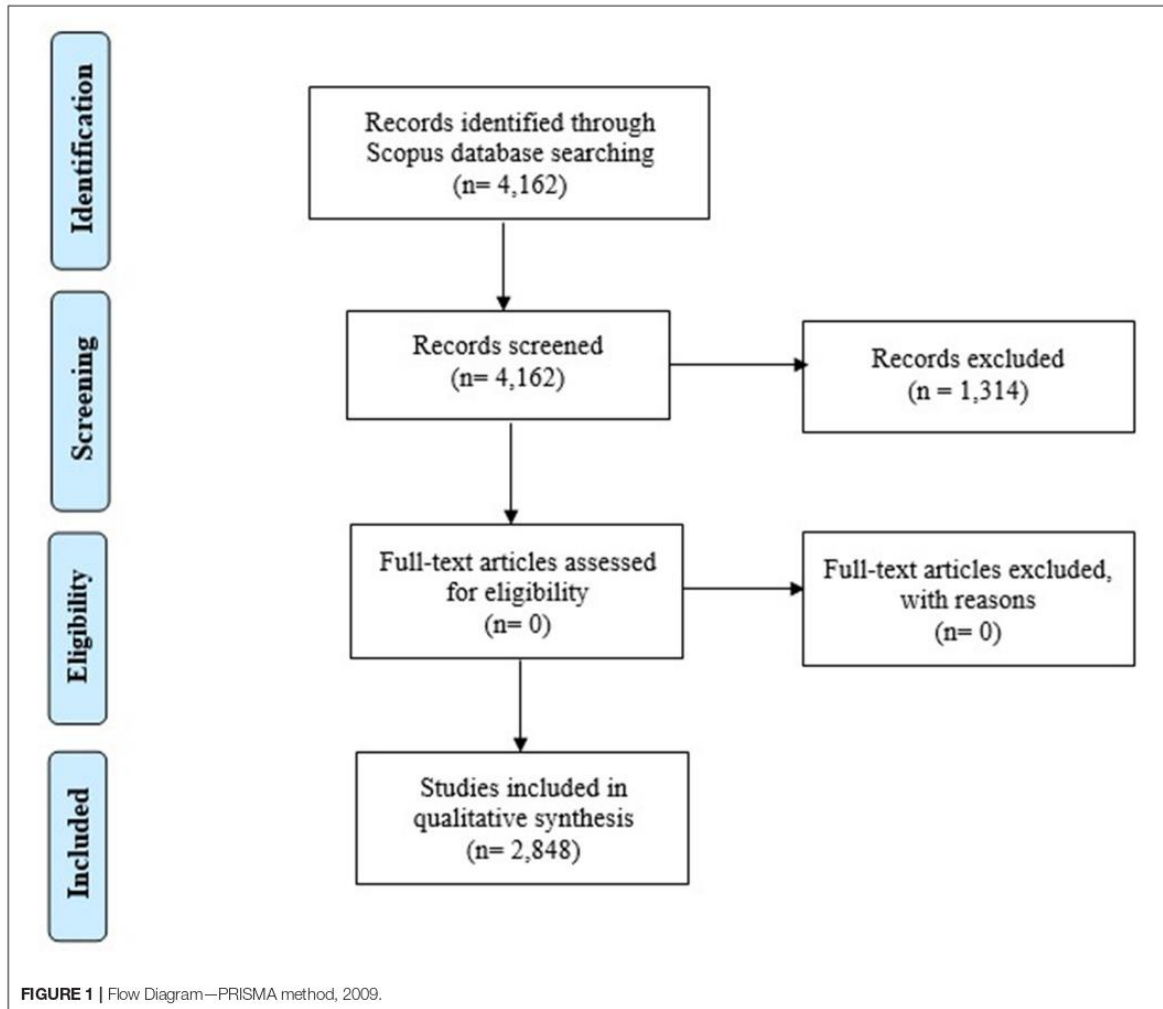


TABLE 1 | Occurrence of most relevant keywords.

Rank	Keywords	Occurrence	Link strength
1	Gender	536	1388
2	Entrepreneurship	535	1203
3	Women	248	951
4	Women Entrepreneurs	172	409
5	Female Entrepreneurship	64	172

Elaborated by the Authors. Source: VOSviewer 1.6.10.

(898), Carter (802), and Ahl (660). It should be noted that their highly cited documents tend to focus on two investigative lines of female entrepreneurship: that relating to the study of economic factors and associated barriers especially in developing countries (red cluster) and that relating to culture, gender roles and

stereotypes (blue cluster). The results seem to suggest that, over the years, the interest of academics who have approached the study of female entrepreneurship has fundamentally concerned the study of barriers (economic, political, social) and the relationship between socio-cultural factors and gender-gap.

In **Figure 5** we present the results of the main scientific journals that have published on female entrepreneurship. We considered the journals with at least 10 published articles, for a result of 28 scientific journals (out of a total of 841 journals). The scientific journals are displayed by circles and labels. The size of the publication circles and the label depends on the total strength of the links of a given publication. To avoid label overlap, some labels may not be visible. The color of an element is determined by the cluster to which the scientific journals belongs. The distance between two journals indicates the strength of their relationship in terms

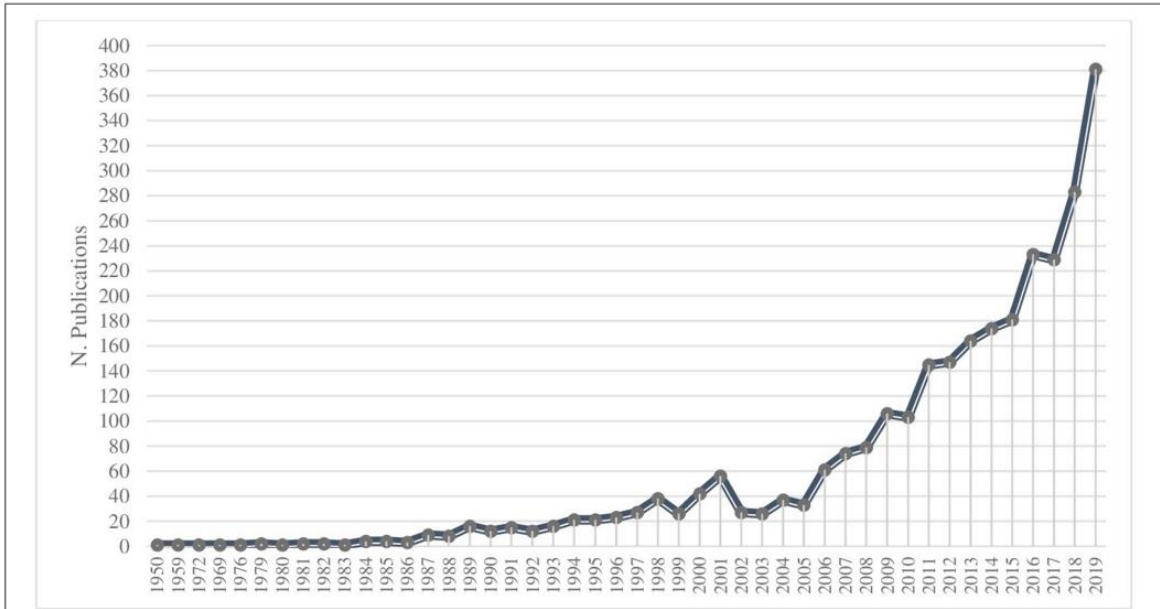


FIGURE 2 | Evaluation of scientific publications per years. Source: Elaborated by the Authors.

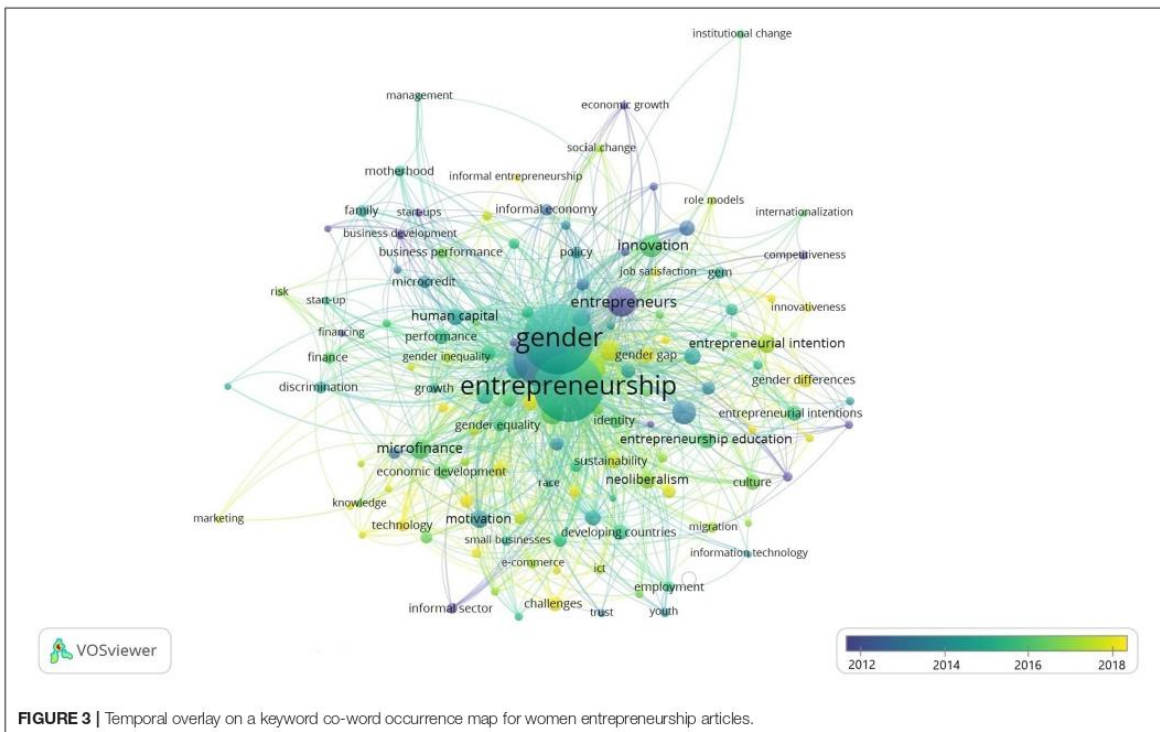


FIGURE 3 | Temporal overlay on a keyword co-word occurrence map for women entrepreneurship articles.

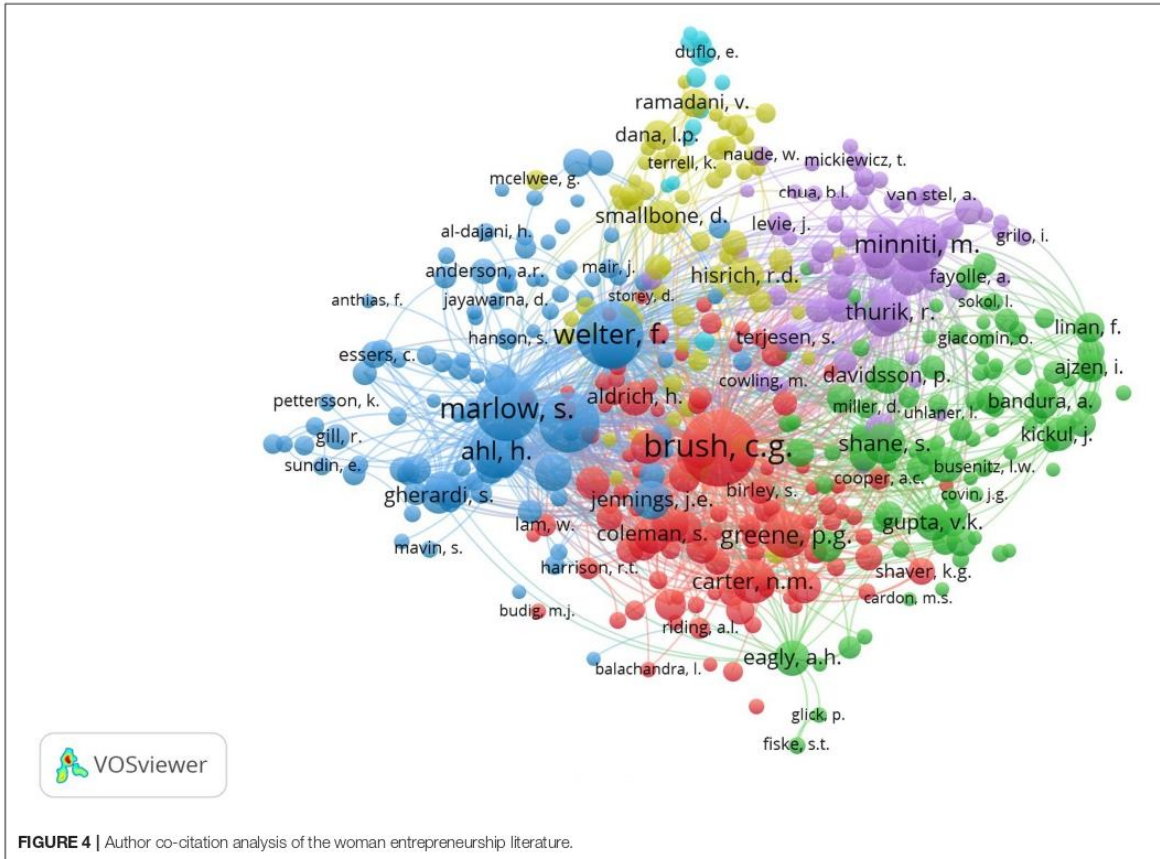


FIGURE 4 | Author co-citation analysis of the woman entrepreneurship literature.

of links to common themes (Van Eck and Waltman, 2010, 2014).

These journals published 900 articles, accounting for 32.6% of the scientific production on female entrepreneurship. In particular, the scientific journals that have most published on the topic of female entrepreneurship have focused on three investigative lines: obstacles to female entrepreneurship (red cluster), the relationship between culture, gender roles and stereotypes (blue cluster) and the role of human and social capital in the growth of female enterprises (green cluster). In addition, the analysis of the research areas further clarifies the nature of the journals, underlining how these investigative lines have been treated from different perspectives (Table 2). The first 28 scientific journals, in fact, cover a differentiated range of topics such as business and management, social sciences and gender studies, human resource management; economics, law, engineering and technological innovation.

This aspect to underlining the multidisciplinary nature of research about female entrepreneurship, also underlines the importance of the topic as a tool to generate value in the international economic market.

With respect to the country with the most scientific contributions, the analysis showed that the United States is the nation with the greatest scientific interest, with 754 published articles, followed by the United Kingdom ($n = 393$), India ($n = 212$), Canada ($n = 180$), and Australia ($n = 115$). These five countries, mainly western countries, account for 1,654 articles (52,6%) of our full corpus of women entrepreneurship articles. Researchers in various Southern European countries (e.g., Spain: 109; Italy: 57; Portugal: 24) have also actively contributed to literature, representing a further 26% of the women entrepreneurship articles. Analyzing further, it was observed that 74% of the documents in the database came from developed companies and only 26% from developing companies (Figure 6). This result, in line with previous systematic reviews (Hallinger and Chatpinyakoo, 2019), creates a strong geographical imbalance and represents a gap in the literature that should be filled.

Topical Clusters of the Women Entrepreneurship

To get an overview of the main lines of research, we employed keyword co-occurrence analysis to reveal key topics within

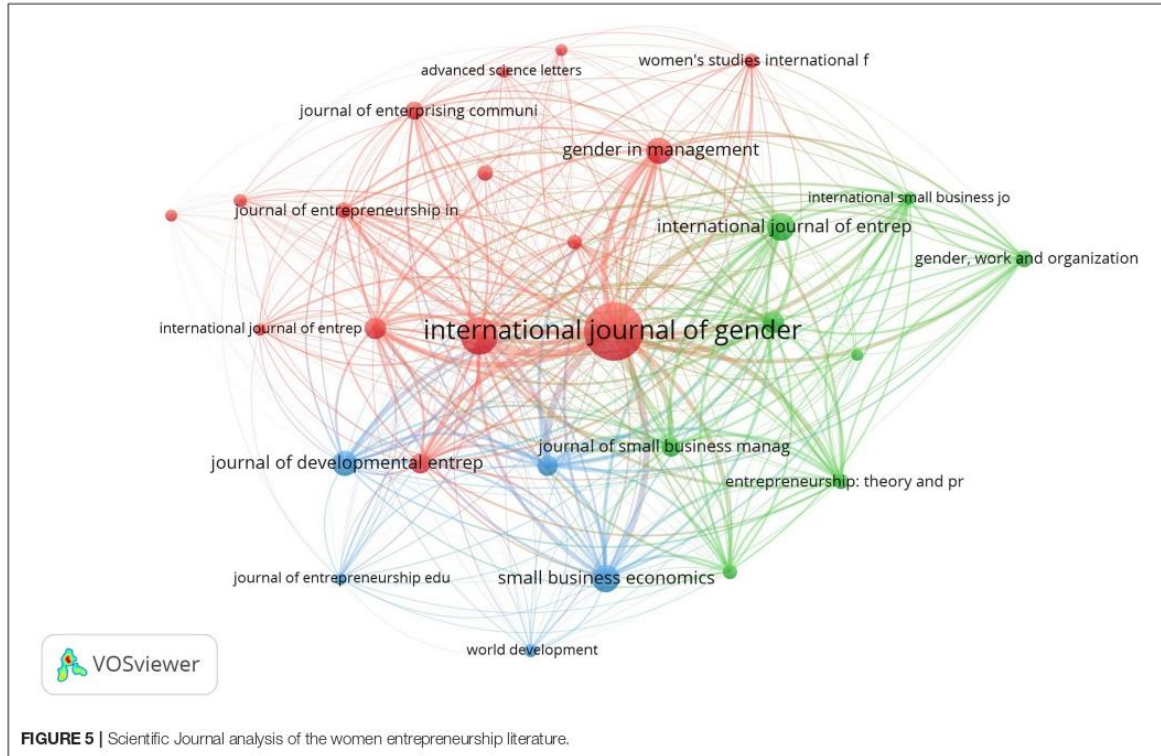


FIGURE 5 | Scientific Journal analysis of the women entrepreneurship literature.

the women entrepreneurship knowledge base (Figure 7). In particular, with a minimum of 10 co-occurrences per keyword and a total of 44 keywords, the topics studied most frequently by women entrepreneurship scholars cohere into six themes. It is important to keep in mind that, according to the analysis performed, the same article can be in different groups if it contains keywords that are part of several groups. The different groups are shown in Table 3.

As emerged from the analysis of “front research,” in the last decade, there has been a change in interest in the international research. From observing the financing and capitalization of women’s businesses, there has been a growing emphasis on more sensitive issues that place the need to study women’s entrepreneurship as a separate field of research (De Carolis et al., 2009; Davis and Shaver, 2012). In this sense, in a study conducted by Dawson and Henley (2015) it was found that the gap between men and women in starting an entrepreneurial career is due to lower risk attitude expressed by women. According to Dawson and Henley (2015), the low rate of women entrepreneurs is associated with a greater fear of failure, little confidence in their skills, and perception of poor support from social networks. In addition, in a systematic analysis by Mishra (2015), the 48 articles analyzed showed that self-confidence, the provision of assistance and institutional support; and the ability to access the credit service and social networks are factors that stimulate female entrepreneurs.

Similar results were found a few years earlier by Alam et al. (2011), who highlighted how personality factors (self-efficacy and risk propensity) and contextual factors (social media and professional) are intertwined. These factors, which are part of a sustainable business, are highly relevant for female entrepreneurs.

In recent years, many researchers have analyzed female entrepreneurship and its associated limitations (cluster 1, in red), especially in developing countries (Gautam and Mishra, 2016; Raghuvanshi et al., 2017). Discussing about emerging economies is extremely important, as the factors behind the low percentage of women in business activities seem to be different in developing economies than in developed economies. One could argue that women in developed countries are more likely to find suitable jobs than women in developing areas, that are also more prone to gender-related discrimination and hostile work environments (Kirby and Ibrahim, 2011; Salamzadeh et al., 2013).

Research shows that in these countries, women entrepreneurs face greater barriers (Panda, 2018; Abou-Moghli and Al-Abdallah, 2019) and that their business ventures efforts are generally discouraged (Kapinga and Montero, 2017).

For example, the systematic analysis conducted by Panda (2018) on 35 articles and 90 developing countries, reveals that the constraints faced by women stem from gender discrimination, conflict between family and work, poor access

TABLE 2 | Scientific journals with the most publications on the subject and Research Area.

R	No. articles	Journals	TC	Research area
1	151	International Journal Gender and Entrepreneurship	1329	Social Science, Gender Studies
2	82	International Journal of Entrepreneurship and Small Business	440	Business. and Manag.
3	53	Small Business Economics	727	Economics
4	48	Journal of Small Business and Entrepreneurship	398	Business and Manag.
5	47	Gender in Management	255	Gender Studies
6	46	International Journal of Entrepreneurial Behavior and Research	667	Business and Manag.
7	41	Entrepreneurship and Regional Development	527	Economics, Finance
8	37	Journal of Developmental Entrepreneurship	286	Business and Manag., Economics
9	36	International Entrepreneurship and Management Journal	290	Business and Manag., Technology Innovation
10	35	Journal of Business Venturing	408	Business and Manag.
11	31	Journal of Small Business and Enterprise Development	398	Business and Manag.
12	30	Entrepreneurship Theory and Practice	781	Business and Manag.
13	29	Journal of Small Business Management	293	Business and Manag.
14	26	Gender Work and Organization	246	Social Science, Human Resource Management
15	23	Journal of International Women's Studies	35	Social Science
16	21	Journal of Enterprising Communities	96	Business, Economics
17	19	Women's Studies International Forum	133	Social Science, Law
18	17	World Development	255	Political Science
19	15	Accademy of International Journal	13	Economics
20	15	Journal of Entrepreneurship in Emerging Economies	106	Business and Manag.
21	15	Mediterranean Journal of Social Science	31	Humanities Science
22	13	Equality Diversity and Inclusion	139	Gender Studies
23	13	International Journal of Entrepreneurship	21	Business, Social Science
24	13	Journal of Entrepreneurship Education	22	Social Science, Education
25	12	International Small Business Journal: Researching Entrepreneurship	182	Business and Manag.
26	11	Advanced Science Letters	0	Environmental Science, Health
27	11	International Journal of Innovative Technology and Exploring Engineering	1	Engineering
28	10	International Journal of Recent Technology and Engineering	0	Manag. of Technology Innovation, Engineering

R, Rank; TC, Total Citation. Source: Elaborated by the Authors.

to resources, lack of training and personality differences. Specifically, they are wary of risks and suffer from isolation in their entrepreneurial path, show a lack of self-confidence and an excess of insecurity.

Raghuvanshi et al. (2017), analyzed the different barriers that female entrepreneurs face, which can be summarized as follows: lack of education, experience and training opportunities; limited spatial mobility; lack of support from families; lack of institutional support; and problem in the acquisition of financial resources. Mirghafoori et al. (2010) in his study mentioned a series of obstacles faced by women entrepreneurs in Iran that result from the lack of confidence of financial institutions toward women.

According to Okoye (2013), although in Nigeria the main need for the emancipation of women is access to financing, other problems come into play, such as the high failure rate of political support programs. Santoni and Barth (2014) concluded that the barriers faced by female entrepreneurs in developing countries are inherent due to poor access to financing and lack of institutional support. These conclusions have also been shared

in the past by other studies en Irán (Galard, 2005; Sarfaraz and Faghih, 2011).

In a study conducted by Yogendrarajah and Semasinghe (2015), on a group of women from Sri Lanka, the two authors found a statistically significant relationship between the development of entrepreneurship and the microcredit program. Helping women entrepreneurs to have better access to credit means increasing their awareness in terms of risk management and self-efficacy, contributing to the family economy, improving their quality of life and, not least, reduce gender disparities.

Studies that have focused on human and social capital (cluster 2, in green) can be included in this scenario. Human and social capital resources are the key to help entrepreneurs, especially in the initial phase of their business (Brush et al., 2002). Studies in this sector have shown that high levels of human capital are positively related to the performance and management of a company (Millán et al., 2014).

The results of a study by Klyver and Schenkel (2013), based on GEM data in 41 countries, revealed that human capital is positively associated with nascent entrepreneurship and also has a positive impact on both, objective elements such as starting

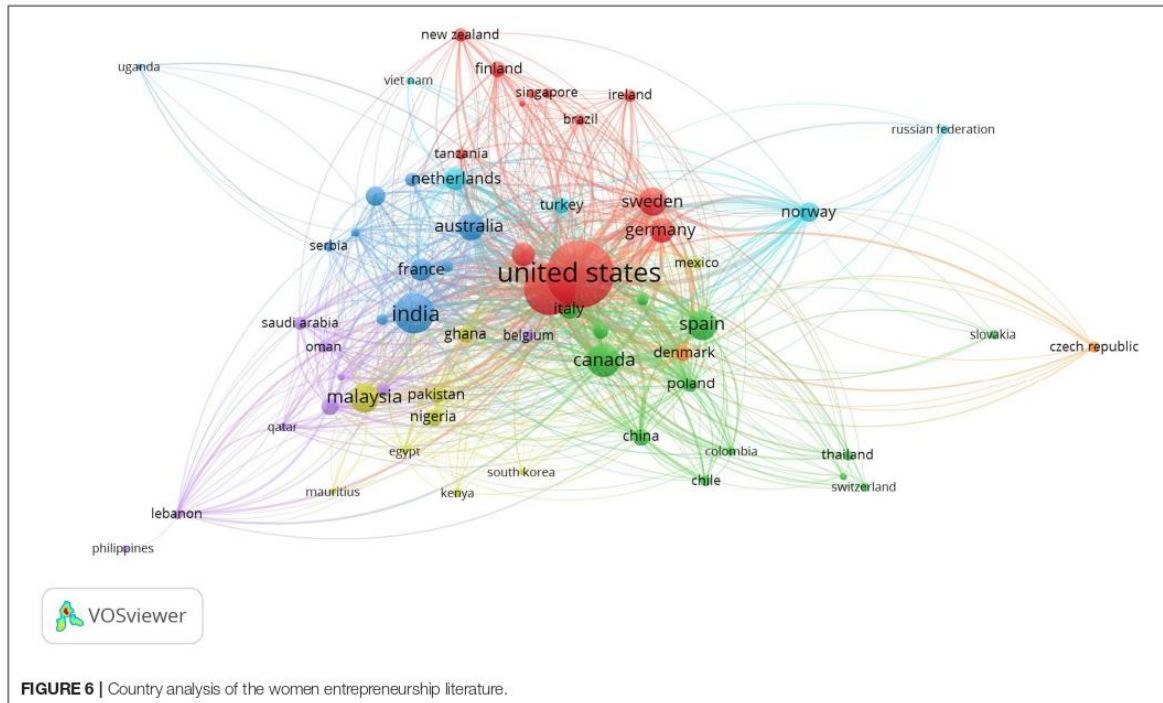


FIGURE 6 | Country analysis of the women entrepreneurship literature.

a business, and subjective elements such as self-perception and self-efficacy.

Studies like Aldrich and Cliff (2003) and Kirkwood (2007) have also shown that social capital is one of the biggest supporting factors for female entrepreneurship. An analysis by Ventura Fernández and Quero Gervilla (2013) shows, for example, that the existence of links with support agencies influences women’s self-efficacy levels and, therefore, their intention to undertake in business activities. According to Álvarez et al. (2012), in addition to the important role of formal social capital (policy support, financing and training), it is especially the “informal capital” (family, emotional support, social network) that has the greatest impact.

However, while the relationship between these types of intangible resources and women’s businesses has been widely documented in developed countries, there is limited research in emerging economies. From our analysis, we found a study that considered the impact of human, social and reputational capital on women’s businesses in Ghana. The results showed the positive impact of the three types of capital on corporate growth, but, to a greater extent, they highlighted the importance of women’s social networks for the growth of their businesses, and to further improve the value of their intangible skills (Sallah and Caesar, 2020).

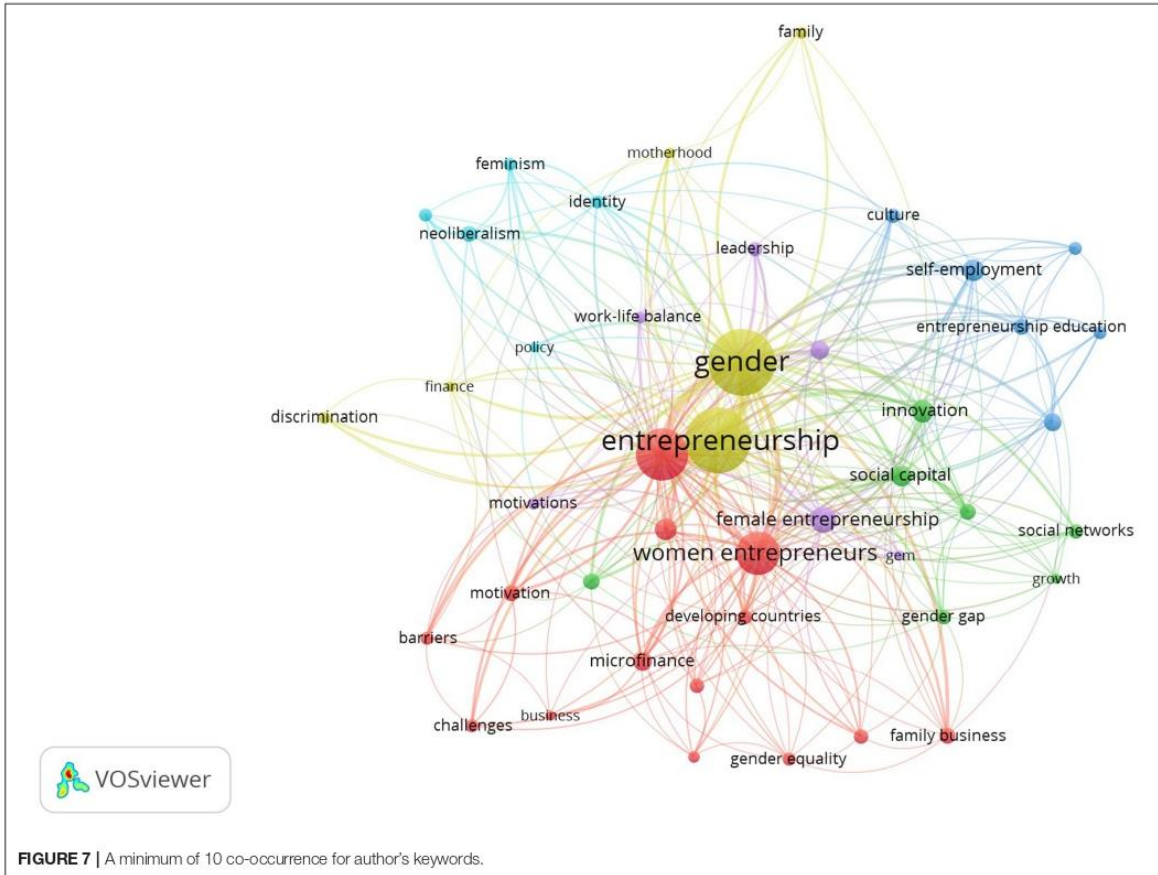
The third theme (blue cluster) analyzes the complex relationship between culture and gender differences (Eden and Gupta, 2017), considering female entrepreneurship a result of

contextual and psychological factors that differentiate it from its male counterpart.

Culture greatly influences the way in which entrepreneurs develop their business initiatives, referring to prejudices, social roles and a stereotyped vision of the gender (for example, women are seen as incompatible with the business because it is too emotional and less rational in making decisions) that contribute to a men-centred vision of entrepreneurship (Shinnar et al., 2012; Rubio-Bañón and Esteban-Lloret, 2016). This is reflected in Hoyt and Murphy (2016) conclusion that the prejudices women face in business are the result of gender stereotypes.

These factors related to a country’s different perceptions of the role of women in society, explain that the differences concern attitudes toward entrepreneurship, but also some psychological traits that influence entrepreneurial intention: higher levels of self-efficacy, self-confidence, independence, risk appetite, and autonomy in men compared to women (Langowitz and Minniti, 2007; Robb and Watson, 2012).

In addition, women compared to the male counterpart, to a greater extent reject the choice of an entrepreneurial career because they consider themselves as lacking in entrepreneurial skills and knowledge (Wilson et al., 2007; Kirkwood, 2009) and unable to respond to the challenges of a company as it is not very socialized in corporate roles (Yordanova and Tarrazon, 2010). Ultimately, what these studies show is an issue of how gender roles could influence the types of career deemed acceptable for women, further increasing gender differences (Griffiths et al., 2013; Kalafatoglu and Mendoza, 2017).



As the cluster analysis shows, entrepreneurial education is closely linked to culture and gender differences, which is considered a potential tool for increasing entrepreneurial intentions, bridging the gap between men and women. This occurs both in the consolidation phase of the company and in the start-up phase (Mazzarol et al., 1999; Rotefoss and Kolvereid, 2005). A country that promotes entrepreneurial educational initiatives, encourages women's participation in entrepreneurship and reduces the woman-man gap (Petridou et al., 2009).

Mand et al. (2018) showed that education influences the entrepreneurship levels of Indian women even in a stereotypically masculine sector such as electronics.

Other empirical evidence has highlighted the importance of entrepreneurial education in analyzing the mediating role of self-efficacy. For example, studies have shown that entrepreneurial education has a greater impact on the development of entrepreneurial self-efficacy (Wilson et al., 2007; Centindamar et al., 2012). Others have shown that high levels of entrepreneurial self-efficacy is related to a higher probability of developing a business activity (Krueger et al., 2000;

De Clercq and Arenius, 2006). Wilson et al. (2007) analyzed the role of mediating self-efficacy on the relationship between gender and entrepreneurial intention of students and adults in adulthood. In both cases, entrepreneurial self-efficacy partially mediated this relationship.

Along these factors, the literature analysis has also allowed us to identify the role of the surrounding environment, focusing mainly on the family (Cluster 4, in yellow). Our analysis showed the crucial and positive role of family members, especially when external support systems are limited (Chang et al., 2009, 2012), both as a source of economic support, especially at the start of a business (Shen et al., 2017; Cardella et al., 2020), and on the motherhood issue (Jennings and McDougald, 2007), providing moral and psychological support to women who have to reconcile family responsibilities with the desire for professional development.

A field of study in which the gap between men and women seems to be significantly reduced is that related to social entrepreneurship (cluster 5, in purple). It is an extremely recent field of research (the first article dates from 2009), and as

TABLE 3 | Different clusters of scientific literature.

Cluster	Keywords	Article (out of 2,848)	Example of Article
1. Barriers to women entrepreneurship 14 items	Barriers, Business, Challenges, Developing Countries, Economic Development, Empowerment, Family Business, Gender Equality, Microcredit, Microfinance, Motivation, Performance, Women, Women Entrepreneurs	627	Al-Shami, S. S. A., Muhamad, M. R., Majid, I., and Rashid, N. (2019). Women's entrepreneurs' micro and small business performance: insights from Malaysian microcredit. <i>Intern. J. Entrepreneurship Small Business</i> 38, 312–338.
2. The role of Human and Social Capital in the growth of women enterprises 7 items	Gender Gap, Growth, Human Capital, Innovation, Small Business, Social Capital, Social Networks	394	Brush, C., Ali, A., Kelley, D., and Greene, P. (2017). The influence of human capital factors and context on women's entrepreneurship: which matters more? <i>J. Business Venturing Insights</i> 8, 105–113.
3. Culture and gender difference 6 items	Culture, Entrepreneurial Intention, Entrepreneurship Education, Gender Differences, Self-Efficacy, Self-Employment	429	Stedham, Y., and Wieland, A. (2017). Culture, benevolent and hostile sexism, and entrepreneurial intentions. <i>Intern. J. Entrepreneurial Behav. Res.</i> 23, 673–687.
4. Family support and maternity management 6 items	Discrimination, Entrepreneurship, Family, Finance, Gender, Motherhood	974	Jaafar, M., Othman, R., and Hidzir, N. I. (2015). The role of family on gender development of women construction entrepreneurs. <i>Adv. Environ. Biol.</i> , 9, 120–123.
5. Linking social entrepreneurship and women empowerment 6 items	Female Entrepreneurship, GEM, Leadership, Motivations, Social Entrepreneurship, Work-Life Balance	374	Alexandre-Leclair, L. (2017). Social entrepreneurship and social innovation as a tool of women social inclusion and sustainable heritage preservation: the case of the Sougha Establishment in UAE. <i>Intern. J. Entrepreneurship Small Business</i> 31, 345–362.
6. A feminist point of view 5 items	Feminism, Identity, Neoliberalism, Policy, Postfeminism	312	Berglund, K., Ahl, H., Pettersson, K., and Tillmar, M. (2018). Women's entrepreneurship, neoliberalism and economic justice in the postfeminist era: a discourse analysis of policy change in Sweden. <i>Gender Work Organ.</i> 25, 531–556.

Source: Elaborated by the Authors.

expected, according to our analysis it is one of the clusters with the least number of publications.

In general, women seem motivated toward social goals, unlike men whose attitudes push toward more economic and material issues (Dorado and Ventresca, 2013). As the literature shows (Themudo, 2009; Hechevarría et al., 2012) social enterprises are more suited to the social role of women.

For example, Van Ryzin et al. (2009) suggests that women are more likely to be social entrepreneurs than men, since this type of company seems to share their objectives, more oriented to the attention and support of the community. In addition, according to Teasdale et al. (2011), more than 90% of women occupy management positions in voluntary organizations or the third sector. This is reflected in Kuschel and Lepeley (2016) stating that women entrepreneurs in the technology industry tend to start businesses with romantic partners, in a process of co-preneurship.

These results are in line with more recent studies that have demonstrated the importance of social entrepreneurship, especially for women who undertake in a poorly developed country (Kyalo and Kiganane, 2014; Nicolás and Rubio, 2016).

Women are motivated to choose an entrepreneurial career for different reasons than men. In general, men appreciate good pay, job security and promotion opportunities, while women prefer opportunities to use their initiative and flexible hours (Zou,

2015). The greater motivational desire among women to achieve a better balance between work and family life, leaving aside the desire for economic wealth (Thébaud, 2015), could explain the importance of social entrepreneurship as a possible career option.

For example, Muntean and Ozkazanc-Pan (2016) suggested that social enterprises can help foster reconciliation policies, such as flexible time or parental leave, which act as a motivating factor, encouraging women's career advancement.

In summary, research suggests that the intrinsic characteristics of social entrepreneurship (e.g., collaboration and mutual assistance) may be more suited to women's needs, their way of working (high quality relationships) and respect for women's priorities (like reconciliation and equal opportunities).

Additionally, as Rembulan et al. (2016) have shown, women entrepreneurs, compared to women who work as employees, have very low levels of conflict regarding time management and family care.

Lastly, cluster 6 (in light blue) includes feminist theories that attempt to explain gender discrimination in entrepreneurship as a result of stereotypes and prejudices, which deserves a discussion of its own. The articles have revealed a shift in a focus from liberal feminism, centered on a collectivist conception of women and inspired by gender equality as a political factor, to liberal post-feminism, which uses more individualistic and identity-focused vision, in which single women must compete in the

national market and contribute to the economic growth of the country through self-employment (Berglund et al., 2018). In particular, the liberal feminist theory (Fischer et al., 1993), analyzed supports the need for social reform to give women the same opportunities that are reserved for men (for example, access to resources and social networks, education, previous experience in business). Liberal post-feminism, instead, takes into account many different views of the world. These differences do not imply that women are less effective in business than men, but only that they could adopt different approaches that could be as effective as the more traditional approaches adopted by men (Watson and Robinson, 2003). The problem would lie in the lack of acceptance by the social network and community, however, despite the great efforts made in this regard, both views have significant shortcomings. For example, no perspective considers the different cultural values that can convey different attitudes, expectations, and behaviors not only between men and women, but also between different nations.

Although it is widely accepted that entrepreneurship gives additional value to the economy of a nation and a shift in business, the understanding between entrepreneurship and development is still far from complete (Kelley et al., 2017). Recognizing, therefore, the factors and peculiarities that also influence the field of female entrepreneurship seems a challenge and a call to which the entire community is expected to answer at different levels. This could help academics and policy makers gain useful knowledge and facilitate the conditions of women in business. Parallel to what was stated in Holmquist and Sundin (2002), beyond the different points of view, it would be desirable to consider the issue from a holistic perspective, focusing on the strengths of each one for a vision as unitary and convincing as possible in the analysis of female entrepreneurship.

CONCLUSIONS

The objective of this systematic analysis was to investigate the scientific literature on the relationship between entrepreneurship and women. To this end, we analyzed a total of 2,848 articles selected from the Scopus database (Scimago Research Group). Based on the results obtained, some conclusions can be drawn.

As the analysis shows, it is a relatively current area of research (the first article was published in 1950) which over the years has shown constant interest from academics, with a greater development of articles in the last 20 years.

Furthermore, it is a research field that shows a multidisciplinary character that mainly affects the area of business and management, but also social and gender studies, Economics, Political Sciences, Technology and Innovation.

In addition, in the last decade, "front research" has shown a change of interest in the scientific community, moving from the study of economic and political issues to the analysis of the useful factors that allow to bridge the male-female gap.

In general, it was possible to isolate 6 research line that characterize the current field. The topic that has received the most attention from academics and, therefore, a greater number of studies is related to the importance of the family as

support for women entrepreneurs, particularly with regard to maternity management (cluster 4), closely related to cluster 1 that highlights the barriers that characterizes women's access to the entrepreneurial sector.

On the other hand, the group that according to our analysis has the least number of articles published relates to feminist theories (cluster 6), followed by cluster 5, about to the relationship between social entrepreneurship and female entrepreneurship. The latter could be explained probably because it is an extremely recent research field (the first article dates from 2009), but in constant evolution. As noted in recent studies, social entrepreneurship is a very interesting field of analysis, since the gap between women and men is greatly reduced because the roles and stereotypes that influence women's behavior lead to identify better with the values present in social enterprises (Nicolás and Rubio, 2016).

Although this work covers a large number of publications, some limitations must be pointed out. First, it may be important to use other databases to expand the body of literature and highlight the differences and similarities with the analysis presented by us. It may also be of interest to use different bibliometric indicators to continue studying the research fields.

For this study, we used cluster analysis to delineate the boundaries of scientific literature through VosViewer 1.6.10 software. It is a tool that, although it has received a broad consensus from researchers (Martínez-López et al., 2018), presents some limitations, since it provides a limited number of relationships that, based on similarities and co-occurrence techniques, only take into account the frequency of the keywords considered. This could represent a limitation if the search field is excessively fragmented. For example, a total of 4,455 keywords emerged from our analysis, and the field was reduced to 44 keywords, establishing a co-occurrence of 10. This indicates that it is an extremely varied field of study in which academics have adopted different points of view.

From this study, some suggestions for future research can also be outlined.

First, the vast majority of women's business studies have been carried out in western and developed countries. It would be appropriate for academics to deepen this issue in developing areas in order to test the theories already used, analyze the dynamics that are created in these different geographical areas, as well shed light on the social and cultural challenges women face in these contexts. Additionally, this aspect was also recently confirmed by Rashid and Ratten (2020), who in their systematic review of female entrepreneurship in emerging economies, found only a total of 76 published articles.

Future studies should also reflect on the fact that more and more women participate in the growth of their businesses, going beyond the initial phase, which concerns simple entrepreneurial intention. The articles that are part of this systematic analysis did not take into account the difference between intention and behavior. It would be advisable to focus more on this difference, emphasizing whether women who are in a later stage face the same specific challenges as in the early stages. Entrepreneurship is more than the simple act of starting a business, since it also represents the will and desire to manage an existing company (see

the case of family businesses). Therefore, it would be desirable, especially with reference to women, to reflect on the barriers they face to grow their businesses, in terms of work/family balance issues, choice of professional sector and identification of opportunities and development of human and social capital. In this sense, a great importance for women derives not only from access to financial resources, but also from intangible resources (human and social capital) that constitute the key to business success in general, and specifically in women. Studies in this area, however, seem limited. A careful reflection on women entrepreneurs, both in developed and developing economies, could help to better understand how to exploit these resources.

Furthermore, it could be a further reason for reflection, analyzing the problem of immigrant women entrepreneurs, the motivations that push them to start entrepreneurial activities, the social consequences of their entrepreneurial behavior and how the whole process is conditioned by their belonging to the female gender.

From a purely methodological point of view, we expect the use of diversified, quantitative, qualitative or mixed approaches, since this may offer greater potential to analyze different nuances and peculiarities that may be important to deepen on the female issues in entrepreneurship. Similarly, the increasing availability of large data sets allows us to understand possible disadvantages among different groups of female entrepreneurs (Fairlie and Robb, 2008). The comparisons between different female groups in social, cultural and socio-family abstractions, with difficult access to human and intangible resources and financial resources, remain important fields of analysis and exploration.

Finally, there is a need for greater efforts by academics to critically reflect and strengthen current theories on entrepreneurship, which should be useful for the development of more solidified theories that take into account culture and institutional practices and how they relate with gender issues (Wilson and Tagg, 2010).

We believe that the results of this systematic analysis are a starting point for contributing to an ever clearer systematization of the scientific literature, which, given the very varied nature of the research topic, has some limits which are not always easy to define. In our analysis, we have adopted a holistic point of view to give voice to the different theoretical contributions that have tried to explain the many facets of the research lines. The synthesis of topics of recent interest among scholars has produced numerous topical clusters and a change of interest, over the years, from a study aimed at economic issues to an analysis that deepens the factors that contribute to reducing woman-man gap.

We interpret it in the sense that scholars have started to take an interest in female entrepreneurship as an independent construct and not simply as a counterpart to the male one, applying already existing models concerning male entrepreneurship. This also represents a useful starting point for political systems and further strengthens our conclusions.

In light of the results found in our study, we can affirm that the work done gives us the opportunity to have a broader vision of gender and women's entrepreneurship, not only

considering the motivations, objectives, measures of success and the different contexts, in which their ventures are managed and developed, but also taking into account the heterogeneity of female entrepreneurs in general.

The researchers recognize that women's entrepreneurship is very varied and rich in nuances, hence the commitment that must exist in researchers to commit to this complexity and, at the same time, strength. Women entrepreneurs are not a homogeneous group, and therefore we must recognize gender identities, which are rarely considered in the entrepreneurship literature. This is especially important when it comes to, for example, programs and policies to support female entrepreneurship. We cannot do "one size fits all" training. In other words, female entrepreneurs are not minors, subordinates, they simply do entrepreneurship differently and in this process make significant and valuable contributions to the global economy. A better understanding of this diversity of female entrepreneurship will surely contribute new ideas for research on entrepreneurship in general.

Our research also opens up new questions that will need to be addressed in future research. For example: (a) How do different contexts (organizational, family environments, high technology, etc.) and cultural environments impact on women's business management? How do women entrepreneurs undertake in such contexts? (b) How can theories outside of entrepreneurship/small business fields shed light on women's entrepreneurship and its management strategies? (c) How should women's entrepreneurship best be conceptualized to better understand the diversity, strategic management and growth dimensions of business creation? With new theoretical and methodological approaches and perspectives, we can address these questions.

DATA AVAILABILITY STATEMENT

All datasets generated for this study are included in the article/supplementary material.

AUTHOR CONTRIBUTIONS

All three authors participated in the analysis and drafting of this document. Specifically, GC has selected and analyzed all the articles present in Scopus. BH-S provided interesting details on the subject. JS-G examined the methodology used and the final draft of the document. The authors decided to approve the final work and take full responsibility for the originality of the research.

FUNDING

This research was funded by the Board of Education of the Junta de Castilla y León (ref J424), Spain.

ACKNOWLEDGMENTS

We thank the Chair of Entrepreneurs University of Salamanca for supporting the research.

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Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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4.3 Publicación III: La investigación sobre el emprendimiento social: estructuras intelectuales y perspectivas de futuro



Cardella G. M., Hernández Sánchez, R. B., Monteiro, A. A., & Sánchez García, J. C. (2021). Social Entrepreneurship Research: Intellectual Structures and Future Perspectives. *Sustainability*, 13, 7532. <https://doi.org/10.3390/su13147532>.

Resumen

El emprendimiento social es un campo de investigación emergente que ha recibido mucha atención académica en los últimos años. Dado el alcance global de este enfoque, esta revisión explora la literatura científica existente para contribuir a una sistematización del campo de investigación. Se analizaron un total de 1.425 artículos científicos de las publicaciones recopiladas a través de las bases de datos Web of Science y Scopus. La búsqueda bibliográfica finalizó en enero de 2021. En la primera fase, se introdujo el término de búsqueda “Social Entrepren*”, limitando la búsqueda a “títulos, resúmenes y/o palabras clave”. Los artículos publicados en 2021 se excluyeron de manera que el análisis se centrara en años naturales completos.

En la segunda fase, para reducir el riesgo de incluir falsos positivos sin ningún valor complementario al conjunto de datos construido, se realizaron más investigaciones de acuerdo con las pautas del método PRISMA (Liberati et al., 2009; Moher et al., 2009; Urrútia y Bonfill, 2010) y se acordaron los siguientes criterios de inclusión: (i) artículos científicos publicados en revistas revisadas por pares (ii) donde los estudios sobre emprendimiento social podrían demostrarse mediante la inclusión de palabras en los títulos, resúmenes y/o palabras clave del autor, (iii) artículos escritos en inglés y (iv) publicados hasta el año 2020.

El análisis se realizó utilizando el método bibliométrico (por ejemplo, evolución por años, autores, revistas científicas y países que tuvieron mayor impacto en términos de producción), análisis de citación y co-citación y análisis de co-ocurrencia de palabras clave para describir la evolución de la investigación en el emprendimiento social.

Los resultados muestran que la evolución temporal en cuanto al número de publicaciones y citas se caracteriza por un ritmo lento pero constante, que, especialmente

en la segunda década de los 2000, ha recibido la atención de los investigadores. De hecho, se publicaron 1.245 artículos científicos entre 2012 y 2020, lo que representa el 87% del total de publicaciones.

Además, como muestra el análisis de citación, la investigación en el emprendimiento social destaca por su alta calidad (por ejemplo, de las 15 revistas científicas, 13 están ubicadas en un ranking Q1 o Q2) y por una colaboración entre autores (con una media de dos autores por artículo), lo cual es indicativo de la importancia que la comunidad científica concede a este campo de investigación.

El análisis de los artículos más citados mostró por un lado un fuerte predominio de estudiosos de la sociedad occidental (aproximadamente el 88% de los artículos eran de países desarrollados), y por otro lado una escasa presencia de estudios cuantitativos.

Contrariamente a revisiones recientes e importantes sobre el tema (ej., Gupta et al., 2020; Hota et al., 2020), este estudio consideró el emprendimiento social como un concepto de clúster (en línea con las sugerencias de Choi y Majumdar, 2014), analizando también los subtemas que constituyen el punto de referencia para el estudio del emprendimiento social (es decir, la estructura intelectual o "escuelas de pensamiento" que caracterizan el campo de estudio). Por ello, junto con el análisis de citación, se consideró oportuno realizar el análisis de co-citación del autor (ACA).

Específicamente, los resultados del análisis de co-citación del autor (ACA) indicaron tres "escuelas de pensamiento" (figura 4 del artículo); una está relacionado con el emprendimiento comercial y la sostenibilidad (clúster verde). Esta escuela puede considerarse un punto de partida para la investigación del emprendimiento social. En el primer caso, tomando prestados algunos modelos de emprendimiento comercial y en el segundo caso considerando los objetivos del emprendimiento sostenible como estrechamente relacionados con los del emprendimiento social.

Las otras dos "escuelas de pensamiento" se vinculan más específicamente a los temas del emprendimiento social: definición y marco teórico (clúster azul) e innovación social (clúster rojo), que se configuran como elementos que distinguen el emprendimiento social de otras formas de emprendimiento. Estos resultados muestran la necesidad de considerar el emprendimiento social como un concepto de clúster ya que cubre temas relacionados con otros campos de investigación como el emprendimiento comercial y sostenible, pero

también temas que atañen específicamente a la dimensión social del emprendimiento como la innovación.

Además, se utilizó el método de mapeo de la red de superposición a través del análisis de co-ocurrencia de palabras clave para detectar temas de investigación relevantes (*research front*) a lo largo de los años (figura 6 del artículo).

Específicamente, hay tres etapas de desarrollo de la investigación sobre emprendimiento social. En el primer período (2014-2016) la literatura se basó en las convergencias/divergencias entre el emprendimiento comercial y social, con énfasis en las organizaciones sin fines de lucro y el tercer sector. Esta es una etapa de suma importancia porque constituye la base teórica para el desarrollo del emprendimiento social como campo de investigación independiente. En la segunda fase (2016-2018), el concepto de hibridación cambió el foco de atención de la comunidad científica. Este cambio ha llevado a la proliferación de organizaciones híbridas y al surgimiento del emprendimiento sostenible, considerado como un subtema en el estudio del emprendimiento social.

Finalmente, en la tercera fase (2018-2020), la investigación pasó al análisis de los factores que apoyan el desarrollo de la intención emprendedora social. De los documentos que forman parte de la base de datos, surgió que la investigación se centró en el estudio de los rasgos de personalidad (con referencia a las Cinco Grandes Dimensiones), pero también en factores psicológicos como la autoeficacia, la resiliencia, la obligación moral, la empatía y la motivación prosocial.

Además, los artículos que han analizado los factores que apoyan el desarrollo de la intención emprendedora social se han centrado especialmente en la educación, las redes sociales, la cultura y el género. Entre ellos, el género fue el que recibió especial atención. En general, existe un desequilibrio entre hombres y mujeres en la elección de una carrera emprendedora, con primacía de los hombres; los estudios realizados sobre el emprendimiento social han demostrado que esta brecha se reduce significativamente, lo que justifica aún más la importancia de analizar esta forma de emprendimiento para reducir los prejuicios y las desigualdades (Van Ryzin et al., 2009; Alexandre-Leclair, 2017; Cardella et al., 2020).

Palabras Clave: Emprendimiento social; Revisión de mapas científicos; Innovación social; Educación emprendedora; Emprendimiento sostenible; Emprendimiento comercial.



Review

Social Entrepreneurship Research: Intellectual Structures and Future Perspectives

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Abstract: Social entrepreneurship (SE) is an emerging research field that has received much scholarly attention in recent years. Given the global scope of this attention, this review explores the existing scientific literature on social entrepreneurship to contribute to a systematization of the research field. Based on the publications in Web of Science and Scopus, a total of 1425 scientific articles were analyzed. We used the bibliometric method to describe the evolution of social entrepreneurship research (e.g., evaluation by years, authors, scientific journal articles, and countries in the SE literature that have had the greatest impact in terms of production). In addition, we used the mapping of knowledge networks through the citations and co-citations analysis to identify schools of thought. A keyword co-occurrence analysis was performed to detect key research topics over the years. The results show that, although the research is still in a nascent phase, it has a multidisciplinary character. Furthermore, social entrepreneurship appears to be a concept closely linked to three schools of thought: commercial entrepreneurship, sustainable entrepreneurship, and social innovation. The keywords analysis allowed us to isolate the constructs that the literature has considered antecedents (e.g., socio-psychological factors) and accelerators (e.g., education, network, culture, and gender) to the development of social entrepreneurial intention. We will further discuss the ways researchers can explore this research field and contribute to the global literature.

Keywords: social entrepreneurship; scientific mapping review; social innovation; social entrepreneurship education; sustainable entrepreneurship; commercial entrepreneurship



Citation: Cardella, G.M.; Hernández-Sánchez, B.R.; Monteiro, A.A.; Sánchez-García, J.C. Social Entrepreneurship Research: Intellectual Structures and Future Perspectives. *Sustainability* **2021**, *13*, 7532. <https://doi.org/10.3390/su13147532>

Academic Editors: Ricardo Rodrigues, Oyvind Kyvik, Carla Martínez-Climent and Teresa Felício

Received: 11 May 2021

Accepted: 3 July 2021

Published: 6 July 2021

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1. Introduction

This article deals with the issue of social entrepreneurship (SE), the study of entrepreneurial initiatives aimed at exploiting opportunities to generate social value [1–3]. In the practice, there is a growing diffusion of forms of social entrepreneurship, both in the non-profit sector, in which innovative approaches tend to spread that allow the generation of revenues, allowing the sustainability and development of individual initiatives, and in for-profit organizations that identify and pursue business opportunities aimed at jointly generating economic value for shareholders and social value. This has aroused the interest of scholars from various disciplines, who have tried to define the boundaries and distinctive characteristics of social entrepreneurship and to understand its determinants, success factors, and criticalities.

Social entrepreneurship is an emerging but rapidly growing field [4,5] involving diverse sectors such as innovation, technology, public policy, community development, social movements, and non-profit organizations [6]. The main objectives of social entrepreneurship are the reduction of poverty and illiteracy, the improvement of collective well-being and the quality of life of the community, the overcoming of social injustice, the conservation of the environment for future generations [7–10].

Several authors agree that the SE literature is still in an early stage of development [2,11,12]. This is evidenced by the fact that a universal definition has not yet been reached [3,13], partly as a consequence of the definition difficulties that characterize the more general field of entrepreneurship studies, and in part for the heterogeneity of the contributions that have addressed the issue from different points of view, often focusing on single specific areas.

In general, social entrepreneurship can be considered as a form of social change by means of innovative ideas or actions to achieve social objectives and create new value [14–16] through an organization that is financially independent and self-sufficient [17,18].

Despite this growing interest from the scientific community, analysis of the state of SE literature has shown that scholars struggle to determine a coherent and non-fragmented theoretical framework [19,20], due to uncertainty and confusion about who a social entrepreneur is and what he/she does. This justifies the need for this study.

This article uses the scientific mapping review methodology [21,22] to analyze the intellectual structure of the SE knowledge base.

Specifically, the review addresses the following research questions:

RQ1: What are the main growth trends in SE research?

RQ2: Which authors, scientific journal articles, and countries in the SE literature have had the greatest impact in terms of production and citations?

RQ3: What is the intellectual structure of the knowledge base on social entrepreneurship?

RQ4: Which research topics in the SE literature have been studied most frequently and are currently attracting the greatest attention?

Through these research questions, this review aims to guide researchers who are new to the social entrepreneurship field, but also to lay some foundations for future research.

2. Literature Review

Social entrepreneurship scholars have adopted different approaches to define the construct. However, a common element to many of the definitions in the literature is the creation of social value [1,2,19,23–26] or social wealth [3].

More generally, it can be said that in all the definitions analyzed, there is an explicit reference to the social dimension expressed through the creation of social value or to the pursuit of a social objective or mission [27] or the impact of social entrepreneurship in terms of social benefits [28], mitigation or solution of social problems [29], satisfaction of social needs [30], social justice [11] or social change [31–33].

For example, Dees [1], considers the social entrepreneur as a change agent who works through a mission to create social value and the search for new opportunities to achieve that mission. Where others see problems, social entrepreneurs see opportunities. The will to innovate is part of the entrepreneurs' modus operandi, and it should not be understood as a sudden explosion of creativity, but as a continuous process of exploration and learning. Furthermore, entrepreneurs tend to have a high tolerance for ambiguity and learn to manage the risks associated with it. They see failure as a learning opportunity and act responsibly, using scarce resources efficiently, calculating risks so as to reduce the harm that will result from failure.

This is an idealized definition, generally, the more an individual meets these requirements, the more he or she will be considered a social entrepreneur. As Dess [1] argues, in reality, many social entrepreneurs present these characteristics in different ways and to different degrees, and very few fit exactly this definition of social entrepreneur.

When systematizing the numerous contributions that characterize social entrepreneurship, in general, two lines of research distinguish the field in the literature. Indeed, many authors have limited the scope of social entrepreneurship to the non-profit sector [34], a sector on which the studies had initially focused, through the analysis of the differences between social enterprises and commercial enterprises. Other authors, especially recently, have extended the scope of social entrepreneurship to include hybrid organizations that combine economic and social goals [12,35,36], generating social change through sustainable

business models. In this context, the concept of social innovation becomes central as a balance between social entrepreneurship and other forms of entrepreneurship.

According to Christopoulos and Vogl [37], while commercial entrepreneurs approach the problem from a purely economic point of view, social entrepreneurs are motivated by social needs. Of the same opinion is Olsen [38], according to whom the social entrepreneur uses the same tools that are usually used in the traditional sector, but applies them to solve social problems.

Austin et al. [8] used four variables to compare social and commercial entrepreneurship, trying to establish differences. The first variable used is market failure, which is a situation that describes an inefficient distribution of goods and services in the free market. In this sense, a problem for the commercial entrepreneur becomes an opportunity for the social entrepreneur. The second variable is the mission defined as the values and visions that guide the entrepreneur. In principle, the basic purpose of social entrepreneurship is the creation of social value for public welfare, while the entrepreneur seeks the creation of profitable operations that result, in the first instance, in private profitability for the shareholders.

A third variable is resource mobilization, which refers to the set of activities put in place to ensure new and additional resources for the organization. On the one hand, “the nondistributive restriction on surpluses generated by nonprofit organizations and the embedded social purpose of for-profit or hybrid forms of social enterprise limits social entrepreneurs from tapping into the same capital markets as commercial entrepreneurs” [8] (p. 371). Finally, the fourth variable is defined as performance measurement, a process by which an organization monitors important aspects of its systems. Data are collected to reflect how its processes work, and this information is used to guide the organization’s decisions over time. This represents a limitation for social enterprises, which, unlike commercial enterprises, encounter great difficulties in evaluating performance due to the impossibility of measuring the social impact [23].

Weerawardena and Sullivan Mort [39] described opportunity identification as a separate activity in which social entrepreneurs actively seek opportunities to create social value. According to their study, the process of identification of opportunities and evaluation is simultaneously influenced by the social mission and by organizational and environmental sustainability. Regarding the sources of identification of opportunities, Thompson et al. [40] found that opportunities could arise from an individual’s vision or necessity.

Grayson and Hodges [41] coined the term “corporate social opportunity” to designate these opportunities, which correspond to the possibility of combining the creation of economic value for the company with a benefit for society. The authors defined these opportunities as “commercially viable activities which also advance environmental and social sustainability” [41] (p. 11). These activities with economic and socio-environmental significance typically involve some form of innovation.

From this perspective, the social component of entrepreneurship consists of the ability to identify innovative solutions for specific social problems. Therefore, innovation is another key element of social entrepreneurs because it involves novelty for a relevant company in society [42], and it is what has distinguished social entrepreneurship from other forms of entrepreneurship, especially in recent years.

Bloom and Chatterji [29], for example, explicitly identified social entrepreneurs as individuals who seek to solve or mitigate a social problem by developing change strategies that differ from those that have been used to address the problem in the past. The distinction with respect to other initiatives with social purposes lies in the innovativeness of the solutions adopted, which—by definition—can correspond to very different organizational forms, corporate forms, management practices, and business models: hence the considerable heterogeneity of social entrepreneurship initiatives and the difficulty of describing its boundaries.

This approach reflects that of several works on entrepreneurship that attribute a central role to innovation and interpret entrepreneurship as the ability to recombine resources

in an innovative way. Furthermore, similar to what has been found with regard to entrepreneurship in general, the definition of social entrepreneurship often emphasizes the change generated by the innovative action of the entrepreneur.

The Organization for Economic Cooperation and Development (OECD) [43] defined entrepreneurs as agents of change in growth in a market economy; similarly, some authors have identified social entrepreneurs as agents of change in the social sector [1,24].

Social entrepreneurship is explicitly indicated in several contributions as a harbinger of social transformations [11,31,32]. In this regard, Martin and Osberg [25] underlined the ability of social entrepreneurs to identify stable equilibrium situations characterized by social inequity and to change them, generating a new equilibrium that corresponds to better conditions for a group of people. These authors therefore recognized a role of creative destruction for social entrepreneurship, which involves changing the status quo and redefining social balances, as in the Schumpeterian vision the innovation brought by the entrepreneur undermines the market rents.

Furthermore, the definition of Martin and Osberg [25] emphasized how the new equilibrium generated for the benefit of one group can be extended to others as a result of imitation.

This is an interesting aspect because, even if the actual impact dimension of social entrepreneurship is still to be evaluated, we note how it can be linked to two aspects: the direct effect, i.e., the immediate change generated by the business social entrepreneur; the indirect effect related to the attention that this activity arouses toward specific social problems and toward innovative ways to deal with them [31].

This emphasis on the extent of the effects that can be generated by social entrepreneurship and on the supremacy of this form of social change corresponds to that which, with prevalent regard to environmental sustainability issues, Hall et al. [44] defined as a “panacea hypothesis”, i.e., the idea that through entrepreneurship it is possible to reach a solution to the problems of society. At present, however, this actually turns out to be just a hypothesis, yet to be adequately tested and against which, as mentioned above, important questions also arise about the direction of social change and the values that guide it.

Despite the differences that characterize the different approaches, the authors who are engaged in the study of social entrepreneurship have highlighted common themes that need to be taken into consideration. Social entrepreneurship combines the passion of a social mission with the entrepreneurial approach [45]. Social entrepreneurship uses the principles of entrepreneurship to organize, create, and manage a business to bring about social change. They are change agents with a problem-solving mission. The social mission is the core of what distinguishes social entrepreneurs from classical entrepreneurs [1]. Social entrepreneurs are like entrepreneurs only they are driven by social improvement and not by profits [42].

To overcome the problem of a universal definition, we accepted the suggestion of Choi and Majumdar [46], namely, of considering social entrepreneurship as a concept of cluster, formed by sub-concepts: creation of value by the social entrepreneur, SE organization, and social innovation.

According to Choi and Majumdar [46], this would help overcome the different perspectives present in the literature in two ways. First, it would force researchers to explicitly state which of the sub-concepts they emphasize in their understanding of the concept. Second, conceptualizing social entrepreneurship as a cluster concept could serve as a broad research agenda for the field of social entrepreneurship and, at the same time, help organize and locate existing work within the field.

In this context, social value is configured as the search for social progress, removing the barriers that make inclusion difficult and helping those who are temporarily weakened. Contrary to what happens with the economic value in which the consumer is captured autonomously by beneficiaries and remunerated with his or her own resources in a commercial exchange, in this case the social entrepreneur helps the beneficiary to obtain a value which, for different reasons, would have been out of reach [47].

This definition not only allows us to understand why social enterprises are primarily responsible for generating social value, but also underscores why academics refer to social entrepreneurship as creating positive social change, regardless of the structures or processes through which is implemented [48].

3. Materials and Methods

This analysis was conducted with the aim of contributing to the systematization of intellectual structure in the field of social entrepreneurship research, and to answer the four research questions explained in the introduction. In this sense, the objectives can be summarized in two fundamental points: identifying the evolution of the object of study as well as emerging developments, and secondly, creating food for thought for future investigation.

Scopus and Web of Science databases were used to search for scientific articles. They are two widely known databases in the literature that index 22,878 peer-reviewed journals, which is why they are currently considered the largest and most important multidisciplinary bibliometric databases [49]. The literature search ended in January 2021 and generated a total of 4752 documents.

In the first phase, we introduced the search term “Social Entrepren*”, limiting the search to “titles, abstracts and/or keywords”. Articles published in 2021 were excluded to focus the analysis on full calendar years.

In the second phase, to reduce the risk of including false positives with no complementary value to the constructed data set, further investigations were conducted and inclusion criteria agreed upon. The inclusion criteria were: (i) scientific articles published in peer-reviewed journals, including articles in print, as scientifically valid sources of knowledge [50] (ii) where it was possible to demonstrate studies on social entrepreneurship through the inclusion of the words in the titles, abstracts, and/or author keywords, (iii) written in English, and (iv) published through the year 2020 (Table 1).

Table 1. Research Strategy.

Database Searching	Scopus (SCImago Group) and Web of Science
Search Word	“Social Entrepren*”
Category	Title, Abstract and Keywords
Subject Area	All
Document Type	Articles and Reviews
Source Type	Peer-reviewed Journal
Language	English
Year	Until year 2020
Search Date	January 2021

* is a symbol that is used in literature reviews to include, for example, all articles related to “social Entrepreneurship”, but also “social entrepreneur”.

From the analysis, therefore, chapters of books, books, conference proceedings, notes, etc., written in a language other than English, in which it was not possible to demonstrate an investigation into entrepreneurship in the social field, were eliminated.

The authors read the abstracts, and when it was not possible to isolate the inclusion criteria from the abstract, the entire article was read. This selection phase produced the final result of 1425 scientific articles.

To minimize the subjective component, possible attribution risks, or bias errors, and to be able to replicate the study, the guidelines of the PRISMA method were used [51–53] (Figure 1).

The 1425 articles identified were exported to a .csv file. This file included author names, years of publication, titles, affiliations, author keywords, abstracts, citations, and references. Additionally, another copy of the file was saved in Excel for use in descriptive data analysis.

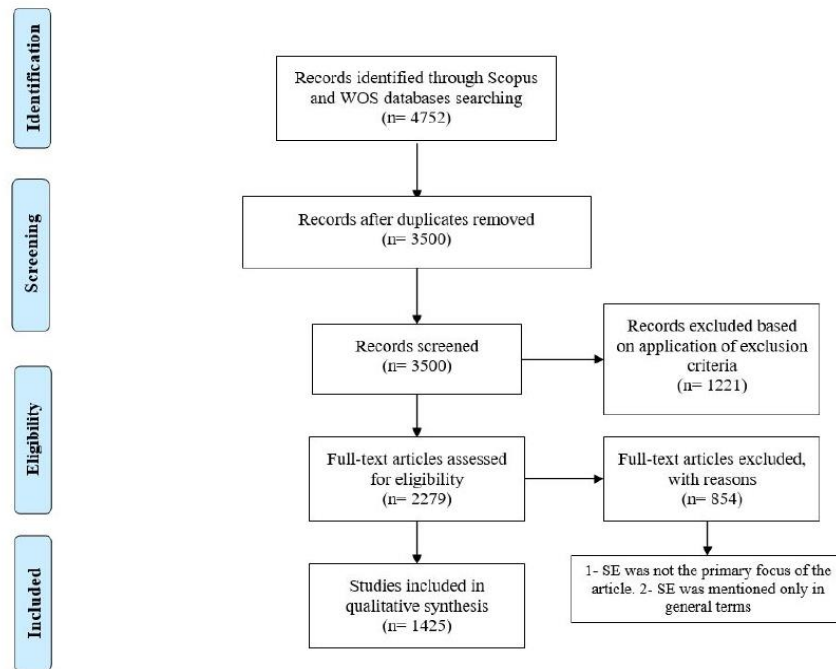


Figure 1. Flow Diagram—PRISMA, 2009.

Descriptive statistics were created to describe the landscape of the social entrepreneurship knowledge corpus. VOSviewer software 1.6.10 [54,55] was used to analyze the citation patterns, intellectual structure, and research front in the social entrepreneurship literature. It is a statistical tool that, unlike the qualitative method, allows the subjective component of the authors to be kept under control, which is why it is increasingly used in entrepreneurial review [56,57].

Specifically, citation analysis (e.g., total citations, citations per document) was conducted to identify high-impact journals, documents, and authors. Author co-citation analysis (ACA) and keyword co-occurrence analysis [21] were used to identify the most prevalent “schools of thought” and the emerging topics within the social entrepreneurship knowledge base.

It should be emphasized that, unlike the co-citation analysis in which the SE knowledge base is deduced from the relationships among the authors (authors who are frequently co-cited are considered to share a conceptual perspective), keyword analysis uses highly frequent terms extracted from the articles to identify the most developed topical themes [22]. In this review we visualized the results of keyword analysis in a temporal display that highlights the topics of current interest among scholars in the field and allows comparisons between different years, which is what Price [58] defined the “scientific research front”.

4. Results

Figure 2 shows the evolution of the number of publications and citations from 1978 to 2020. It is an extremely current research field characterized by a very slow but constant trend, which has increasingly captured the attention of scholars, as demonstrated by the increase in the number of publications, especially in the second decade of the 2000s, as well as the high number of citations that characterize the scholarship on social entrepreneurship. From 2012 to 2020, 1245 scientific articles were published, representing 87% of the total publications.

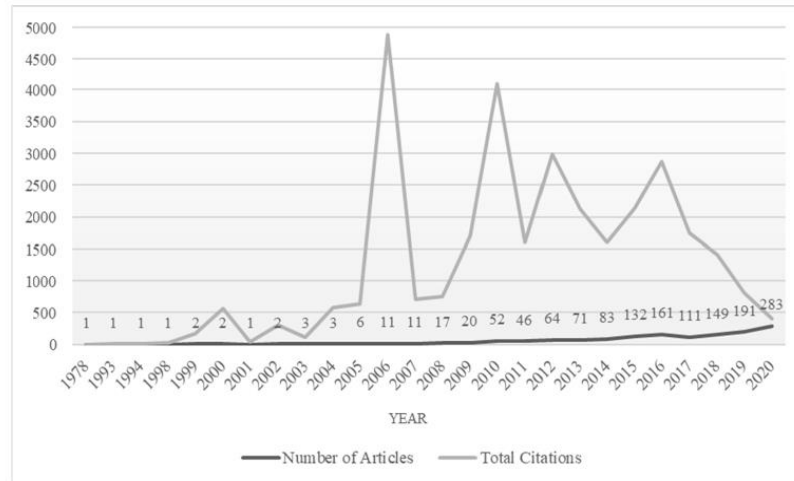


Figure 2. Evaluation of Scopus scientific publications and citations on “Social Entrepreneurship” by years.

These results justify the topicality of the research, an extremely current field that, over the years, has increasingly received the attention of the scientific community.

Although the contributions on social entrepreneurship came from researchers located in 98 different countries, there was a significant geographical imbalance in this knowledge base (Figure 3). In fact, half of the social entrepreneurship studies (51%) came from scholars from the United States ($n = 361$), United Kingdom ($n = 177$), Spain ($n = 82$), Canada ($n = 77$), and Australia ($n = 75$).

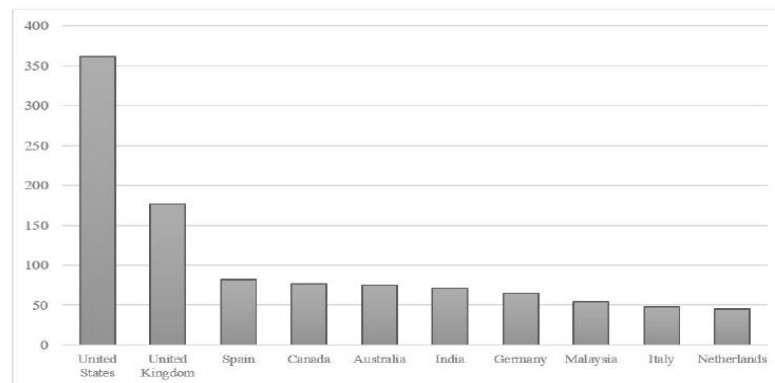


Figure 3. Most productive countries.

European countries such as Germany ($n = 65$), Italy ($n = 48$), and the Netherlands ($n = 45$) have actively contributed to this literature, representing a further 17% of current knowledge. In general, the more in-depth analysis made it possible to observe that of the 1425 articles published on social entrepreneurship, 88% came from developed countries and only 12% from developing countries. This is a gap that should not be overlooked, especially given the potential positive impact that social entrepreneurship activities have in these contexts where problems are more likely to be solved by initiatives promoted by citizens [59].

In this context, India deserves to be mentioned, which with 71 articles was the only country among emerging economies to be in the top ten countries with greater scientific production. This was positive result considering that 22% of India’s population is still below the poverty line [60].

The 1425 articles that make up the knowledge base on social entrepreneurship were published in 536 different scientific journals. This result indicated the multidisciplinary nature of social entrepreneurship, also confirmed by the analysis of the different research areas.

Specifically, the journals that exceeded the minimum threshold of 15 articles (Table 2) represented 30% of the total articles. The list of remaining journals appeared to be more distributed. This indicated that social entrepreneurship is a very broad field of study affecting different areas, which are analyzed from different perspectives. This result, however, was in line with the distribution of the research areas, where it was noted that the categories that were most used in the study of social entrepreneurship mainly referred to the area of Business and Management and Economics. The more in-depth analysis indicated that in recent years the object of study has also started to receive attention from other research sectors, such as social science (education), environmental science and sustainability, engineering, psychology, law.

Table 2. Scientific journals with the most publications and research areas.

R	N. Articles	Journal	Citations	Quartile	Research Area
1	123	<i>J. Social Entrepreneurship</i>	1888	Q2	Bus. and Manag., Social Science
2	35	<i>J. Bus. Ethics</i>	2060	Q1	Bus. and Manag., Law
3	33	<i>Sustainability</i>	178	Q1	Environm. Sc., Social Sc.
4	30	<i>Voluntas</i>	435	Q1	Manag., Political Sc.
5	27	<i>Entrepreneurship Reg. Dev.</i>	1205	Q1	Bus. and Manag., Economics
6	25	<i>Soc. Enterprise J.</i>	93	N/A	Business, Social Sc.
7	23	<i>Int. J. Entrepreneurship Small Bus.</i>	178	Q2	Bus. and Manag., Economics
8	18	<i>Entrep. Theory Pract.</i>	4028	Q1	Bus. and Manag., Economics
9	17	<i>Emerald Emerg. Mark. Case Stud.</i>	5	Q3	Bus. and Manag., Economics, Social Sc.
10	17	<i>J. Bus. Res.</i>	546	Q1	Business and Management
11	16	<i>J. Enterprising Communities</i>	270	Q2	Bus. and Manag., Economics
12	16	<i>Entrepreneurship Res. J.</i>	157	Q2	Business and Management
13	15	<i>J. Bus. Ventur.</i>	1775	Q1	Business and Management
14	15	<i>Int. J. Entrepreneurial Behav. Res.</i>	364	Q1	Business and Management
15	15	<i>J. Clean. Prod.</i>	331	Q1	Business and Management

These data underline the emerging multidisciplinary nature of the scholarship on social entrepreneurship, which in any case remains historically linked to the field of business economics [61].

Furthermore, the most productive scientific journals were characterized by high quality. Of the 15 selected journals, 13 scientific journals were placed in Q1 or Q2, thus underlining the quality that distinguishes this research topic.

One journal (*Social Enterprise Journal*) was, however, not ranked because it started to be indexed and covered by the Scopus Index in 2018.

The analysis of the journal quartile rankings as a proxy for research quality suggested that the most cited publications on social entrepreneurship were featured in Q1 and Q2 journals.

The analysis showed a total of 2909 authors, with an average of two authors for each article, more than half of the articles ($n = 794$) were written by one or maximum two authors, which was indicative of the fact that this research field is characterized by discrete collaborations, probably due to the recent interest and development of social entrepreneurship. Furthermore, it was also a very fragmented research field: 23 authors exceeded the minimum threshold of five published articles (Table 3), representing 30% of the scholarship on social entrepreneurship.

Table 3. Authors with the most publications.

R	N. Articles	Authors	Citations	Cit. per Documents	Affiliation
1	12	Bacq, S.	588	49.0	Kelley School of Business
2	9	Chandra, Y.	75	8.3	Hong Kong Polytechnic University
3	8	Renko, M.	311	38.8	DePaul University
4	7	Halberstadt, J.	71	10.1	Hochschule Vechta
5	7	Shaw, E.	523	74.7	University of Strathclyde
6	6	Dey, P.	297	49.5	Grenoble Ecole de Management
7	6	Kraus, S.	138	23.0	Durham University Business School
8	6	Lehner, O.M.	338	56.3	University of Oxford
9	6	Liang, C.	60	10.0	National Taiwan University
10	6	Mair, J.	2212	368.6	Stanford University
11	6	Pathak, S.	96	16.0	Xavier University
12	6	Sergi, B.S.	111	18.5	Harvard University
13	5	Caldwell, K.	67	13.4	University of Illinois
14	5	De Bruin, A.	110	22.0	Massey University Auckland
15	5	Kwong, C.	30	6.0	University of Essex
16	5	Mcmullen, J.S.	534	106.8	Kelley School of Business
17	5	Mehta, K.	38	7.6	Lehigh University
18	5	Muralidharan, E.	97	19.4	MacEwan University
19	5	Newbert, S.L.	109	21.8	Baruch College
20	5	Smith, B.R.	287	57.4	Miami University
21	5	Ratten, V.	92	18.4	La Trobe University
22	5	Toledano, N.	88	17.6	Universidad de Huelva
23	5	Trivedi, C.	101	20.1	University of Cambridge

The cross-analysis between the number of articles and the total number of citations showed that the most cited author was Mair, J. (2212). All the other authors showed a total of more contained citations, probably a result indicative of the emerging character of social entrepreneurship as a basis for scientific knowledge.

Analysis of influential documents in the knowledge base on social entrepreneurship also revealed a dominance of scholars from Western societies. More specifically, the most cited documents in Table 4 came from the US, Canada, and Europe. Among the top 20 most cited documents, no documents came from developing countries.

Table 4. High-impact scientific articles.

R	Articles	Citations	Country ¹	Research Method	Topical Focus
1	Austin, Stevenson and Wei-Skillern (2006)	1446	USA	Review	Comparison between SE and Commercial Entrepreneurship
2	Mair and Marti (2006)	1414	Spain	Review	SE Definition (sociology and organizational theory)
3	Zahra et al. (2009)	969	USA	Conceptual	SE definition and ethical concerns
4	Peredo and McLean (2006)	706	Canada	Review	SE definition
5	Dacin, Dacin and Matear (2010)	638	Canada	Review	Comparison of SE to other forms
6	Alvord, Brown and Letts (2004)	570	USA	Qualitative	Case Studies of SE
7	Dacin, Dacin and Tracey (2011)	526	Canada	Review	SE, Social Innovation and nonprofit management
8	Weerawardena and Sullivan Mort (2006)	521	Singapore	Qualitative	Nonprofit Sector
9	Seelos and Mair (2005)	478	Norway	Conceptual	SE and sustainable development
10	Santos (2012)	474	France	Review	SE Theories
11	Defourny and Nyssens (2010)	457	Belgium	Conceptual	Social Enterprise (US and European comparative perspective)
12	Di Domenico, Haugh and Tracey (2010)	436	UK	Qualitative	Social Enterprise (bricolage)
13	Nicholls (2010)	408	UK	Conceptual	SE and neo-institutional theory

Table 4. Cont.

R	Articles	Citations	Country ¹	Research Method	Topical Focus
14	Miller et al. (2012)	377	USA	Conceptual	SE Model
15	Thompson, Alvy and Lees (2000)	337	UK	Conceptual	Private Sector SE
16	Shaw and Carter (2007)	321	UK	Qualitative	Comparisons between “for-profit” and nonprofit sector
17	Thompson (2002)	302	UK	Conceptual	Case Study SE
18	Bacq and Janssen (2011)	299	USA	Review	SE definition and its conceptualization across geographies
19	Sharir and Lerner (2006)	269	Israel	Qualitative	Factor success of Social Enterprise
20	Hwee Nga and Shamuganathan (2010)	240	Malaysia	Quantitative	Social Entrepren. Intention

¹ In the case of authors from multiple countries, only first author’s country was considered.

The majority of highly cited documents on social entrepreneurship (Table 4) included conceptual ($n = 6$), but also qualitative (5) and review (5) method research. This series of influential papers focused on the definition and development of social entrepreneurship models [2,19,62] and on differentiating from concepts closely related to commercial entrepreneurship [8,63].

As for qualitative studies, they mainly used case studies, analyzing successful social enterprises and examples of social innovation (e.g., not-for-profit organizations and the creation of new organizational forms of social entrepreneurship). A qualitative study, on the other hand, applied the current bricolage theories in entrepreneurial studies with the aim of perfecting the framework of social entrepreneurship [64].

The results seemed to suggest that the knowledge base of social entrepreneurship is still in an early stage, where the most influential articles still focus on basic concepts and test the theoretical relationships between these key constructs, in an attempt to differentiate social entrepreneurship from the commercial one and to trace a specific theoretical framework of reference.

4.1. Intellectual Structure of the Social Entrepreneurship Knowledge Base

To answer the third research question, that is, to analyze the “intellectual structure” of social entrepreneurship research, author co-citation analysis (ACA) was carried out.

The intellectual structure refers to the different “schools of thought” that characterize the research topic, i.e., the main lines of investigation that define the field of study.

Co-citation analysis examined the frequency with which pairs of authors were cited together in the reference lists of the 1425 articles in the review database. Therefore, the co-citation analysis analyzed a much broader literature than the direct citation analysis. By examining the frequency of “co-citations of authors”, the VOSviewer software was able to produce a network map that “visualizes the similarities” between the authors cited in our SE database [22].

Figure 4 shows the co-citation network for the selected articles. Articles that had at least 105 co-citation links were considered cited references. It turned out that of the 51,586 cited references identified by VOSviewer, 150 authors met this selection criterion. The most highly co-cited authors in the social entrepreneurship literature were Mair (1773), Dees (1127), Marti (882), Nicholls (861), and Tracey (715).

Publications are displayed by circles and labels. Their size depends on the total strength of the links between the different authors. The color of an element was determined by the cluster to which it belongs, which distinguishes the different schools of thought in the literature on social entrepreneurship. The distance between two elements indicates the strength of their relationship in terms of similarity, i.e., links of common citations.

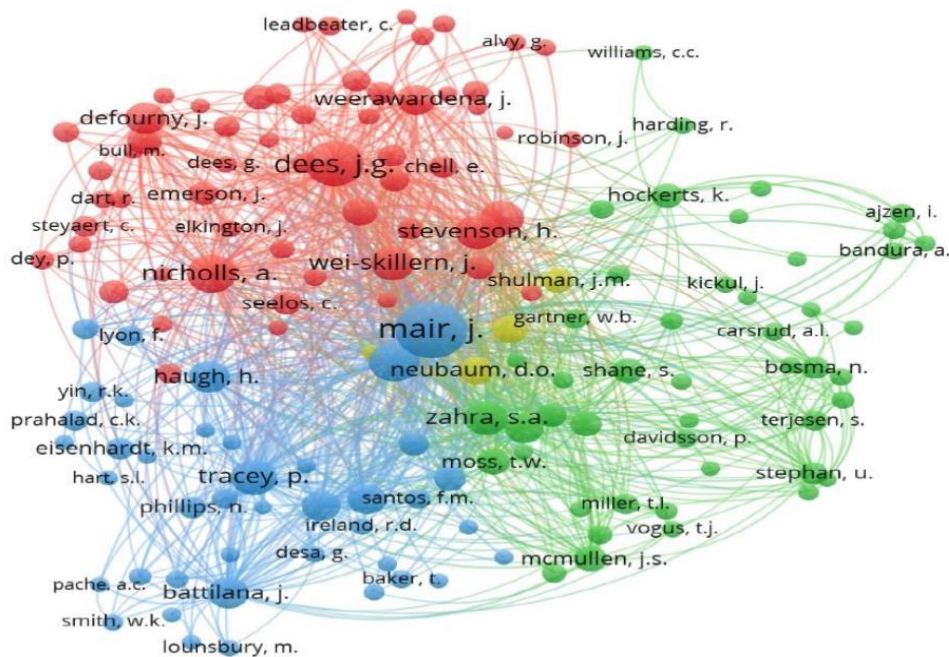


Figure 4. The intellectual structures of Social Entrepreneurship research.

The author co-citation map in Figure 4 shows that the intellectual structure of the social entrepreneurship literature is composed of three schools of thought: two are closely related to social entrepreneurship (red and blue cluster); the green cluster, instead, is made up of 47 authors associated with two research areas, that of “entrepreneurship” and “sustainability”. Those associated with entrepreneurship research included: Lumpkin (537), Shane (363), Ajzen (220), Bandura (177), Kickul (171), Fayolle (135), Kuratko (128), and Audretsch (127). The presence of these authors in the map is justified by the fact that, in the initial stages of the development of social entrepreneurship research, scholars focused more on the comparison between commercial and social entrepreneurship, to develop alternative business models [65,66]. This is an area that can be considered as a starting point for studies on social entrepreneurship.

Scholars associated with the area of sustainability, such as McMullen (395), Hockerts (337), Venkataraman (315), Stephan (274), and Shepherd (230), are linked because their research has examined the impact of entrepreneurship on economic and social outcomes, generating an environmental value [67,68]. The emergence of this school of thought on the map reflects the frequent co-citation of entrepreneurship and sustainability topics by authors specializing in social entrepreneurship, indicating that research on the theme of social entrepreneurship is affected by the influences of the authors of the sub-theme of sustainable entrepreneurship.

The other two schools of thought (red and blue clusters) are closely linked to sub-themes concerning social entrepreneurship.

The red cluster represents the Social Innovation School. This group, led by Dees (1127), Nicholls (861), Wei-Skillern (681), Stevenson (652) and Austin (649), is the largest of the three schools (58 authors).

In fact, its influence is quite substantial, as also indicated by the size of the nodes of the different authors. The scholars of the red cluster have tried to provide a definitive clarity of the construct [62,69] with the aim of arriving at new social business models [7,70].

Furthermore, the scholars of this school of thought have explored issues related to corporate social entrepreneurship [71] and social innovation [72].

Finally, the blue cluster, which deals with the SE definition, includes scholars such as Mair (1861), Marti (882), Tracey (715), and Battilana (565).

Several authors in this group have written works that were among the earliest documents cited in Table 4. Based on their central location and close links with authors from all groups, Mair and Marti represent the “boundary-hugging” reference authors who link the social entrepreneurship cluster to the other two schools of thought.

This may be due to their research focus on both traditional entrepreneurship and social entrepreneurship issues. Notably, this cluster also includes scholars known for publications on research methods, such as the qualitative case study [73] and the case method [74]. This result may mean that scholars who deal with analyzing social entrepreneurship frequently adopt these qualitative methods in their studies.

From the analysis carried out a picture emerged of social entrepreneurship as a cluster concept [46] that also embraces constructs related to describing commercial and sustainable entrepreneurship (Figure 5).

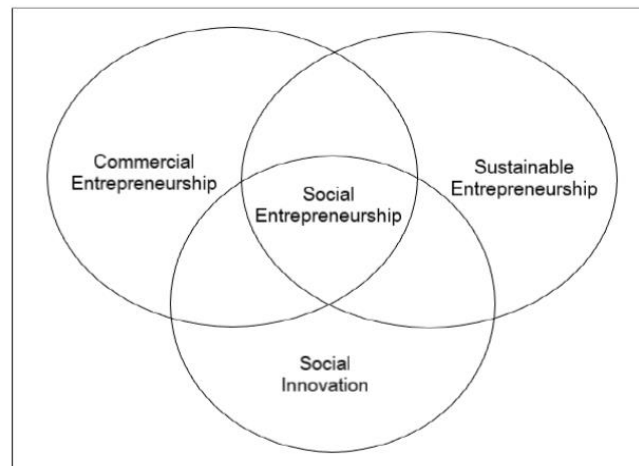


Figure 5. Social entrepreneurship as a cluster concept.

Furthermore, in the definition of social enterprise, the construct of social innovation appears important, which can be defined as the element that distinguishes social enterprise from other forms of enterprise. Social innovation in our study appeared as a tool that allows us to overcome the mechanisms that govern organizations for profit and their reinvestment of profits to provide positive changes for communities. Unlike traditional entrepreneurship, social entrepreneurs focus on the “double bottom line” [75], which is reaching both financial and social goals.

In fact, the graphical representation of the co-citation analysis also shows a fourth cluster (yellow cluster). It is more dispersed and poorly represented, thus, will not be considered as independent. Compared to the others clusters, the yellow one does not include many elements (only four authors) that are not well grouped, which makes classification difficult.

4.2. The Keywords Co-Occurrence Analysis

To answer the last research question, keyword co-occurrence analysis was used. A temporal keyword map should be interpreted in two ways. First, we must pay attention to the size of the keyword labels because it reflects the “relative frequency” with which

the keywords occurred in our database. Larger labels indicate higher frequency. Second, the color of a label highlights the time period in which documents containing the keyword were concentrated. Keywords present in articles from recent years are indicated by the color yellow.

Figure 6 reveals three periods that describe the historical evolution of social entrepreneurship research.

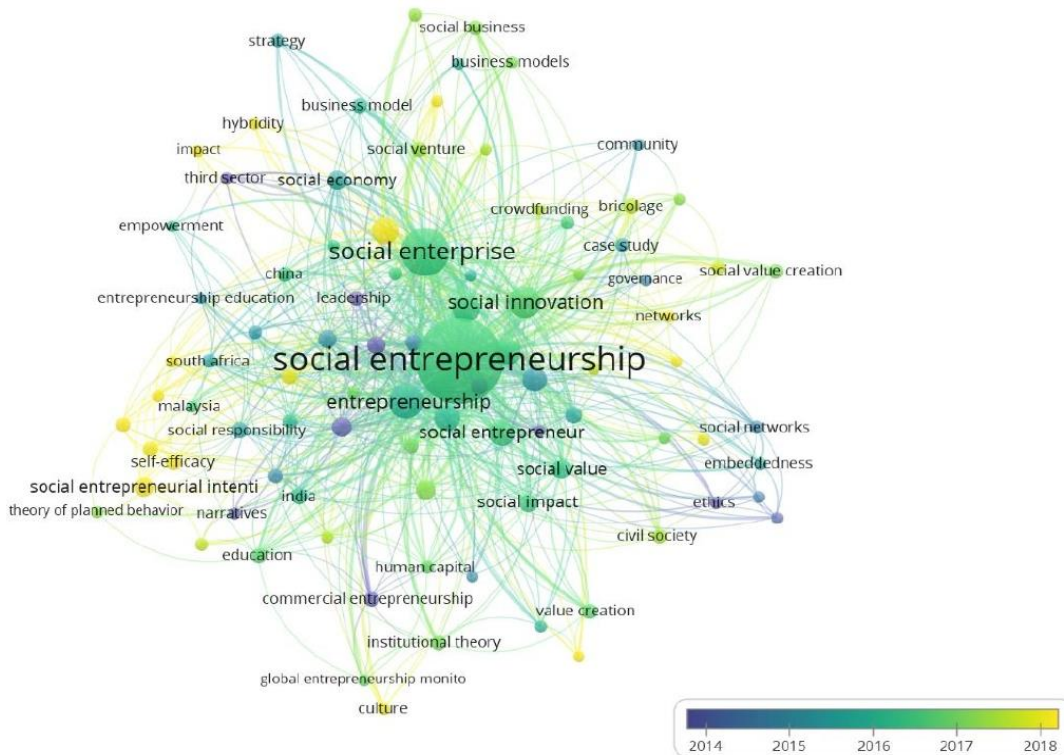


Figure 6. The research topics of social entrepreneurship literature.

Although the research began to grow rapidly, the analysis showed us that in the initial phase (purple color), scholars were still struggling with the conceptual definition of social entrepreneurship, particularly through comparison with commercial entrepreneurship.

This particular group of works has been much cited and has formed the basis for further academic research on social entrepreneurship [2,63]. Along with these works, other scholars have also conceptualized social entrepreneurship in relation to third sector enterprises [76,77] and nonprofit organizations [39,78]. This is not surprising, since scholars who approached the study of social entrepreneurship have highlighted above all the non-profit aspects of the organization. In this period, scholars discussed the meaning and conceptualization of social entrepreneurship in terms of historical roots, characteristics, and future perspectives [79,80].

In the second phase (green color), scholars have focused on the concept of hybridity [81,82]. This marked a shift in focus from idealistic conceptualizations to more pragmatic aspects of social entrepreneurship.

The concept of hybridity was born with the double objective of the organization on the creation of social value and on economic purposes [83]. The pursuit of a dual mission is not

exclusive to social entrepreneurship, but can be found in other forms of hybrid initiatives such as sustainable entrepreneurship, which, not surprisingly, appears in the map closely related to social entrepreneurship.

These hybrid initiatives act on a double level, supporting economic feasibility and environmental protection. This focus on sustainability, in addition to the creation of social value, has led scholars to question the initial idea of social entrepreneurship and to address certain issues such as the double identity of the entrepreneur [84] or institutional conflicts [81,85–87], reasons why sustainable entrepreneurship can be considered a subset of the social entrepreneurship domain.

The introduction of the concept of hybridity marked a significant change in research by influencing scholars to also consider the ethical aspects of social entrepreneurship. In recent years, the number of empirical studies testing theoretical proposals for social entrepreneurship has increased [16]. This has led to focusing the attention of scholars on the study of the factors that stimulate social entrepreneurial intention.

In this phase (yellow color) the relationship between personality traits and social entrepreneurial intention, i.e., the distinctive traits that distinguish the personality of social entrepreneurs, is discussed through the Big 5 model [88]. Subsequently, specific psychological factors are also studied, such as risk-taking propensity and proactivity [89–91], empathy and prosocial motivation [92,93], resilience and self-efficacy [94,95], moral obligation [96,97].

As for the external variables that can support the development of social entrepreneurial intention, greater emphasis has been given to the role of education [98]. For example, Shahverdi, Ismail and Qureshi [98] identified the barriers of social entrepreneurial intention by moderating the role of education among research universities in Malaysia. Hockerts [99], in turn, focused on the relationship between the experiential learning process and the trend of the social enterprise institution. Furthermore, a number of external factors such as prior experiences [97,100], culture [101,102], and support from the social network [103], have been investigated empirically in relation to the social entrepreneurial intention. Within this phase, some articles have also explored “gender issues” by examining the role of gender in the formation of the social entrepreneurial intention [104,105].

For example, Notais and Tixier [106], through the analysis of six life stories of women from disadvantaged areas, studied the factors that push women to choose a social entrepreneurial career. Among these factors, the economic dimension and the attraction toward a social role were the most important. Lortie et al. [107], through gender self-schemas theory and social identity theory, explained the natural propensity of women toward social goals and the creation of social value.

5. Discussion and Conclusions

This review contributes to social entrepreneurship research by demonstrating a systematization of the knowledge base and useful insights into the intellectual structure.

Specifically, as the citation analysis shows, social entrepreneurship is an emerging research field, but in recent years it has increasingly interested researchers internationally. Furthermore, social entrepreneurial scholarship stands out for its high quality (for example, of the 15 selected scientific journals, 13 are placed in a Q1 or Q2 rank) and for a discreet collaboration between the authors (with an average of two authors per article), which is indicative of the importance that the scientific community attributes to this field of research.

The analysis of the most cited articles showed on the one hand a strong domination of Western society scholars, and on the other a scarce presence of quantitative studies.

In contrast to previous and important reviews on the topic (e.g., [108–110]), our study considered social entrepreneurship as a cluster concept (in line with the suggestions of Choi and Majumdar [46]), also analyzing the sub-themes that constitute the starting point for the study of social entrepreneurship. For this reason, together with the citation analysis, we considered it appropriate to carry out author co-citation analysis (ACA). This technique allowed us to analyze not only the citations that were part of the field of social

entrepreneurship, but also all those authors who were most cited by researchers interested in social entrepreneurship.

Specifically, the results relating to the author co-citation analysis (ACA) indicated three schools of thought; one is related to entrepreneurship and sustainability (green cluster). This school can be considered as a starting point for research into social entrepreneurship. This is indicated in the first case, by borrowing some models of commercial entrepreneurship (for example, [111]) and in the second case by considering sustainable entrepreneurship as closely connected to social entrepreneurship.

The other two “schools of thought” are more specifically related to sub-themes of social entrepreneurship: definition and theoretical framework (blue cluster) and social innovation (red cluster), which are configured as elements that distinguish social entrepreneurship from other forms of business. The results showed that social entrepreneurship is configured as a cluster concept that embraces issues not only relating to other research fields such as commercial and sustainable entrepreneurship, but also issues that specifically concern the social dimension of entrepreneurship such as innovation.

The analysis of the keyword co-occurrence also made it possible to monitor the evolution of topics related to social entrepreneurship (research front). Specifically, there are three phases of development of research on social entrepreneurship. In the first period (2014–2016) the literature was based on the convergences between commercial entrepreneurship.

Scholars in this phase were more interested in analyzing the peculiarities between social and commercial entrepreneurship, placing emphasis on non-profit organizations and third sector. This is an extremely important phase because it constitutes the theoretical basis for the development of social entrepreneurship as an independent research field.

In the second phase (2016–2018), the concept of hybridity changed the focus of the attention of the scientific community. This change led to the proliferation of hybrid organizations and the birth of sustainable entrepreneurship, considered as a sub-theme in the study of social entrepreneurship.

Finally, in the third phase (2018–2020), the research shifted to the analysis of the factors that support the development of social entrepreneurial intention. From the documents that are part of our database it emerged that not only have personality traits specifically been studied (with reference to the Big Five Dimensions), but also psychological factors such as self-efficacy, resilience, moral obligation, empathy, and prosocial motivation. In addition, the articles that analyzed the factors that support the development of social entrepreneurial intention, specifically education, social network, culture and gender, are also part of this group.

Among these, gender deserves particular attention. In general, there is an imbalance between men and women in the choice of an entrepreneurial career, with a supremacy of men. Studies conducted on social entrepreneurship have shown that this gap is significantly reduced, further justifying the importance of this form of entrepreneurship in reducing prejudices and inequalities [57,112,113].

Based on the foregoing, we developed a conceptual model of the evolution of social entrepreneurship in the three phases that distinguish it (Figure 7).

This conceptual model can be used for future research to deepen the knowledge base of social entrepreneurship. For example, our analysis showed that many researchers have undertaken to analyze the factors that stimulate the choice of a social entrepreneurial career. However, little is known about the interplay between the different factors and the mechanisms that come into play specifically. Furthermore, research on possible obstacles still appears to be underdeveloped [16]. We invite researchers to further investigate these aspects in their future research.

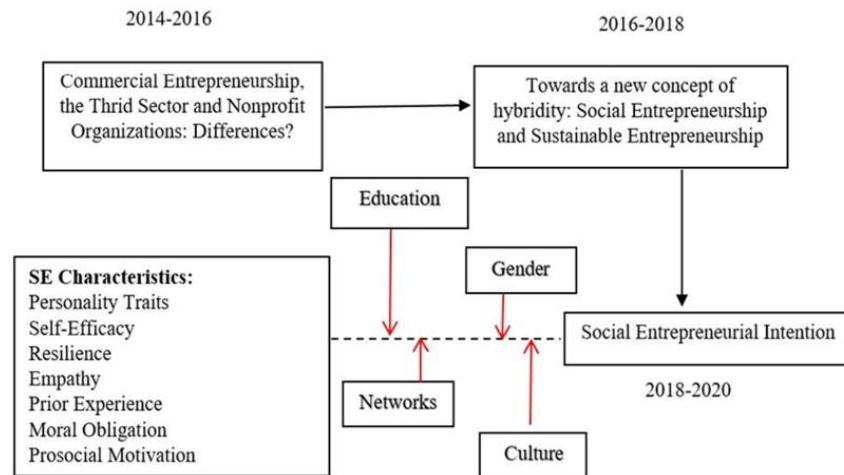


Figure 7. The conceptual model of social entrepreneurship research.

The results also showed low participation from developing countries. Indeed, with the exception of India, no emerging economy actively participated in the development of the knowledge base of social entrepreneurship. Given the importance that the latter assumes in the social change of a country, we believe that this is a gap that future research should fill. In fact, numerous studies have focused on entrepreneurs’ efforts to increase social impact and transformation, but there are some less explored areas under this theme. For example, the engagement of social entrepreneurs in important social problems related to poverty, health, education, and unemployment. Since the creation of social value is driven by the mission and success of the enterprise, the strategy therefore depends on factors very different from the commercial enterprise. This research area could be further enriched.

Our findings on the methods employed in social entrepreneurship research are in line with previous studies (e.g., [114,115]). This indicates that the social entrepreneurship literature lacks empirical analysis, and, furthermore, the articles presenting empirical results are predominantly based on qualitative methods. There is no doubt that case studies and other forms of qualitative research, when used correctly, appear to be important tools for improving understanding of the field [116]; however they are often used to exemplify the theoretical concepts of social entrepreneurship rather than for the construction of an adequate theory. Different research methods would help improve the field of social entrepreneurship because the field still lacks sufficient basis for large-scale quantitative studies.

Indeed, quantitative research on social entrepreneurship is very limited in scope and focuses mainly on measuring social impact [117] or evaluating social enterprise financing [118]. Therefore, the development of quantitative measurement tools in social entrepreneurship is one of the most current research challenges [12].

Other major challenges relate to the boundaries of social entrepreneurship compared to other more traditional forms of entrepreneurship. For example, with the development of the key concept of hybridization, the gap between the business world and the social world is narrowing, and hybrid organizations are starting to emerge in this context. The results indicate that hybridization is becoming an established concept, with the emergence of terms such as “social business” that conceptually mix the corporate and social worlds, it would be interesting to know who are the financiers of this type of organization and what are the reasons. These trends indicate future lines of research about which we still know very little.

Some methodological limitations can be drawn from our study. In the first place, the use of VOSviewer and the choice of the analysis of the co-occurrences of the keywords imply that only those key words that are repeated several times in the scientific articles in our database should be used; considering the emerging social entrepreneurship phase, this could represent a limit because it does not give due importance to the whole panorama that describes the field of study, especially since it is an extremely varied and dispersive field of research. However, we overcame this possible limitation through the use of precise inclusion criteria, according to the recommendations of the PRISMA method, which allowed us to reduce the large number of studies on social entrepreneurship and to keep under control any attribution bias, analyzing only those articles relevant to our research objectives.

Secondly, although in our analysis we used two of the largest databases in the literature, it would also be interesting to use other databases to expand the body of the literature and highlight the differences and similarities regarding the analysis presented by us. It may also be useful to use different sources (e.g., books, book chapters, conference papers, etc.) as well as to include works written in a language other than English and different bibliometric indicators to continue studying the research field that appears to be constantly evolving.

Beyond the methodological implications, we believe that the present study makes a significant contribution to the literature in two different ways. First, by considering social entrepreneurship as a cluster concept. This prompted us to identify the relationships between the different sub-themes of social entrepreneurship and to broaden the body of knowledge. From this perspective it was possible to observe how the clusters are strongly related to each other (see Figure 4), significant proof that scholars who do research on social entrepreneurship dialogue together with authors interested in other forms of entrepreneurship, with the aim to build a common research pool and contribute to the development of this field of study. Furthermore, through this study, we identify a conceptual framework that summarizes all the most important stages in the evolution of social entrepreneurship. Knowing the current research trends, strengths, and weaknesses is important to inform researchers who are entering this field of study by leading the way in the development of this research topic.

Author Contributions: Conceptualization, G.M.C. and B.R.H.-S.; methodology, G.M.C. and B.R.H.-S.; software, G.M.C.; validation, G.M.C., B.R.H.-S., A.A.M. and J.C.S.-G.; formal analysis, G.M.C.; investigation, G.M.C., B.R.H.-S. and A.A.M.; resources, G.M.C.; data curation, G.M.C.; writing—original draft preparation, G.M.C., B.R.H.-S., A.A.M.; writing—review and editing, A.A.M. and G.M.C.; visualization, G.M.C., B.R.H.-S., A.A.M. and J.C.S.-G.; supervision, A.A.M. and J.C.S.-G.; project administration, A.A.M. and J.C.S.-G.; funding acquisition, J.C.S.-G. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by Consejería de Educación, Junta de Castilla y León, grant number J424.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Acknowledgments: The authors would like to thank the Chair of Entrepreneurs, University of Salamanca, for administrative and technical support.

Conflicts of Interest: The authors declare no conflict of interest.

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4.4 Publicación IV: Las necesidades psicológicas básicas como competencia motivacional: validez e invarianza de medición de la versión española de la escala BPNSF



Cardella G. M., Hernández Sánchez, R. B., & Sánchez García, J. C. (2020). Basic Psychological Needs as a Motivational Competence: Examining Validity and Measurement Invariance of Spanish BPNSF Scale. *Sustainability*, 12, 5422. <https://doi.org/10.3390/su12135422>.

Resumen

La motivación es un componente esencial en la educación superior. En esta área, los investigadores han descrito tres necesidades psicológicas básicas que impulsan el comportamiento humano: autonomía, competencia y relación. Estas tres necesidades son dimensiones centrales de la teoría de la autodeterminación (*Self-Determination Theory*; Ryan y Deci, 2000), que las define como algo innato, universal y esencial para la salud y el bienestar psicológico. Específicamente, las necesidades psicológicas básicas son un aspecto natural de los seres humanos en el que influyen la motivación intrínseca de los individuos, induciéndolos a actuar de una determinada manera, independientemente del grupo al que pertenezcan, género o contexto cultural.

En literatura se han utilizado varias herramientas para evaluar estas dimensiones, sin embargo, a pesar de la universalidad de estas herramientas, la literatura carece de validación en el contexto español.

El presente estudio tiene como objetivo analizar las propiedades psicométricas de la Escala de Satisfacción y Frustración de las Necesidades Psicológicas Básicas (Chen et al., 2015) en el contexto español, con una muestra de 1.075 estudiantes universitarios. La escala consta de 24 ítems agrupados en seis factores, que representan una estructura multidimensional de las necesidades psicológicas básicas. En concreto, tres de estos factores (autonomía, competencia y relación) analizan las necesidades de satisfacción (12 ítems), mientras que las otras tres subescalas restantes evalúan el nivel de frustración para cada necesidad psicológica básica (12 ítems). Los 24 ítems fueron calificados en una escala tipo Likert de 5 puntos, de 1 (completamente falso) a 5 (completamente verdadero).

Los resultados obtenidos indican una buena consistencia interna, alfa= 0.843 y omega de McDonald= 0.846 para la satisfacción y alfa= 0.813 y omega de McDonald 0.815 para la frustración de las necesidades psicológicas, así mismo los resultados del análisis factorial confirmatorio mostraron un ajuste adecuado del modelo a los datos (χ^2 (237)= 423.016; $p < .001$; CFI= 0.988; GFI= 0.999; TLI= 0.986; RMSEA= 0.027), brindando evidencias de validez de la estructura de seis factores realizada por Chen et al., (2015).

La estructura factorial obtenida también proporcionó evidencia en apoyo del análisis de Invarianza del Modelo de Medida respecto al género (n= 527 hombres y n= 548 mujeres) y a los diferentes tipos de estudios (n= 446 ciencias sociales, n= 377 ciencias de la salud y n= 252 humanidades) mediante análisis multigrupo (Tabla 6).

Tabla 6. Modelos de Invarianza de medición de la escala BPNSF

Modelos	X ² (df)	X ² /df	$\Delta\chi^2$	p	CFI (Δ CFI)	SRMR (Δ SRMR)	RMSEA (90% C.I.) (Δ RMSEA)
<i>Sexo</i>							
M1: invarianza configural	550.681 (474)	1.16	-	0.008	0.995	0.048	0.017 (0.009 0.023)
M2: invarianza métrica	579.953 (492)	1.17	29.27**	0.004	0.994 (0.001)	0.049 (0.001)	0.018 (0.011 0.024) (0.001)
M3: invarianza fuerte	607.747 (510)	1.19	27.79**	0.002	0.994 (0.000)	0.048 (0.001)	0.019 (0.012 0.024) (0.001)
M4: invarianza estricta	626.566 (534)	1.17	18.82**	0.003	0.994 (0.000)	0.050 (0.002)	0.018 (0.011 0.024) (0.001)
<i>Tipos de estudios</i>							
M1: invarianza configural	626.566 (534)	0.936	-	0.885	1.000	0.051	0.000 (0.000 0.008)
M2: invarianza métrica	777.986 (747)	1.04	111.91**	0.210	0.998 (0.002)	0.055 (0.004)	0.011 (0.000 0.019) (0.011)
M3: invarianza fuerte	795.720 (783)	1.01	17.73**	0.368	0.999 (0.001)	0.055 (0.000)	0.007 (0.000 0.017) (0.004)
M4: invarianza estricta	836.275 (831)	1.00	40.56**	0.442	1.000 (0.001)	0.057 (0.002)	0.004 (0.000 0.016) (0.003)

Comparación: M1 vs. M2; M2 vs. M3; M3 vs. M4

Estos resultados permitieron utilizar esta herramienta para analizar la influencia de la satisfacción de las necesidades psicológicas básicas en la intención emprendedora de los estudiantes universitarios (publicación V) y contribuir a la comprensión de un constructo que no ha recibido la debida atención en la literatura sobre el emprendimiento.

De hecho, a pesar de la indudable importancia de la teoría de la autodeterminación en el comportamiento emprendedor, pocos estudios han analizado esta relación, prefiriendo otros factores motivacionales, por ejemplo, la necesidad de logro, que establece




que las personas se ven empujadas a realizar determinadas conductas para satisfacer sus necesidades. Según la teoría de la autodeterminación, los individuos tienen necesidades psicológicas básicas que, una vez satisfechas, les permiten alcanzar otros objetivos. En este sentido, la satisfacción de las necesidades psicológicas básicas es un medio, no un fin.

Palabras Clave: Necesidades psicológicas básicas; Escala BPNSFS; Teoría de la autodeterminación; Validación; Educación superior; Estudiantes universitarios españoles.



Article

Basic Psychological Needs as a Motivational Competence: Examining Validity and Measurement Invariance of Spanish BPNSF Scale

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Received: 9 May 2020; Accepted: 3 July 2020; Published: 5 July 2020



Abstract: Motivation is an essential component in higher education. In this area, researchers have described three psychological needs that drive human behavior: Autonomy, competence, and relatedness. These three needs are central dimensions of Self-Determination Theory. Various measurement tools have been used to evaluate these dimensions. Despite the universality of these, the literature lacks validation of them in the Spanish university context. The present study aims to analyze the psychometric properties of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS) in this context. This scale was administered to a sample of 1075 Spanish university students. Confirmatory factor analysis yielded that the six-factor structure fitted the data. Results supported the reliability and validity of all the subscales. The obtained factor structure provided evidence in support of the comparability of the model between male and female students and different types of studies.

Keywords: basic psychological needs; BPNSFS scale; self-determination theory; validation; higher education; Spanish university students

1. Introduction

Learning is associated with variables of diverse nature whose in-depth study is essential to optimize the quality of educational processes and academic performance. Various studies have found that academic performance is influenced by psychological variables, such as self-determined motivation [1], the satisfaction of basic psychological needs [2], or commitment [3].

For these purposes, the Self Determination Theory (SDT) developed by Deci and Ryan [4], which analyzes motivation and personal development, has been useful in explaining behaviors in various educational contexts. One of the fundamental concepts in SDT is that of basic psychological needs, defined as something innate, universal, and essential for health and well-being [5,6].

Specifically, basic psychological needs are a natural aspect of human beings that influence the intrinsic motivation of individuals, causing them to act in a certain way, instead of another, regardless of the group to which they belong, their gender or cultural context [2,7].

This theory differentiates the existence of three basic psychological needs (BPNs) (i.e., autonomy, competence, and relatedness) that every individual must satisfy to guarantee good psychological functioning [8]. The literature indicates that the satisfaction of the BPNs has been associated with positive consequences, such as greater autonomous motivation, greater self-control, or greater intention

to want to learn [9]. BPNs, in addition to being satisfied, can also be frustrated. Bartholomew et al. [10] defined NPB frustration as a negative state experienced by a person when he or she feels that his NPB is being actively restricted. It is important to note that the frustration of BPNs is not conceptually equivalent to their lack of satisfaction.

It is also important to differentiate between motivation and commitment. Motivation refers to a private and unobservable psychological process that serves as an antecedent to observable behavior such as commitment [11,12]. Therefore, it is important to investigate the factors that influence commitment to identify which teaching strategies can best favor it, in our case, to know the BPNs. However, to have good knowledge of BPNs, we need a good tool with which to be able to properly evaluate them. Good knowledge implies good evaluation. Therefore, in the present study, we propose the evaluation of the BPNs.

The specialized literature has explained motivation as sustainable competence and as an engine of the learning process [13]. Generally, it is assumed that motivation is an internal process that guides and leads students to carry out a series of activities proposed in the learning process, acting as a mediator in the acquisition of information, and that affects school performance [14,15]. Therefore, it seems appropriate to look into the intrinsic aspects that drive people to act, as well as their psychological needs, which are the basis of personality development, to achieve greater self-awareness and self-determination [16]. This is especially relevant for university students, as it can help them in choosing their professional careers.

To measure these psychological needs, Deci and Ryan [8] developed an instrument called the Basic Psychological Needs Scale (BPNS), both in general and in specific areas. For example, in the family environment [17–19], religious [20,21], sports [22–25], educational [26–28], and in the workplace [29–31], extending its adaptation and use in different countries and cultural contexts.

The original scale consisted of 21 items [32], seven items assessed autonomy, six assessed competence, and eight assessed relatedness. This subdivision has been questioned by many scholars who have advocated the use of an equal number of voices assessing each need [33].

The nature of the BPNS scales was also discussed [33–35]. Specifically, the need for frustration should not simply be considered the opposite of need for satisfaction, but a related construct that deserves separate investigation.

Various attempts have, therefore, been made to develop alternative scales that evaluate the satisfaction and frustration of the need separately and not simply in opposition to each other [33–35].

Among the various scales proposed, the one that has obtained wide consensus is the Basic Psychological Satisfaction and Frustration Scale (BPNSFS) developed by Chen et al. [34]. In the instrument proposed by Chen et al., each need consisted of three subscales (Autonomy, Competence and Relatedness Satisfaction and Autonomy, Competence, Relatedness Frustration) for a total of six subscales and 24 items.

Chen et al. [34] have validated the BPNSFS in four different cultures: China, Belgium, the United States, and Peru. The authors provided empirical evidence that the 24-element scale has a multidimensional structure and separately measures the three psychological needs (autonomy, competence, relationship) of satisfaction and frustration, resulting in a six-factor model. To conduct the analysis, a sample of 1051 college students with an average age of 20 years was used.

The outcomes obtained from the cross-validation showed an internal consistency for each dimension varying between 0.64 and 0.89. The six-factor model proposed by the authors had a good fit, $SBS-\chi^2(231) = 441.99$, CFI = 0.95, RMSEA = 0.04 and SRMR = 0.04. The results showed the validity of the six-factor model, which led to a good adaptation of the model in the four cultures [34].

Subsequently, Cordeiro et al. [36] translated the BPNSFS into Portuguese, examining the validation of the instrument in a sample of 417 university students with an age mean of 20 years. The results obtained showed good internal consistency of the scale for, both, satisfaction and frustration (varied between 0.70 for autonomy frustration and 0.85 for competence satisfaction), and the confirmatory factor analysis showed

good model fit indices: $\chi^2(237) = 519.128$, CFI = 0.95, RMSEA = 0.05 and SRMR = 0.05, which supports the data from the original six-factor model.

Similar results were also found in the study by Del Valle et al. [37] and Liga et al. [38], in the Italian context.

Nevertheless, the literature review in this regard allows us to affirm that currently, there are no validation studies of this instrument for university students in the Spanish context. Some works related to this topic can be found in Longo et al. [39], who analyzed basic psychological needs using the "Need Satisfaction and Frustration Scale" (NSFS) developed by Longo et al. [35], González-Cutre et al. [40], who evaluated the need for satisfaction, with the General Basic Needs Satisfaction in General Scale (BNSG-S), Rodríguez-Meirinhos et al. [41] that provided evidence of validity for the Spanish version adapted for children of the Basic Psychological Need Satisfaction and Frustration Scale, Menéndez Santurio et al. [42] that evaluated the basic psychological needs in adolescents, high school students, Burgueño et al. [29] who validated the Basic Psychological Need Satisfaction in Active Commuting to and from School (BPNS-ACS) Scale, also in high school students. However, none of these studies have been conducted in the context of university higher education and, above all, none have specifically validated the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS).

Given the importance of studying self-determination and psychological needs in university students, and taking into account the above, we have tried to fill this literature gap. Therefore, this study was carried out with the aim of analyzing and validating the psychometric properties of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS) developed by Chen et al. [34] in a sample of Spanish university students. In this sense, we also carried out a multi-group analysis to test the invariance of the instrument based on sex and type of studies in the sample.

2. Materials and Methods

2.1. Participants

The study sample comprised 1075 university students, of whom 527 (49%) were male and 548 (51%) female, aged between 17 and 31 years ($M = 20.35$, $SD = 1.878$) and from different fields of knowledge: Social sciences (446), health sciences (377), and humanities (252). The selection of degrees in each of these fields was made on the basis of completely random sampling, and the students voluntarily participated in the development of the research anonymously.

Once the factor model of the scale with the best fit was determined, we proceeded to test its measurement invariance by gender ($n = 527$ males and $n = 548$ females) and type of studies ($n = 446$ social sciences, $n = 377$ health sciences and $n = 252$ humanities) through multi-group analysis.

2.2. Instrument

All participants completed the Spanish version of the BPNSFS scale. The form was translated into Spanish by two bilingual translators and then back-translated into English by a bilingual, native-English-speaking researcher, after which differences between the two English versions were discussed. Only minor differences in style between the back-translated and the original version were found. The Spanish version was distributed to a sample of 50 university students who reported no problems with the meaning and clarity of the items. The original form was retrieved from the Self Determination Theory website (<https://selfdeterminationtheory.org>).

The scale was made up of 24 items grouped into six factors, which account for a multidimensional structure of basic psychological needs, as described in Self Determination Theory (SDT), developed by Deci and Ryan [4].

Specifically, three of these scales analyze the satisfaction needs of the three basic psychological needs such as autonomy (four items AS1, AS2, AS3, AS4: For example, “I feel that my decisions reflect what I really want”), relatedness (four items RS1, RS2, RS3, RS4: For example, “I feel close and connected with other people who are important to me”), and competence (four items CS1, CS2, CS3, CS4: Example, “I feel I can successfully complete difficult tasks”). The other three remaining scales assess the level of frustration for each basic psychological needs; that is, autonomy (four items AF1, AF2, AF3, AF4: For example, “Most of the things I do feel like ‘I have to’”), relatedness (four items RF1, RF2, RF3, RF4: Example, “I have the impression that people I spend time with dislike me”), and competence (four items CF1, CF2, CF3, CF4: Example, “I have serious doubts about whether I can do things well”). The 24 items were evaluated through a five-point Likert-type scale, varying from 1 (completely false) to 5 (completely true).

2.3. Procedure

The participation of the students was voluntary and anonymous, which included handling a letter of informed consent, explaining the objectives of the study, determining the risks and benefits for the study participants, without limiting their freedom [30]. All participants gave their informed consent for inclusion before they participated in the study. Along with the BPNSFS scale, students were asked to indicate certain information for the construction of sociodemographic variables of our interest (for example: Age, gender, type of studies). The application was made collectively at the end of the first semester of the academic period 2019/2020. Students completed the questionnaire in approximately 20 min and received no credit for participating in the study. In this article, we provide the measures collected from the respondents. All respondents answered all questions. There were no missing data. The study was conducted in accordance with the Declaration of Helsinki. Ethical review and approval were not required for the study on human participants in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Data availability was according to the journal guidelines. However, the data are available upon request from interested researchers.

2.4. Statistical Analysis

Confirmatory factor analysis (CFA) was conducted with JASP 0.12.2 software using the SEM module (Rosseel’s R package lavaan) and the Diagonally Weighted Least Squares (DWLS) estimator. This method performs well across many conditions [31]. Moreover, in this study, the data were collected using Likert scales and the assumption of normality was not satisfied. Thus, the data were ordered categorical. The DWLS estimator based on the polychoric correlation matrix avoids biased parameter estimates that could appear with the maximum likelihood estimations.

The DWLS estimator is considered a more reliable option with ordered categorical variables [43,44]. In this study, an attempt was made to test how the data fit the model and to check whether the proposed model fits the data [45] to support the validity of the proposed model of six factors that measure satisfaction and frustration of the three basic psychological needs of autonomy, competence, and relationship made by Chen et al. [34].

The most common fit indices were used to fit the model. Goodness to fit indices were used when the ratio between the chi-squared value and the degree of freedom was lower than 3, $\chi^2/\text{degrees of freedom}$ (χ^2/df), the comparative fit index (CFI), Tucker–Lewis index (TLI) and Goodness of fit index (GFI) (acceptable fit: ≥ 0.95), the root mean square error of approximation (RMSEA) was also included as a goodness of fit index and it must be lower than 0.05 or assumes a maximum value of 0.08 [46].

The Kaiser–Meyer–Olkin (KMO) adequacy of sample measure and the Bartlett’s test of sphericity were calculated. The Cronbach’s alpha coefficient and Mc Donald’s omega were used to analyze the reliability of the scale.

Finally, to verify that the factor structure of the Spanish version measured was invariant by gender and type of studies, a multiple-group confirmatory factor analysis (MGCFA) was performed.

In MGCFA, nested models are organized in a hierarchical ordering with increasing degrees of freedom, which entails adding parameter constraints one at a time. These increasingly restrictive models are tested in terms of their fit of the data to the model [47]. Because each new model is nested in the previous model, measurement invariance models become increasingly more restrictive. MGCFA following this approach is widely accepted to be the most powerful approach for testing measurement invariance [48]. Hence, the four measurement invariance (MI) steps considered are: Configural, equivalence of model form; weak *metric*, equivalence of factor loadings; strong *metric*, equivalence of item intercepts or thresholds; and strict *metric*, equivalence of items residuals or unique variances [49]. Specifically, the latent intercepts were fixed to 0 in all the steps described above. Classically, the measurement invariance was assessed using a single criterion, i.e., the variation of χ^2 for nested models [50,51]. However, some researchers have moved from a focus on absolute adaptation in terms of χ^2 to a focus on alternative adaptation indices because χ^2 is excessively sensitive to small minor deviations from a “perfect” model in large samples [52,53]. In this study according to Chen [54] we used a criterion of a -0.01 change in CFI, paired with changes in RMSEA of 0.015 and SRMR of 0.030 (for metric invariance) or 0.010 (for scalar or residual invariance).

3. Results

3.1. Descriptive Analysis

As shown in Table 1, the means and standard deviation of the items that make up the scale (BPNSFS) were calculated. As it was logical to expect and in line with previous studies [34–38], high scores in items related to the satisfaction domains related to low scores on frustration domains, and vice versa.

The KMO index showed a value of 0.866 and the Bartlett’s sphericity test was statistically significant ($\chi^2 = 5277.660$; $p < 0.001$). These values indicate that performing a factor analysis is possible.

The internal consistency of the scale was evaluated with two indices: Cronbach’s alpha and Mc Donald’s omega [55]. The results show an alpha 0.843 and Mc Donald’s omega of 0.846 for the psychological needs satisfaction dimension and an alpha 0.813 and omega 0.815 for the needs frustration dimension. The values obtained for the case of the six subscales or factors were: For factor I (Autonomy Satisfaction) Cronbach’s alpha was 0.787 and Mc Donald’s omega was 0.794; factor II (Autonomy Frustration) showed a Cronbach’s alpha of 0.727 and Mc Donald’s omega of 0.728, factor III (Relatedness Satisfaction) showed a Cronbach’s alpha of 0.787 and Mc Donald’s omega of 0.805. For factor IV (Relatedness Frustration) Cronbach’s alpha was 0.761 and Mc Donald’s omega was 0.778; for factor V (Competence Satisfaction) Cronbach’s alpha was 0.843 and Mc Donald’s omega was 0.849, and, lastly, factor VI (Competence Frustration) showed a Cronbach’s alpha of 0.782 and a Mc Donald’s omega of 0.785.

Table 2 shows correlations between the six first order latent factors. Specifically, the latent factor “Autonomy Satisfaction” is formed by the items AS1, AS2, AS3, AS4, “Relatedness Satisfaction” is formed by the items: RS1, RS2, RS3, RS4, “Competence Satisfaction” is formed by the items CS1, CS2, CS3, CS4, “Autonomy Frustration” is formed by the items AF1, AF2, AF3, AF4, “Relatedness Frustration” is formed by the items: RF1, RF2, RF3, RF4, “Competence Frustration” is formed by the items CF1, CF2, CF3, CF4 (see Table 1).

Table 1. Mean and standard deviations of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSF) Scale.

Items	Mean	SD
AS1. I feel a sense of choice and freedom in the things I undertake	4.10	0.853
AS2. I feel that my decisions reflect what I really want	3.81	0.866
AS3. I feel my choices express who I really am	3.87	0.887
AS4. I feel I have been doing what really interests me	3.80	0.975
Autonomy Satisfaction	3.89	0.700
AF1. Most of the things I do feel like ‘I have to’	2.98	1.04
AF2. I feel forced to do many things I wouldn’t choose to do	2.78	1.15
AF3. I feel pressured to do too many things	2.53	1.15
AF4. My daily activities feel like a chain of obligations	2.44	1.08
Autonomy Frustration	2.68	0.821
RS1. I feel that the people I care about also care about me	4.20	0.887
RS2. I feel connected with people who care for me, and for whom I care	4.38	0.805
RS3. I feel close and connected with other people who are important to me	4.21	0.848
RS4. I experience a warm feeling with the people I spend time with	4.09	0.945
Relatedness Satisfaction	4.22	0.681
RF1. I feel excluded from the group I want to belong to	1.65	0.972
RF2. I feel that people who are important to me are cold and distant towards me	1.50	0.818
RF3. I have the impression that people I spend time with dislike me	1.52	0.808
RF4. I feel the relationships I have are just superficial	1.72	0.987
Relatedness Frustration	1.59	0.686
CS1. I feel confident that I can do things well	3.79	0.977
CS2. I feel capable at what I do	3.87	0.890
CS3. I feel competent to achieve my goals	3.92	0.893
CS4. I feel I can successfully complete difficult tasks	3.73	0.916
Competence Satisfaction	3.82	0.758
CF1. I have serious doubts about whether I can do things well	2.38	1.08
CF2. I feel disappointed with many of my performance	2.81	1.10
CF3. I feel insecure about my abilities	2.49	1.08
CF4. I feel like a failure because of the mistakes I make	2.22	1.13
Competence Frustration	2.47	0.858

SD = Standard Deviation.

Table 2. Correlation between satisfaction and frustration in basic psychological needs.

Factors	1	2	3	4	5
Need for Satisfaction					
1 Autonomy Satisfaction	-				
2 Relatedness Satisfaction	0.374 **	-			
3 Competence Satisfaction	0.429 **	0.298 **	-		
Need for Frustration					
4 Autonomy Frustration	-0.320 **	-0.150 **	-0.228 **	-	
5 Relatedness Frustration	-0.281 **	-0.534 **	-0.231 **	0.306 **	-
6 Competence Frustration	-0.384 **	-0.234 **	-0.528 **	0.400 **	0.341 **

Note. ** $p < 0.001$.

As hypothesized, there is a positive and significant correlation between the factors that measure the satisfaction of the psychological needs of autonomy, relatedness, and competence, and a similar situation is observed for the correlation between the factors that measure the frustration of these three psychological needs. Furthermore, as logically expected, there is a negative and significant correlation between the factors that measure satisfaction and frustration, respectively.

3.2. Confirmatory Factor Analysis

A total of 1075 university students participated in a confirmatory factorial analysis (CFA), to evaluate the fit of the model. The six-factor solution was then compared to an alternative measurement model, a two-factor model that measures the need satisfaction, consisting of the Autonomy Satisfaction (four items: AS1, AS2, AS3, AS4), Relatedness Satisfaction (four items: RS1, RS2, RS3, RS4) and Competence Satisfaction (four items: CS1, CS2, CS3, CS4); and the need frustration, formed by the subscales Autonomy Frustration (four items: AF1, AF2, AF3, AF4), Relatedness Frustration (four items: RF1, RF2, RF3, RF4) and Competence Frustration (four items: CF1, CF2, CF3, CF4) (Table 3).

Table 3. Fit indices for the two models (Sample n = 1.075).

Models	χ^2	df	p	CFI	GFI	TLI	RMSEA
Two-factor model	2270.296	251	<0.001	0.869	0.994	0.856	0.087
Six-factor model	423.016	237	<0.001	0.988	0.999	0.986	0.027

Note. Best fit model is in bold.

As shown in Table 3, the two-factor model yielded a marginal fit to the data $\chi^2 (251) = 2270.296$ $p < 0.001$, CFI = 0.869, GFI = 0.994, TLI = 0.856 and RMSEA = 0.087, compared to the six-factor model, supporting this last solution as the preferred for interpreting the theoretical structure of the BPNSFS data. The initial confirmatory factor analysis of the scale of satisfaction and frustration of the basic psychological needs showed an adequate fit of the data to the model. Although the chi-square was significant ($\chi^2 (237) = 423.016$ $p < 0.001$), due to the large sample size [56], while the other fit measurements confirmed excellent compatibility, with a CFI = 0.988, GFI = 0.999, TLI = 0.986, and RMSEA = 0.027. The results support the validity of the proposed six-factor model to the data used. Table 4 shows the results of the CFA with consideration of the correlations among the errors. Item factorial loadings were acceptable, additionally, the overall fit indexes were satisfactory.

Table 4. Estimated factor loadings.

	AtS	AtF	RIS	RIF	CmS	CmF
AS1	0.691					
AS2	0.768					
AS3	0.669					
AS4	0.658					
AF1		0.573				
AF2		0.652				
AF3		0.648				
AF4		0.649				
RS1			0.741			
RS2			0.806			
RS3			0.757			
RS4			0.500			
RF1				0.677		
RF2				0.730		
RF3				0.755		
RF4				0.532		
CS1					0.772	
CS2					0.872	
CS3					0.832	
CS4					0.559	
CF1						0.723
CF2						0.596
CF3						0.711
CF4						0.725

Note. AtS = Autonomy Satisfaction; AtF = Autonomy Frustration; RIS = Relatedness Satisfaction; RIF = Relatedness Frustration; CmS = Competence Satisfaction; CmF = Competence Frustration.

Table 5 shows the values of the inter-factor correlations.

Table 5. Inter-factor correlations.

	AtS	AtF	RIS	RIF	CmS	CmF
AtS	1.000	−0.421	0.470	−0.361	0.528	−0.483
AtF		1.000	−0.203	0.403	−0.302	0.524
RIS			1.000	−0.652	0.354	−0.301
RIF				1.000	−0.276	0.435
CmS					1.000	−0.654
CmF						1.000

Note. AtS = Autonomy Satisfaction; AtF = Autonomy Frustration; RIS = Relatedness Satisfaction; RIF = Relatedness Frustration; CmS = Competence Satisfaction; CmF = Competence Frustration.

3.3. Multiple-Group Confirmatory Factor Analysis

Once the factorial model of the scale with the best fit was found (6 factors and 24 items), a multiple-group approach was used to test measurement invariance across gender and different type of study.

Model 1 verified whether the proposed structure would have been the same among the groups. Since the excellent adaptation of the six-factor structure had been established independently for each group previously, configuration invariance could be expected to be supported. The adaptation indices confirmed this. As can be seen in Table 6, Model 1 provided a good fit to the data, both for sex and for the different types of studies, indicating that the factorial structure of the construct is the same between the groups. Since configural invariance was supported, the factor model coefficients were therefore constrained to be equal. Model 2 had good fit indices (RMSEA and SRMR < 0.06, CFI > 0.95). The chi-square test was significant, indicating that the imposition of the constraints (loadings with equal factors between the groups) resulted in statistically significant reductions in the adaptation of Model 2 with respect to Model 1. However, considering the other comparative fit indexes (ΔCFI , $\Delta SRMR$, $\Delta RMSEA$), the overall results indicate that the feasibility of the factor loading constraint is the same between the groups (sex and type of study). The scalar invariance model (Model 3) and the strict measurement invariance model (Model 4) also provide a good fit for the data. In fact, both for sex and for different types of studies, the general goodness of fit indexes and the tests for fit differences between consecutive models (Model 3 versus Model 2 and Model 4 versus Model 3) support all levels of measurement invariance.

Table 6. Fit statistics for invariance test.

Models	χ^2 (df)	χ^2/df	p	$\Delta\chi^2$	CFI (ΔCFI)	SRMR ($\Delta SRMR$)	RMSEA (90% C.I.) ($\Delta RMSEA$)
Sex							
Model 1: Configural Invariance	550.681 (474)	1.16	0.008	-	0.995	0.048	0.017 (0.009–0.023)
Model 2: Metric Invariance	579.953 (492)	1.17	0.004 *	29.27 **	0.994 (0.001)	0.049 (0.001)	0.018 (0.011–0.024) (0.001)
Model 3: Scalar Invariance	607.747 (510)	1.19	0.002	27.79 **	0.994 (0.000)	0.048 (0.001)	0.019 (0.012–0.024) (0.001)
Model 4: Strict Invariance	626.566 (534)	1.17	0.003	18.82 **	0.994 (0.000)	0.050 (0.002)	0.018 (0.011–0.024) (0.001)
Type of Studies							
Model 1: Configural Invariance	666.077 (711)	0.936	0.885		1.000	0.051	0.000 (0.000–0.008)
Model 2: Metric Invariance	777.986 (747)	1.04	0.210 **	111.91 **	0.998 (0.002)	0.055 (0.004)	0.011 (0.000–0.019) (0.011)
Model 3: Scalar Invariance	795.720 (783)	1.01	0.368	17.73 **	0.999 (0.001)	0.055 (0.000)	0.007 (0.000–0.017) (0.004)
Model 4: Strict Invariance	836.275 (831)	1.00	0.442	40.56 **	1.000 (0.001)	0.057 (0.002)	0.004 (0.000–0.016) (0.003)

Comparison: Model 1 vs. Model 2; Model 2 vs. Model 3; Model 3 vs. Model 4. ** $p < 0.001$; * $p < 0.005$.

4. Discussion

The main objective of this study was to analyze the psychometric properties of the BPNSFS scale in a large sample of university students in order to validate its use in the Spanish context. The results confirm the validity of this version. The results obtained were consistent with those provided in previous studies using different languages and cultures [34–38], which also reflected a six-factor solution, thus confirming our data; that is, the satisfaction and frustration of the three needs are best represented as different constructs.

Furthermore, this fact finds consensus, from a theoretical point of view, in the theory of basic psychological needs, according to which the need for frustration should not be considered simply as a lack of satisfaction, but as a different and separate construct [57]. Supporting this distinction is important, especially in the academic field, because it allows us to analyze the positive component in greater depth [35,58].

Several conclusions can be drawn from the present study. First, the analysis carried out has shown that the Spanish version of the BPNSFS has an adequate internal consistency, a Cronbach's alpha and McDonald's omega of 0.85 and 0.81 for the dimensions of the need satisfaction and frustration, respectively. For the six factors, the alpha and omega values ranged from 0.72 to 0.84. These results seem very similar to those indicated in the cross-validation process of the original scale, in particular, if we take into account the internal consistency found in Peruvian university students (alpha values range between 0.64 and 0.88) [34].

The results of the study show the existence of a negative and significant correlation between the factors that measure satisfaction and frustration of psychological needs, and a positive and significant correlation between the three components of the need for satisfaction, on the one hand, and the three components of frustration, on the other, confirming, once again, the six-factor structure proposed by Chen et al. [34].

Furthermore, as it was possible to demonstrate from the confirmatory factor analysis, the six-factor model presented a better fit of the model compared to the two-factor model. These values relate to previous studies carried out in different cultural contexts (for example, in Italy see Liga et al. [38]).

In this sense, and in the context of STD, the importance of motivation and its multidimensional nature are recognized with different levels located on a continuum, from the highest level of self-determination, with high intrinsic motivation, to the lowest level, in which there is a lack of motivation [27]. A construct of extreme importance since, as has been widely discussed, it plays a fundamental role in the psychological health of students, their academic performance, the decision to continue university studies, and in their career choices.

Furthermore, in the educational field, many researchers have provided sufficient evidence of the influence exerted by various psychological, social, institutional, and cultural variables on basic psychological needs [59,60]. As such, it is important to have a scale with adequate psychometric properties that measures these needs, to know the connection with these variables, and with the objective to identify different areas in which to intervene to improve the well-being of students and their desire to continue in the higher education system. The validation of the scale in the Spanish context that was carried out in this study further expands its possibilities of use.

However, we also have to consider some limitations. The first refers to the type of sample used. Although students of different degrees participated, they all belong to the same Autonomous Community, which makes it a fairly homogeneous sample. Future research to support the validity and reliability of the scale should expand the sample by incorporating other Autonomous Communities to reduce possible errors or biases. Another limitation is its cross-sectional nature and the lack of support that show convergent and/or divergent validity in other scales. Future research should explore the proposed factor structure and the relationship that could exist with other scales to analyze the influence of these factors on the well-being of students and their motivations.

5. Conclusions

In conclusion, the results of our study confirm the evidence that BPNSFS is a valid scale to assess basic psychological needs in the Spanish context, becoming a useful tool in the context of higher education, as it could help students in their professional career choices. Furthermore, presently, as the literature has widely demonstrated, research on basic psychological needs is an emerging but constantly growing field of study that has received attention from researchers around the world, this explains the assumed importance and the repercussions that psychological needs may have in parents, teachers, educators, and operators who play important roles in social relationships.

Going deeper into this field of study means beginning to shed light on all those variables that contribute, when satisfied, to the healthy growth of the individual or, conversely, to its discomfort. This means effectively contributing to the development of individuals who are active and competent actors in their lives.

Author Contributions: Conceptualization, G.M.C. and B.R.H.-S.; methodology, G.M.C. and B.R.H.-S.; software, G.M.C.; validation, G.M.C. and B.R.H.-S. and J.C.S.-G.; formal analysis, G.M.C.; investigation, G.M.C. and B.R.H.-S. and J.C.S.-G.; resources, G.M.C.; data curation, G.M.C.; writing—original draft preparation, G.M.C. and B.R.H.-S. and J.C.S.-G.; writing—review and editing, G.M.C. and B.R.H.-S.; visualization, G.M.C. and B.R.H.-S. and J.C.S.-G.; supervision, J.C.S.-G.; project administration, J.C.S.-G.; funding acquisition, J.C.S.-G. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by Consejería de Educación, Junta de Castilla y León, grant number J424.

Acknowledgments: The authors would like to thank the students that participated in the study and the Chair of Entrepreneurs University of Salamanca for administrative and technical support.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

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4.5 Publicación V: Factores psicológicos que disminuyen el impacto del COVID-19 en la intención de autoempleo de los estudiantes de administración de empresas y economía de América Latina



Hernández Sánchez, R. B., Cardella, G. M., & Sánchez García, J. C. (2020). Psychological Factors that Lessen the Impact of COVID-19 on the Self-Employment Intention of Business Administration and Economics' Students from Latin America. *International Journal of Environmental Research and Public Health*, 17, 5293. <https://doi.org/10.3390/ijerph1715529>.

Resumen

Entender qué factores, a nivel micro y macro, pueden influir en la intención emprendedora parece ser un aspecto crucial, especialmente hoy, en un contexto que puede percibirse como adverso e incierto, tras los efectos de la pandemia de coronavirus (Covid-19), que además de ser una emergencia de salud pública, representa un desafío para el trabajo. La pandemia tiene un efecto devastador y desproporcionado sobre los trabajadores jóvenes, su interés por el emprendimiento y su bienestar. Se necesita investigación para desarrollar programas útiles para mejorar las estrategias de afrontamiento y reducir los problemas que puedan surgir.

El objetivo de este estudio fue analizar la influencia que, un contexto percibido como incierto y adverso para la pandemia Covid-19, y las variables psicológicas (la satisfacción de necesidades psicológicas básicas, optimismo y proactividad) tienen sobre la intención emprendedora de los estudiantes universitarios. Además, se analizaron los efectos mediadores de la proactividad y el optimismo.

Este estudio se realizó en marzo de 2020 con 934 estudiantes universitarios de América Latina. Se construyeron modelos de análisis de regresión para examinar las relaciones entre la percepción de la pandemia de Covid-19, las variables psicológicas y la intención emprendedora. Se crearon modelos de mediación, utilizando el método bootstrap, para analizar los efectos de la proactividad y el optimismo.

Los resultados indicaron que la percepción de los estudiantes sobre el Covid-19 y las variables psicológicas influyen en la intención emprendedora, la primera en dirección negativa ($\beta = -0.013$, $p < 0.01$), las segundas en forma positiva (satisfacción de necesidades

psicológicas: $\beta = 0.35$, $p < 0.01$; proactividad: $\beta = 0.29$, $p < 0.01$; optimismo: $\beta = 0.16$, $p < 0.01$). Además, la proactividad y el optimismo mediaron estas relaciones (Tablas 7 y 8).

Tabla 7. Efecto total, indirecto y directo (Percepción de Covid-19-intención emprendedora)

Effect	β	S.E.	Boostrapping C.I. (95%)	
			Lower Bounds	Upper Bounds
Total Effect	-.21	.02	-.276	-.162
Covid-19 pandemic perc.- Proactivity - EI	-.04	.01	-.077	-.026
Covid-19 pandemic perc.- Optimism - EI	-.06	.01	-.091	-.035
Indirect Effect	-.11	.01	-.148	-.074
Direct Effect	-.12	.02	-.179	-.076

Beta coefficients are standardized. S.E.= Standardized Error

Tabla 8. Efecto total, indirecto y directo (Satisfacción de necesidades psicológicas básicas-intención emprendedora)

Effect	β	S.E.	Boostrapping C.I. (95%)	
			Lower Bounds	Upper Bounds
Total Effect	.58	.04	.495	.669
Ps. Need Satisfaction - Proactivity - EI	.19	.03	.124	.280
Ps. Need Satisfaction - Optimism - EI	.17	.04	.096	.272
Indirect Effect	.37	.05	.279	.482
Direct Effect	.27	.04	.178	.371

Beta coefficients are standardized. S.E.= Standardized Error

Este estudio confirma la importancia de los factores psicológicos para promover la intención emprendedora incluso en una situación percibida como adversa, como la pandemia. En general, cuanto mayor es la motivación, la capacidad de afrontar situaciones adversas y la orientación optimista hacia el futuro, mayor es la probabilidad de que las personas afronten con éxito un evento negativo o un momento de crisis como experiencia de aprendizaje, con repercusiones positivas sobre su salud psicológica. Como actores competentes, pueden desarrollar estrategias para cambiar el status quo y su futuro a través de la intención de elegir una carrera emprendedora.

Palabras Clave: Covid-19; Satisfacción de necesidades psicológicas; Optimismo; Proactividad; Bienestar; Salud mental; Intención emprendedora



Article

Psychological Factors that Lessen the Impact of COVID-19 on the Self-Employment Intention of Business Administration and Economics' Students from Latin America

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Received: 8 June 2020; Accepted: 20 July 2020; Published: 22 July 2020



Abstract: Background: The 2019 coronavirus disease epidemic (Covid-19) is a public health emergency of international concern and poses a challenge to the labor market. The pandemic has a devastating and disproportionate effect on young workers, their interest in entrepreneurship, and their mental health. Research is needed to develop evidence-based strategies to improve coping and reduce adverse psychological problems. The objective of this study was to analyze the impact that Covid-19 pandemic perception and psychological need satisfaction have on university students and their self-employment intention. In addition, we also analyzed the role of moderation played by psychological aspects. These psychological factors (i.e., Optimism and Proactiveness) can also improve young people's mental health and well-being. Methods: An explorative study (online survey) was conducted in March 2020 934 university students from Latin America. Regression analysis models were built to examine the relationships between Covid-19 pandemic perception, personality variables, and entrepreneurial intention. Mediation models, through the bootstrapping method, were performed to analyze the mediating role of proactiveness and optimism. Results: Results indicate that students' perception of Covid-19 and psychological need satisfaction are associated with entrepreneurial intention. Additionally, the present study argues that proactiveness and optimism mediate these relationships. Conclusions: This study identifies psychological factors associated with a lower level of Covid-19 impact and that can be used for psychological interventions that result in an improvement in the mental health of these vulnerable groups during and after the Covid-19 pandemic. Theoretical and practical implications are discussed.

Keywords: Covid-19; psychological need satisfaction; optimism; proactiveness; well-being; mental health; entrepreneurial intention

1. Introduction

Entrepreneurship is a determining factor for economic and social development [1,2], enhances the creation of wealth and value [3], and improves the well-being in nations [4]. Over the years, entrepreneurship has received a broad consensus in the academic and international communities on its importance, however, research on its relevance in uncertain and adverse situations is rather scarce [5].

Covid-19 (coronavirus disease 2019) is a serious disease caused by a new type of coronavirus (SARS-CoV-2) first detected in Wuhan, China in December 2019. The virus has spread rapidly throughout the world [6], registering more than 5,000,000 cases and more than 300,000 deaths. On 11 March 2020, with 114 countries involved, the WHO officially decreed a state of pandemic [7].

The Covid-19 pandemic is a violent shock both from a health-related point of view and also for the global economy, generating an unprecedented environment of high uncertainty [8].

States have already taken a series of budgetary and liquidity policy measures to increase the capacity of their health and economic systems, and to support particularly affected citizens and sectors, however, the outlook remains bleak.

For example, the coronavirus pandemic has a strong impact on physical and psychological health [9]. In China, 58.3% of subjects feel psychologically involved, showing a decrease in positive feelings and satisfaction with life [10].

This is echoed by the economic problems that can help influence people's quality of life. Social and economic factors are the drivers of the conditions in which people live. Employment, safety, income, education, social support, and discrimination factors account for around 40% of all health [11].

The idea that economic and social factors are related to the health and satisfaction of the individual provides a starting point for an economy that is more focused on human well-being.

Recent studies have considered well-being as the result of individuals' participation in the social, economic, political, and cultural processes of the community [12–14]. In an attempt to interact with people's lives, economic relationships are understood as integrated into a broader context. An approach in line with Polanyi's notion of economics as an established process [15].

According to the European Commission survey published on 6 May 2020, the economies of 72 member countries are expected to experience a 7.5% loss in 2020 and grow by about 6% in 2021. The shock to the EU economy is symmetric in that the pandemic has hit all member states, but both the drop in output in 2020 and the strength of the rebound in 2021 are set to differ markedly. Each Member State's economic recovery will depend not only on the evolution of the pandemic in that country but also on the structure of their economies and their capacity to respond with stabilizing policies. Furthermore, consensus estimates for the initial unemployment claims in the US were around 1.6 million in May, but the figure reached 3.28 million, a historically unprecedented figure, approximately five times greater than the largest weekly increase in the global financial crisis [16].

In China, the Covid-19 pandemic has had an impact mainly on Small and Medium Enterprises (SMEs). In February 2020, 30% of companies saw their revenues fall by more than 50%, while a third saw a decrease of 20–50%. Estimates also indicate that every ten days of job loss in the Chinese economy reduces quarterly GDP growth from 0.39% to 0.46% [17].

Latin America, used to facing negative external shocks, is today one of the areas most affected by the Covid-19 pandemic from an economic perspective. According to the Economic Commission for Latin America and the Caribbean (ECLAC), the economic performance registered in 2019 was poor, with a GDP growth of only 0.1%. Before the pandemic outbreak, the expected expansion for the region in 2020 was 1.3%, mainly driven by the recovery of the two main economies of the continent: Brazil and Mexico. Although it is extremely difficult to estimate the impact of the coronavirus on growth, several analysts argue that a recession of –2.5% to –5.2% in 2020 is a plausible outcome [18]. To this is added another problem: in Latin America, approximately 130 million workers (53% of the employed population) do so informally. High levels of informal work represent a great challenge.

According to Brück, Llussá, and Tavares [19], events such as wars, natural disasters, terrorist attacks, and pandemics have the potential to influence the expectations and perceptions of the population of entire countries and are generally associated with a decrease in investment and GDP, as well higher levels of uncertainty. Furthermore, they present challenges not only for existing companies but also for the creation of new businesses and commercial activities in general [20].

Given this reality that we are living with the Covid-19 pandemic, and which strongly influences our health, economy, and society, we ask ourselves how it will affect entrepreneurial development, specifically how it will affect potential entrepreneurs, our potential business creators. In the literature, the entrepreneurial intention has been considered the most immediate antecedent of business creation [21–25]. The entrepreneurial intention has been defined as a mental state that focuses the attention of individuals on performing certain behaviors related to business creation [26,27]. It is

not surprising that, due to their crucial role as a preliminary stage in the business creation process, researchers have focused their efforts on researching the factors that positively influence people's intention to start a business [28,29].

Despite the considerable contribution of the scientific literature on the processes that favor entrepreneurship, personality factors, and their relationship with the intention to start a business have not received enough attention in situations of uncertainty, catastrophes, pandemics, etc. [30–33].

Psychological need satisfaction, in previous researches, has been considered an interesting intrinsic motivational factor for understanding the business process [34] and that could act as a driver to face a crisis. The satisfaction of basic psychological needs has a positive effect on the well-being and growth of the individual, while the lack of satisfaction translates into low motivation and a feeling of discomfort that can even lead to the onset of mental illness. As many academics point out [35,36], the satisfaction (or lack thereof) of basic psychological needs depends on the environment in which the subject lives. In general, supportive environments promote well-being in a subject, while frustrating environments generate malfunction and discomfort [37].

Studies have analyzed these relationships in safe situations. Little or nothing is known of the effect they could have on situations perceived as dangerous. Furthermore, the perception of the pandemic itself could influence individuals' entrepreneurial intentions through the subjective perception of danger, blocking the positive behaviors, and frustrating the basic psychological needs satisfaction. This is one of the main objectives of this work, which tries to fill this gap in the literature.

In an environment perceived as uncertain and dangerous, the effect of Covid-19 pandemic perception and psychological need satisfaction may depend on additional factors. One of them is proactiveness.

Only in recent years have some studies shown a positive association between proactive personality and entrepreneurial intentions [38,39]. For example, in the study by Hansen et al. [40], proactiveness, which is related to the ability to find opportunities and possible solutions in uncertain situations, was considered one of the main factors that influence entrepreneurial intentions.

Ideologically connected with proactivity, optimism appears to also be considered (especially in adverse situations, such as the current pandemic) a particularly important factor for entrepreneurs to pursue their long-term goals [41,42]. Having a positive perspective on future results, focusing attention on positive stimuli, and avoiding those that are perceived as threatening leads to an increase in entrepreneurial intention and, consequently, predisposes the individual to implement a specific behavior [43] and generated well-being. A study by Kleiman et al., [44] demonstrated the multidimensional nature of optimism which appears to be related to fewer depressive episodes as a consequence of stressful and anxiety-provoking life events.

Given the historical period we are experiencing, characterized by the Covid-19 pandemic, we conducted this study to increase our understanding of the factors that influence entrepreneurial intentions in situations of crisis and uncertainty, examining, in particular, the influence of Covid-19 pandemic perception and psychological need satisfaction in entrepreneurial intentions, as well the possible mediating role of proactiveness and optimism.

Understanding the dynamics of these relationships is particularly important for the numerous governments and companies present in the area facing this economic shock. By understanding what drives entrepreneurial intentions in adverse conditions, we can design better programs to effectively improve business efforts.

To meet these goals, we conducted an explorative study with a sample of college students to examine the effects of Covid-19 pandemic perception, psychological need satisfaction, proactiveness, and optimism are in entrepreneurial intentions. In this work, we first develop the theoretical background of our research. Based on this, we present the hypotheses, which are then empirically tested with the data from a survey carried out in 934 university students. The methods are described in the next section, after which we provide the results of our empirical study. We conclude with a discussion of

the main results in relation to the previous literature, as well as suggest some recommendations for future policies and lines of research.

2. Literature Review and Hypothesis Development

Theoretical models that analyze the entrepreneurial process [45,46] emphasize the importance of personal, cognitive, and prescriptive factors to determine the probability that an individual would be willing to start a new business. Among the main factors related to entrepreneurial intentions are personality traits associated with entrepreneurs [30,31,33]. The results of previous studies suggest that personality traits substantially influence how entrepreneurs think, the objectives they set, and, through their actions, what they achieve [22,47].

In particular, previous studies have established that an entrepreneur generally has an optimistic orientation towards the future and seems more capable of finding opportunities and achieving the desired objectives [38,48,49].

This research will focus on four characteristics, namely proactiveness, optimism, the Covid-19 pandemic perception, and psychological need satisfaction, to quantify the relationship between these four traits of the students and their entrepreneurial intention. In summary, this approach will allow this research to determine the relative importance of the four business characteristics to predict the EI of students in an adverse situation. Despite literature supporting the link between psychological and personality factors and entrepreneurial intentions, these four characteristics have been ignored in the literature.

The four dimensions are briefly described below.

2.1. Entrepreneurial Intention

Entrepreneurial intention has been considered the most important predictor of behavior [46,50,51]. By intention, we can understand “a state of mind directing a person’s attention (and therefore experience and action) towards a specific object (goal) or a path to achieve something (means)” (Bird [52] p. 442). Intentions are related to a plurality of factors (beliefs, values, habits, needs) which also include cognitive factors, which can improve or decrease these intentions.

Over the years, different models of intentions have been developed in the field of entrepreneurship [45,52–55]. In general, scholars who have analyzed the gap between intentions and behaviors tend to consistently demonstrate this, as much as 39% of the variance in actual behavior can be explained by intentions [56–58]. Therefore, more than half of the variance remains unexplained. Several studies [52,56,58] have tried to remedy this lack, through the inclusion of some factors and moderators additional.

Some studies indicate that other predictors, on a personal or social level, may influence entrepreneurial intentions. For example, according to Krueger et al., [54] the intentions are developed from the perceptions of desirability and viability of the entrepreneurial action. After this, a situation perceived as uncertain or dangerous can influence a person’s intention to start a business. For example, considering the current pandemic situation, the perception of the lack of safety in travel, for commercial reasons, combined with the fact that many aspects of public and private life have become online [59], could have a negative impact on the viability of behavior. Krueger et al., [54] also argue that self-efficacy positively influences the viability of entrepreneurship and that the personal propensity to seek opportunities and act on these opportunities (proactiveness in this study) can facilitate the development of intentions. As proactivity is closely linked to identification opportunities, it plays an important role in encouraging new businesses.

In other words, in the case of contexts perceived as dangerous or adverse, other variables associated with the individual’s psychological, cognitive, and personality traits can still help develop entrepreneurial intentions.

Some studies on entrepreneurial intentions [60–64] have laid the foundations for a deeper examination of the intentions of people in situations of insecurity. Specifically, the strength of the

intention to become a self-employed person would depend on the tolerance that the subjects show for the risk and on their preference for independence.

2.2. Covid-19 Pandemic Perception

According to the approach of social-cognitive theory [65], the surrounding environment influences the behavior of the individual through personal perceptions. Not all people perceive the same situation with the same degree of severity. Taking these differences into account and understanding them is important to analyze behavioral responses, especially in adverse situations.

In the literature, few studies have focused on perceptions derived from an unsafe, dangerous, and risky environment, and the impact these perceptions can have on the intention of starting a business. For example, Gaibulloev and Sandler [66] suggest that terrorism and other violent events could hinder business growth by increasing business costs that reduce profits and returns, discouraging the creation of new businesses.

Among the few studies relating to dangerous situations, we find those related to the scenarios of war [67,68], terrorism [69], and natural disasters [70,71]. Currently, there is no empirical evidence that has analyzed the psychological and cognitive factors that could influence entrepreneurial intention in relation to a pandemic situation. Current studies have focused more on the general economic aspect [17,72].

To describe the literature on the subject, we will refer explicitly to the more general concept of perception of danger. Previous studies have shown the negative relationship between perception of danger and intention for business. Bullough, Renko, and Myatt [67] examined the effects of perceived danger, self-efficacy, and resistance on business intentions under unfavorable conditions during the war in Afghanistan. Their results suggest that perceived danger was negatively related to an individual's entrepreneurial intentions but marginally less among highly resistant individuals. Jahanshahi, Zhang, and Gholami [73] also in Afghanistan, studied the antecedents of the persistence of companies run by female entrepreneurs. The results showed that female entrepreneurs with a high level of internal locus of control have higher levels of resilience. Furthermore, the perceived danger and influence of supporting family businesses (the first negatively, the second positively) resulted in the persistence of female-led businesses.

These studies highlight the importance of the interaction of psychological, social, and environmental factors in shaping the entrepreneurial capacity of people in uncertain situations.

2.3. Psychological Need Satisfaction

Motivational factors have proven to be an important paradigm for the study of the determinants of an entrepreneurial career choice. On the one hand, personal motivational factors act to seek, through business, a possible form of self-realization and to escape the unemployment trap. On the other hand, there is a strong and profound interaction between family, social and institutional factors, within which the entrepreneurial career choice appears as a "response" linked to the satisfaction of basic psychological needs.

According to Self-Determination Theory (SDT) [74,75], motivation is a vital source that makes people persistent and active in implementing their behaviors [76]. Specifically, SDT classifies motivation on a continuum, ranging from extrinsic motivation to intrinsic motivation. What leads to intrinsic motivation is the satisfaction of three basic psychological needs conceptualized by SDT: autonomy, competence, and relatedness. It is argued that these needs are necessary for the well-being and persistence of behavior [77] and that they play a role in defining aspirations and, therefore, in professional choices [78]. When these needs are not met, intrinsic motivation will be hampered, which is called psychological need frustration [76,79] and, as a result, people could develop health problems and persist less in purposeful behaviors. Conversely, if these needs are met, they are more likely to engage persistently in entrepreneurial behavior [76]. In this case, we speak of the psychological need satisfaction, which is the factor we will refer to in the present study.

The perception of autonomy, of being competent, and of having a sense of closeness with others, is at the heart of entrepreneurial research, but, surprisingly, this has rarely been explored in previous studies on entrepreneurship, meaning the mechanisms behind motivations have been ignored [80]. However, the few studies carried out have highlighted its indisputable relevance. For example, Baluku et al., [81] found that the need for autonomy satisfaction is positively related to Entrepreneurial Intention (EI) and that business mentoring is related to EI in individuals who show higher levels of autonomy.

In an interesting study with university students in Yemen, Al-Jubari [82] tested the influence of satisfying the basic psychological needs of SDT on business intention through the factors of the theory of planned behavior. The results of the study support the theoretical integration of the model, in which the satisfaction of basic psychological needs has a positive effect on the attitude towards entrepreneurship, subjective norms, and perceived behavioral control and these, in turn, have a positive effect in the entrepreneurial intention.

2.4. Proactiveness

Bateman and Crant [83] discussed the importance of proactiveness in organizational behavior, defining it as the ability to achieve significant change in the environment by identifying opportunities. In reality, it is not just about important attributes of flexibility and adaptability towards an uncertain future. Being proactive is taking the initiative in improving business as well. For years, researchers have debated the nature of proactiveness. According to some scholars, it is a stable disposition of the individual [84], others have considered it a model of general behavior [85], and others, lastly, a specific attitude in the workplace [86].

In general, the proactive approach considers the possibility that individuals create their own environment, that behavior is controlled by factors internal and external to the individual, and that situations are a function of people and vice versa [87]. There are mutual causal links between the person, the environment, and the behavior [88], therefore, individuals can intentionally and directly change their current circumstances and given situations.

This proactive orientation has been discussed in the entrepreneurial process. Much research has found a significant relationship between proactive personality and entrepreneurial behavior [89–91], even during the economic crisis [92]. Shapero and Sokol [45] discussed a trend towards action and initiative to describe the social dimensions of business events. Krueger and Brazeal [93] included the concept of “propensity to act” in their study of business intentions and potential. Furthermore, Becherer and Maurer [94] related proactiveness with the decision to start a business, as well as with the legacy of a company.

Proactive personality has been linked to professional success [95,96] and as an employability asset [97,98]. Crant et al., [99] in the bibliographic review carried out on proactiveness in the organizational field, provide empirical evidence on a wide spectrum of favorable results linked to higher performance and innovation, emotional commitment, and job satisfaction.

Bell [100] in a study conducted with UK university students, showed that proactiveness, along with risk, are the key factors in positively influencing entrepreneurial intentions. Kumar and Shukla [101] have also achieved similar results. These studies confirm the importance that personality traits, such as proactiveness, have in the entrepreneurial intention.

2.5. Optimism

Optimism has been studied little in relation to entrepreneurial intentions. The few studies in the literature have suggested that optimism may play an important role in the entrepreneurial process [41,42,102]. In a crisis, optimistic entrepreneurs believe more in the success of their actions and, therefore, may be more likely to establish a new business [103]. Some have concluded that optimism is a key requirement for entrepreneurship [104,105].

Furthermore, as Krueger & Day [48] states: “Some of the most promising recent models of entrepreneurship focus on cognitive processes, showing the importance of an opportunity-friendly cognitive infrastructure” (p. 324). For example, Lee et al., [106] discovered that optimism is associated with self-confidence among students. Overall, positive attitudes toward entrepreneurship, such as a possible career choice, and confidence in one’s skills were found to be significantly related to entrepreneurial intentions. A few years earlier, Giacomini, Janssen, and Shinnar [107] found that the students who most expected positive results in entrepreneurship showed higher levels of business intentions. Furthermore, in general, employers have a greater tendency to be more optimistic than other workers [103,108]. However, as far as we know, only the studies by Bernoster et al. [109] and Madar et al. [105] documented a positive relationship between optimism and entrepreneurial intention among students.

In summary, despite the theoretically positive relationship suggested by the literature between optimism and entrepreneurial tendencies, little attention has been paid to the empirical investigation of the relationships between the two constructs [110].

3. Hypothesis

As discussed in the previous sections, this study is the first attempt to analyze entrepreneurial intentions in a pandemic situation.

First, through a representative sample of Latin American university students, this study aims to analyze the relationships between proactiveness, optimism, Covid-19 pandemic perception, psychological need satisfaction, and entrepreneurial intention in an adverse situation, as it is this current pandemic. Second, the current study focuses primarily on how the Covid-19 pandemic perception and need satisfaction mediate the predictive effects of student proactivity and optimism on entrepreneurial intention. Consequently, this study raises the following hypotheses:

Hypothesis 1: *The Covid-19 pandemic perception are negatively associated with entrepreneurial intentions (H1a) and Psychological Need Satisfaction are positively associated with entrepreneurial intentions (H1b).*

Hypothesis 2: *Proactiveness is positively related to entrepreneurial intentions.*

Hypothesis 3: *Optimism is positively related to entrepreneurial intentions.*

Hypothesis 4: *The relationship between Covid-19 pandemic perception and entrepreneurial intentions is mediated by the Proactiveness (H4a) and Optimism (H4b).*

Hypothesis 5: *The relationship between Psychological Need Satisfaction and entrepreneurial intentions is mediated by the Proactiveness (H5a) and Optimism (H5b).*

These hypotheses are represented in Figure 1.

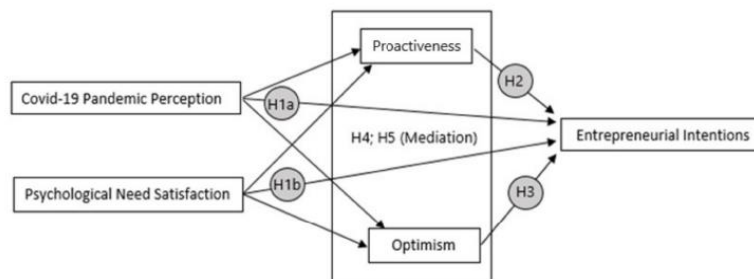


Figure 1. Conceptual model.

4. Materials and Methods

4.1. Sample and Procedure

To recruit participants, we contacted several professors from various universities in Latin America, to motivate their students and involve them in completing the questionnaire.

Our sample includes 934 university students from Latin American countries (45.6% from Ecuador, 45.3% from Panama and 9% from other countries), of whom 67.5% are female, and 32.5% male. Regarding the area of knowledge, most of the students are enrolled in the Faculty of Business and Administration (55.4%) and the Faculty of Economic Sciences (23.7%). The remaining 25% is enrolled in the faculty of Social and Health Sciences. The age range is between 18 and 69 years, with an average of 23.6 (SD = 5.94). With previous permission and authorization from authorities, the students were informed about the purpose of the study. The questionnaires were administered online, participation was voluntary, and the data were processed anonymously and confidentially following the ethical criteria established by the A.P.A. (American Psychological Association).

Considering the data collection method (online questionnaire), the only possible method due to the pandemic, the researchers were unable to check the characteristics of the sample, therefore it is not representative of the population studied (Latin America).

4.2. Measures

Self-report questionnaires were used to collect data on the study variables. The responses on all scales followed a 5-point Likert format ranging from strongly disagree (1) to strongly agree (5).

To measure Covid-19 pandemic perception, we created an ad hoc questionnaire. The scale consisted of 14 items: 7 items measure the impact of Covid-19 in the country, and the other 7 items measure the impact of the pandemic on the person itself surveyed. The country's scale did not show good internal consistency, probably because many of the students interviewed live far from their homelands. For this reason, we decided to use only the personal subscale. Examples of items were: "The Covid-19 negatively affects my future" or "The Covid-19 will decrease my job opportunities". The scale showed good validity with a Cronbach's alpha value of 0.884.

Psychological need satisfaction was measured using the version developed and validated by Chen et al. [35]. The scale has been translated into several languages, including Spanish. The entire scale is made up of 24 items, 12 to measure need satisfaction, and another 12 to measure need frustration. For our study, we decided to use the 12 items corresponding to the need satisfaction. Examples of some of these items are: "I feel free to choose the things I do", "I feel connected to the people who care for me and who are important to me". The scale has a Cronbach alpha value of 0.797.

Entrepreneurial intention was measured with the six-item scale of the Entrepreneurial Orientation Questionnaire (EOQ; COE in Spanish) [111]. Some items on this scale are: "I will make any effort to start and develop my own firm"; "I have thought very seriously about creating a firm." The scale showed a Cronbach alpha value of 0.926.

To measure proactive personality, the corresponding scale of the Entrepreneurial Orientation Questionnaire (EOQ; COE in Spanish) was used [112]. This scale is made up of 10 items and measures the tendency of the respondents to exhibit proactive behavior. The construction of this subscale was based on the work of Seibert et al. [95,113]. Some items on this scale are: "I am constantly looking for new ways to improve my life", "If I believe in an idea, no obstacle will prevent me from making it come true". The Cronbach alpha value for the scale was 0.874.

Finally, to measure optimism, we used the optimism scale of the PROE questionnaire [113]. The scale consists of 9 Likert-type items and measures the tendency of an individual to have positive expectations about the future. Examples of the items that make up the scale are: "I see the positive aspects of things"; "I think I will achieve the main goals of my life." The scale showed good reliability (Cronbach's alpha of 0.858).

In line with previous studies on entrepreneurship [114], data were collected on demographic variables such as age, sex, country, and faculty department.

4.3. Data Analysis

Data were analyzed using SPSS version 23 (IMB Corp., Armonk, NY, USA) and Amos version 23 (IBM Corp., Armonk, NY, USA). First, descriptive statistics were produced using standard means and deviations for all variables. Correlations between variables were evaluated using Pearson’s correlations. Hierarchical regression analyzes were performed to analyze the impact of the variables on entrepreneurial intention.

To examine the indirect effect of Covid-19 pandemic perception and Psychological Need Satisfaction on entrepreneurial intention through proactiveness and optimism, we used the bootstrap method. The key principle underlining the bootstrap procedure is that it allows the researcher to simulate repeated subsamples from an original database, allowing the stability of the parameter estimates to be evaluated and their values to be reported with a higher degree of precision. Bootstrap evaluates the indirect effect in each data set and establishes confidence intervals for each indirect effect [115].

In this study, we used the following indices to evaluate model fit: the comparative fit index (CFI) and the Bollen fit index (IFI), both with adequate values greater than 0.90 and the root mean square error of approximation (RMSEA) which must have a value of less than 0.08 [116,117]. The level of significance (*p*-value) will be 5%.

The acceptability of the measurement model was assessed by the reliability of individual items, internal consistency between items, the model’s convergent, and discriminant validity. The literature suggests 0.7 as the acceptable value for Cronbach’s Alpha. Average Variance Extracted (AVE) is higher than 0.5 but we accepted 0.4. According to Fornell and Larcker (1981) [118], if AVE is less than 0.5, but composite reliability is higher than 0.6, the convergent validity of the construct is still adequate.

For discriminant validity, the analysis can be performed by the square root of the AVE value. When the square root of the mean variance extraction rate (AVE value) of each measurement question is greater than the correlation coefficient between the variables, it indicates that there is a strong discriminant coefficient between the variables, that is, the difference between each measurement variable is better (see Tables A1 and A2).

5. Results

Before testing the hypotheses, the mean, standard deviations (SD), and correlations between the variables were calculated (Table 1). The average scores indicate that the students in our sample show medium to high levels of optimism, proactiveness, psychological need satisfaction, and entrepreneurial intention. The Covid-19 pandemic perception variable obtained the lowest score (*M* = 3.05, *SD* = 0.904).

Table 1. Means, standard deviations, and correlations among variables (N = 934).

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. EI	4.10	0.822	1								
2. Covid-19 Pandemic Perc	3.05	0.904	-0.24 **	1							
3. Psic. Need Satisf.	4.39	0.558	0.39 **	-0.21 **	1						
4. Proactiveness	4.00	0.510	0.45 **	-0.16 **	0.39 **	1					
5. Optimism	4.09	0.567	0.44 **	-0.23 **	0.51 **	0.65 **	1				
6. Gender	1.68	0.469	-0.05	0	0.03	-0.07 *	-0.02	1			
7. Age	23.62	5.94	0.06 *	-0.02	0.09 **	0.06 *	0.14 **	-0.04	1		
8. Countries	2.16	2.28	0.08 **	-0.12 **	-0.02	0.06	0.03	0.06 *	0.06	1	
9. Faculties	2.61	1.63	-0.03	-0.01	0.01	-0.01	0.01	-0.07 *	0.02	-0.03	1

* *p* < 0.05; ** *p* < 0.01.

The dependent variable, entrepreneurial intention, was significantly and negatively correlated with Covid-19 pandemic perception (*r* = -0.24, *p* < 0.01), suggesting that high levels of pandemic perception negatively affect its career choice. Psychological Need Satisfaction (*r* = 0.39, *p* < 0.01),

Proactiveness ($r = 0.45, p < 0.01$) and optimism ($r = 0.44, p < 0.01$) were positively and significantly related to entrepreneurial intentions. These results give us initial support of our hypotheses.

Asymmetry and kurtosis were calculated under the assumption of normal data distribution. All univariate asymmetry values varying between 0.367 and -2.04 , while kurtosis values, which must vary between -0.063 y 4.70 , thus, meeting with the univariate normality criterion [119]. In accordance with “For sample sizes greater than 300, depend on the absolute values of skewness and kurtosis without considering z-values”. Either an absolute skew value larger than 2 or an absolute kurtosis (proper) larger than 7 may be used as reference values for determining substantial non-normality” (Hae-Young [119] p. 53).

Given that the variables of our study show significant correlations, variance inflation factors (VIF) were calculated to investigate multicollinearity. All VIF values were well below the threshold of 2.5 [120]. Furthermore, none of the correlations exceeded 0.7 [121].

We can, therefore, conclude that multicollinearity is not an issue in this analysis.

The next step of data analysis was to test the goodness-of-fit of the model, using the AMOS Graphics 23.0 software. The fit indices for the proposed model were: $\chi^2 = 2,763,073, df = 806, p < 0.01, CFI = 0.90, IFI = 0.90, RMSEA = 0.05$. The confirmatory factorial analysis showed an adequate adaptation of the data to the model. Although the chi-square was significant ($\chi^2 (806) = 2,763,073, p < 0.01$), due to the large sample size, the other adaptation measurements made confirmed good compatibility.

To examine whether the variables in our study predicted entrepreneurial intention in a statistically significant way, a hierarchical regression analysis was performed (Table 2). The first model includes the control variables: gender, age, country of origin, and faculty department. All variables had a significant effect on business intentions. In model 2, we added the independent variables. As the results show, Covid-19 pandemic perception ($\beta = -0.013, p < 0.01$) is negatively related to entrepreneurial intentions and Psychological need satisfaction, ($\beta = 0.35, p < 0.01$) is positively related to entrepreneurial intentions, which supports hypothesis 1. Furthermore, the relation of intention with Proactiveness (Model 3) was positive ($\beta = 0.29, p < 0.01$), providing support for hypothesis 2. Lastly, model 4 supported hypothesis 3. Optimism was positively related to entrepreneurial intentions ($\beta = 0.16, p < 0.01$).

Table 2. Results of regression models—dependent variable = entrepreneurial intention.

Variables	Model 1 (Control)	Model 2 (Hypothesis 1)	Model 3 (Hypothesis 2)	Model 4 (Hypothesis 3)
Gender	-0.06 *	-0.07 **	-0.05	-0.05
Age	0.09 **	0.05 *	0.04	0.02
Countries	0.011 **	0.10 **	0.07 **	0.07 **
Faculty	-0.25 **	-0.20 **	-0.17 **	-0.17 **
Covid-19 Pandemic Perception		-0.13 **	-0.11 **	-0.09 **
Psychological Need Satisfaction		0.35 **	0.22 **	0.18 **
Proactiveness			0.29 **	0.20 **
Optimism				0.16 **
R-square	0.076	0.235	0.302	0.315
Adjusted R-square	0.072	0.230	0.296	0.309
Std. Error	0.79	0.72	0.68	0.68
F-value	18.88 **	47.17 **	56.84 **	52.95 **

** $p < 0.01$; * $p < 0.05$. Beta coefficients are standardized.

To calculate the mediation effect by the Proactiveness and Optimism (H4 and H5), the bootstrap method was used according to the recommendations of Preacher and Hayes [115]. During the mediation test, bootstrap was performed with 5000 iterations and the bias-corrected confidence interval was adjusted to 95%. If the 95% confidence interval does not include 0, then the mediation effect is considered statistically significant at the level = 0.05. Table 3 presents the relationship between Covid-19 pandemic perception and entrepreneurial intentions fully mediated by Proactiveness and Optimism. This is indicated by a significant total effect, which is the sum of the direct and indirect effects ($\beta = -0.21$; C.I. $[-0.276; -0.162]$). At the same time, the specific indirect effects also seem significant (through Proactiveness: $\beta = -0.04$; CI $[-0.077; -0.026]$; through Optimism: $\beta = -0.06$;

C.I. [−0.091; −0.035]), as well as the direct effect of Covid-19 pandemic perception on entrepreneurial intentions ($\beta = -0.12$; CI [−0.179; −0.076]). For this reason, the H4 hypothesis was confirmed.

Table 3. Total effect, indirect effect, and direct effect Covid-19 pandemic perception—entrepreneurial intentions.

Effect	β	S.E.	Bootstrapping C.I. (95%)	
			Lower Bounds	Upper Bounds
Total Effect	−0.21	0.02	−0.276	−0.162
Covid-19 pandemic perception—Proactiveness—EI	−0.04	0.01	−0.077	−0.026
Covid-19 pandemic perception—Optimism—EI	−0.06	0.01	−0.091	−0.035
Indirect Effect	−0.11	0.01	−0.148	−0.074
Direct Effect	−0.12	0.02	−0.179	−0.076

Beta coefficients are standardized. S.E. = Standardized Error.

For hypothesis H5 (Table 4), we confirm that the relationship between Psychological Need Satisfaction and entrepreneurial intentions is mediated by the paths Proactivity ($\beta = 0.19$; CI [0.124; 0.280]) and Optimism ($\beta = 0.17$; CI [0.096; 0.272]). Again, both the total effect ($\beta = 0.58$; C.I. [0.495; 0.669]) and the direct effect ($\beta = 0.27$; C.I. [0.178; 0.371]) are positive and significant. We can conclude that hypothesis 5 was confirmed.

Table 4. Total effect, indirect effect, and direct effect psychological need satisfaction—entrepreneurial intentions.

Effect	β	S.E.	Bootstrapping C.I. (95%)	
			Lower Bounds	Upper Bounds
Total Effect	0.58	0.04	0.495	0.669
Ps. Need Satisfaction—Proactiveness—EI	0.19	0.03	0.124	0.280
Ps. Need Satisfaction—Optimism—EI	0.17	0.04	0.096	0.272
Indirect Effect	0.37	0.05	0.279	0.482
Direct Effect	0.27	0.04	0.178	0.371

Beta coefficients are standardized. S.E. = Standardized Error.

6. Discussion

Understanding what factors contribute to support entrepreneurship as a career choice in a crisis seems to be of fundamental importance as it translates into the desire for growth and resilience that people can face when faced with an adverse situation.

Specifically, we hypothesized that proactiveness and optimism would mediate negative relationships between Covid-19 pandemic perception and intention, and the positive relationship between Psychological Need Satisfaction and entrepreneurial intention. Our results support the mediation hypotheses and suggest that optimism and proactiveness are particularly important in the entrepreneurial process. Furthermore, we found that Psychological Need Satisfaction supports entrepreneurial intention, but also that the Covid-19 pandemic perception hinders them.

Our model, and the results obtained, are a first attempt to close the gap in our knowledge of what drives entrepreneurship in highly adverse conditions (for example, in economies subject to pandemics).

Our suggested mediation model expands on previous literature, which is mainly focused on the direct relationship between personality and intentions [38]. In particular, the current study joins the few studies in the literature about possible mediation processes that influence the relationship between personality and entrepreneurial behavior [105,122] in situations perceived as negative and high in uncertainty.

In addition to its positive and direct effect on intentions, proactiveness, and optimism interact with the pandemic's perception and with psychological need satisfaction. Furthermore, and this is an important contribution of this study, optimism and proactiveness attenuate the negative relationship between Covid-19 perception and intentions. Optimism and proactiveness significantly strengthen the positive relationships with entrepreneurial intention, indicating that both traits are important to understand entrepreneurship given dangerous situations such as a pandemic scenario.

As such, according to this study, influencing the entrepreneurial intention of students (potential entrepreneurs), who are hampered by the pandemic situation, means analyzing the psychological and social factors that influence intentions and understanding how they relate to entrepreneurial behavior in the practice. Previous studies have demonstrated a positive influence of proactive personality on entrepreneurial intentions [89]. Therefore, it is highly important to appreciate proactive traits in students so that they can think of entrepreneurship as a possible career option.

We have also shown that optimism is significantly and positively related to entrepreneurial intentions, specifically in difficult times. This importance of optimism for the development of entrepreneurial intentions complements previous studies in which entrepreneurs have been considered individuals who remain optimistic and persist even in adverse situations [123,124].

However, it should be noted in this regard that studies have not always produced consistent results in the literature [108,125]. While some studies have found a positive relationship between optimism and entrepreneurial orientation [108], others have found a negative one [126]. These latest studies have concluded that excessive optimism may be a factor behind wrongful decisions with high levels of risk-taking. However, the conclusions of James and Gudmundsson [127], in line with our study, suggest that moderate levels of optimism have a positive impact on the entrepreneurial process and, consequently, increase the chances of success for a new company.

Furthermore, our results are in line with psychological theories that suggest having an optimistic orientation (positive psychology) and an ability to find alternative solutions are valuable psychological resources that can help deal with stress and facilitate coping strategies [128], especially during crises.

An environment that is perceived as highly dangerous and uncertain is negatively related to the intentions for starting a business of its people. However, the individual perception of a negative situation differs between individuals, with different consequences for their intentions [54].

Certainly, beyond individual specificities, what must be taken into account is the role that the variables of our study have in entrepreneurial intentions.

Previous research has described proactiveness as a resource that people can mobilize in a time of stress or adversity, which allows them to overcome the barriers of various areas of life [129,130]. It seems that having optimistic thoughts about the future is an important factor, especially in uncertain situations. It appears that these effects may have a similar role in the entrepreneurial spirit, allowing the development of entrepreneurial intention in environments of uncertainty.

This study presents an innovative approach because it examines the psychological aspects of entrepreneurial intention in a pandemic situation. Furthermore, our work confirms previous studies that also show the positive role of need satisfaction, which acts as an accelerator of an entrepreneurial initiative by increasing entrepreneurial intention. In this way, it joins the growing literature that explores how basic psychological needs act as motivational drives that positively influence one's future, including career choice [34]. Our findings have shown that satisfaction of needs is positively related to entrepreneurial intentions in support of the consensus that, to be successful, an entrepreneur must express and use various skills, including those aimed at satisfying his needs and at achieving your own well-being in general [82,131].

Our results come from a sample of Latin American students who are experiencing the consequences of the pandemic, and for whom decisions about ways to rethink their future, including work and entrepreneurship, are important. The entrepreneurial intention in our sample is high. This result is not entirely surprising, both, because of the specificity of the sample composed mainly of students from the business and management and economics fields, but also because of the high rates of youth

unemployment that affect the areas of Latin America, which stands at 14% [132], and for which job opportunities seem limited and entrepreneurship represents a solution capable of generating higher economic returns than alternative job opportunities. According to the Multilateral Investment Fund (a member of the Inter-American Development Bank), small and medium-sized enterprises (SMEs) are responsible for 66% of jobs worldwide, on average [133].

In general, the stronger the ability to cope with adverse situations and the greater their optimistic orientation towards the future, their proactiveness and the satisfaction of their basic needs, the greater the probability that people will successfully face a negative event or moment of crisis as a learning experience [134], with positive repercussions on their psychological health. As competent actors in their future, they can develop intentions to change the status quo of the communities in which they live by undertaking entrepreneurial initiatives.

This study has some limitations. First, in this study, one limitation concerned how the sample was recruited. The fact that we contacted the professors for the recruitment of the participants did not allow us to monitor their characteristics, generating an unrepresentative sample.

In addition, the use of self-report data and a single method of data collection raises questions about the variation of the method. However, multicollinearity was not a problem in our study, so we believe that according to Siemsen et al. [135] should not inflate the meaning of the interaction effects.

Furthermore, data collection at a time like this has created certain problems for the research team. The online administration method dictated the use of scales with few items, focusing the research objectives on analyzing the variables considered more important for hypothesis purposes. This could probably be a limitation since longer scales could have led to more robust results [136].

This study could represent a limitation for those who are specifically interested in analyzing entrepreneurial behavior (not simply intention). However, the link between intention and behavior has been widely documented in the literature [21,52,137]. We believe that future research that also focuses on behavior could help improve our understanding of the intention-behavior relationship, even under critical conditions.

Our study offers important implications for all those who are called to promote entrepreneurship in notoriously difficult situations, such as in economic crises. All governments are making great efforts to face the economic crisis and help countries to overcome the challenges that the pandemic situation has imposed. Institutional support seems important both to preserve the businesses present in the area and to launch new businesses that could work as a solution to the discouragement that the current pandemic is generating. Therefore, the main objective of these adverse conditions should be based on creating a social and institutional environment that potential entrepreneurs can perceive as safe.

Economic growth has raised living standards worldwide. Modern economies have often used the standard metric of economic growth, the Gross Domestic Product (GDP), as a unit to indicate the development of a nation, combining its economy with the well-being of society. As a result, policies leading to economic growth are considered beneficial for society. Furthermore, considering the close relationship between health and economic growth, this study represents a moment of reflection about the psychological factors that can influence people's lives and their well-being.

When the environment is uncertain, people are likely to draw on their skills and develop entrepreneurial intentions when they believe they have the skills to find alternative solutions to overcome obstacles (to be proactive) by taking advantage of more positive aspects of the situation (to be optimistic). Proactiveness helps people focus on long-term goals and productive activities, even when times are tough. Of course, improving people's confidence about the future and their proactive behavior does not guarantee that they will be successful as entrepreneurs, it only increases the probability that they will consider an entrepreneurial path.

For example, since both proactiveness and optimism can be encouraged, entrepreneurship study programs should be intensified within schools and universities [138]. For example, educators should work directly training students and promoting curriculum projects that foster the development of useful personal skills to develop an entrepreneurial mindset [139]. These activities are particularly important

in developing high standards of personal performance and expectations for performance-based results [140]. Entrepreneurship and education, if interconnected, have extraordinary potential because by developing the human capital necessary to build the society of the future, as they generate employment and economic growth [141].

In addition to the contribution of this study to the importance of the social and institutional sphere; and the acquisition of skills among young people, these results also have important implications at the organizational level. Times of crisis can become an opportunity for enterprises to become more innovative. Faced with outside pressures, the challenge for business leaders is to break out of their comfort zone and routine to become creative problem solvers and rediscover their entrepreneurial spirit. Generating innovation in companies in a constantly changing market is essential for the survival and success of a company. As Tellis [142] suggested, the key to innovation is human capital, therefore, understanding these elements of personality that drive innovation among employees will certainly contribute to the success of businesses.

7. Direction for Future Research

Longitudinal research analyzing who has embarked on an entrepreneurial career in situations characterized by uncertainty and adversity is an important direction for future research, especially given the importance of entrepreneurship for the economic and sustainable development of a community.

In this study, we analyze the perceived effects of the Covid-19 pandemic in a specific context (Latin America). Naturally, the perception of the pandemic can be felt differently in many other parts of the world. An interesting path for future research could include analyzing several nations so that the results can be compared with countries with different economies, as well as with countries that are considered entrepreneurial-friendly. Such research could address issues related to the importance of proactiveness and optimism based on the level of perceived adversity, and if whether the most proactive and optimistic entrepreneurs are the ones who are best able to overcome the challenges posed by the pandemic.

8. Conclusions

This study is particularly important in the current moment of international economic crisis as a consequence of the Covid-19 pandemic as it involves the production structures of many countries, which are at risk of an implosion in terms of economic growth, the most evident effects of which they can already be seen in the processes of a reduction in the labor market of numerous employees, and by the increasing phenomena of discouragement and/or resignation from job participation, especially in younger generations.

Our study found that the perception that university students have of the Covid-19 pandemic is decreasing their intentions to start a business, with repercussions on their psychological needs. How can we solve this? In our study, we have considered two personality traits that manifest themselves as keys to enhancing the intention to undertake in this specific situation: proactiveness and optimism. These traits can dampen the effect of Covid-19's negative perception on the intention to start a business, and also enhance the well-being and mental health of these young people to be able to self-employ.

Author Contributions: Conceptualization, B.R.H.-S., G.M.C., and J.C.S.-G.; methodology, B.R.H.-S. and G.M.C.; software, B.R.H.-S., G.M.C., and J.C.S.-G.; validation, B.R.H.-S.; formal analysis, G.M.C.; investigation, G.M.C. and B.R.H.-S.; resources, B.R.H.-S.; data curation, B.R.H.-S.; writing—original draft preparation, G.M.C.; writing—review and editing, G.M.C. and B.R.H.-S.; visualization, G.M.C., B.R.H.-S., and J.C.S.-G.; supervision, J.C.S.-G.; project administration, J.C.S.-G.; funding acquisition, J.C.S.-G. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by Chair of Entrepreneurship, Department of Social Psychology and Anthropology, University of Salamanca and Consejería de Educación, Junta de Castilla y León, grant number J424.

Acknowledgments: The authors would like to thank the students that participated in the study and the Chair of Entrepreneurs University of Salamanca for administrative and technical support.

Conflicts of Interest: The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

Appendix A

Table A1. Reliability analysis of variables.

Latent Variables	Items Statistics			
	Construct Items	Mean	Std. Deviation	Loadings *
Covid-19 Pandemic Perception	Covid1	2.53	1.09	0.576
	Covid2	3.25	1.16	0.773
	Covid3	2.84	1.16	0.870
	Covid4	3.58	1.07	0.725
	Covid5	2.77	1.18	0.817
	Covid6	3.39	1.12	0.744
Need Satisfaction	Sat1	4.27	0.933	0.618
	Sat2	4.28	0.898	0.824
	Sat3	4.24	0.955	0.739
	Sat4	4.09	1.06	0.598
	Sat5	4.45	0.923	0.669
	Sat6	4.51	0.821	0.900
	Sat7	4.37	0.880	0.768
	Sat8	4.57	0.756	0.698
	Sat9	4.57	0.721	0.855
	Sat10	4.53	0.792	0.743
	Sat11	4.43	0.795	0.718
Optimism	Opt1	4.41	0.714	0.594
	Opt2	4.24	0.834	0.722
	Opt3	3.65	0.915	0.475
	Opt4	4.21	0.728	0.664
	Opt5	4.01	0.850	0.672
	Opt6	4.11	0.741	0.730
	Opt7	4.17	0.766	0.688
	Opt8	4.05	0.863	0.672
	Opt9	4.01	0.833	0.744
Proactiveness	Proact1	4.26	0.719	0.661
	Proact2	3.72	0.904	0.626
	Proact3	4.47	0.673	0.573
	Proact4	4.04	0.768	0.546
	Proact5	4.00	0.835	0.609
	Proact6	4.05	0.802	0.709
	Proact7	3.79	0.774	0.711
	Proact8	4.22	0.632	0.691
	Proact9	3.90	0.788	0.629
	Proact10	3.54	0.817	0.570
Entrepreneurial Intention	Entr Int1	3.95	0.953	0.609
	Entr Int2	4.16	0.942	0.743
	Entr Int3	4.17	0.919	0.862
	Entr Int 4	4.14	0.968	0.929
	Entr Int 5	4.05	1.00	0.860
	Entr Int 6	4.15	0.986	0.915

Note. * Standardized Regression Weight.

Table A2. Discriminant validity among latent variables.

Latent Variables	AVE	Cronbach's Alpha	Composite Reliability	Covid-19	Need Satisf.	Optimism	Proactiv.	Entrepren. Intention
Covid-19	0.5721	0.884	0.8617	0.75637				
Need Satisf.	0.5543	0.797	0.9446	−0.230	0.74451			
Optimism	0.4448	0.858	0.9153	−0.109	0.624	0.66693		
Proactiveness	0.4032	0.874	0.9142	0.013	0.206	0.635	0.63498	
Entrep. Intent.	0.6843	0.926	0.9331	−0.121	0.175	0.133	0.250	0.82722

Note. The bold number is the square root of AVE. The bold numbers listed diagonally are the square root of the variance shared between the constructs and their measures. The off-diagonal elements are the correlations among the constructs. For discriminate validity, the diagonal elements should be larger than the off-diagonal elements.

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Capítulo 5

Discusión y Conclusiones

5.1 Discusión de los resultados

En este apartado se hace referencia a los resultados derivados de esta Tesis Doctoral, para que se agrupen según los objetivos (generales y específicos) iniciales y respondan a las hipótesis asociadas a estos objetivos.

Como se ha demostrado ampliamente, la intención es el antecedente más importante del comportamiento emprendedor (Ajzen, 1991). Sin embargo, existe mucha evidencia empírica que ha señalado que los modelos clásicos de intención emprendedora explican solo el 28% de la varianza del comportamiento (Sheeran, 2002), dejando que otras variables entren en juego en el proceso emprendedor. Por ello, en esta Tesis Doctoral se han analizado algunas de las variables que pueden ser capaces de reducir la brecha intención-comportamiento para alcanzar una comprensión más integral del objeto de estudio.

5.1.1 La influencia de la familia en la intención emprendedora

El primer artículo tuvo como objetivo investigar la literatura sobre el papel de la familia en la intención emprendedora. Específicamente, se ha planteado la hipótesis de una relación positiva entre el apoyo familiar percibido y la intención emprendedora (H1).

Con referencia específica a los artículos que forman parte de la publicación I, de 92 artículos totales, el 22,6% analizó el rol de la familia en relación con la intención emprendedora, principalmente en términos de apoyo (Bignotti y Le Roux, 2016; Shen et al., 2017; Sher et al., 2017; Evansluong y Ramírez-Pasillas, 2019) y modelos de rol, haciendo comparaciones entre las intenciones emprendedoras de los jóvenes con padres emprendedores y las intenciones emprendedoras de los hijos con padres que trabajan como funcionarios públicos (Hoffmann et al., 2015; Morales-Alonso et al., 2016; Tarling et al., 2016; Entrialgo e Iglesias, 2017).

Por ejemplo, un estudio de Chlosta et al. (2012) realizado con 461 estudiantes universitarios mostró que los modelos de rol de los padres aumentan la probabilidad de que las personas se conviertan en trabajadores autónomos. Pablo-Lerchundi et al. (2015), por su parte, mostró que la profesión que ejercen los padres influye en las intenciones emprendedoras de los estudiantes, quienes tienen más probabilidades de optar por una carrera emprendedora si sus padres son emprendedores que los hijos de funcionarios

públicos; a las mismas conclusiones llegaron Morales-Alonso et al., (2016), que demostraron en su estudio que los padres que poseen un negocio promueven la intención emprendedora y actitudes relacionadas en sus hijos. Al contrario de los funcionarios públicos que se identifican como un modelo de rol negativo, ya que obstaculizan tanto las actitudes como las intenciones emprendedoras (Fig. 7).

Figura 7. Artículos de la revisión sistemática de la literatura sobre el papel familiar y la intención emprendedora

Autor(es) y año	Título	Muestra	Relaciones entre variables
Evansluong & Ramirez-Pasillas (2019)	The role of family social capital in immigrants' entrepreneurial opportunity creation processes	4 casos de empresarios inmigrantes del Líbano, Siria, Camerún y México	Tres tipos de capital social familiar, deberes familiares, confianza familiar y apoyo familiar, fueron relevantes para la creación de oportunidades. Los deberes familiares desencadenaron el proceso de formación de una idea emprendedora, este proceso fue anticipado por la existencia de la confianza familiar. El apoyo familiar fue, por tanto, la piedra angular de la intención emprendedora.
Odoardi et al., (2018)	Effects of beliefs, motivation and entrepreneurial self-efficacy on entrepreneurial intentions: The moderating role of family support	446 estudiantes de cuatro escuelas secundarias diferentes	La autoeficacia media parcialmente el efecto de las creencias y motivaciones sobre la intención emprendedora. Esta mediación está moderada por el apoyo familiar, que también está directamente relacionado con las intenciones.
Shen et al., (2017)	Does family support matter? The influence of support factors on entrepreneurial attitudes and intentions of college students	473 Estudiantes Universitarios	El apoyo familiar percibido influye positivamente en la Deseabilidad y Facilidad Percibidas para iniciar un negocio
Enríquez & Iglesias (2017)	Are the Intentions to Entrepreneurship of Men and Women Shaped Differently? the Impact of Entrepreneurial Role-Model Exposure and Entrepreneurship Education	338 Estudiantes Universitarios (último año)	La exposición a los modelos de rol de los padres tiene una influencia significativamente más favorable en la actitud hacia el emprendimiento en las mujeres que en los hombres.
Sher et al., (2017)	An investigation of entrepreneurial intentions of agricultural students	120 estudiantes de agricultura	El resultado mostró que el género (masculino), la educación emprendedora, la actitud, el apoyo familiar, la aceptación mental y el control conductual percibido se relacionaron significativamente (positivamente) con las intenciones emprendedoras entre los estudiantes.
Edelman et al., (2016)	The impact of family support on young entrepreneurs' start-up activities	12.399 Estudiantes universitarios (19 países)	El capital social familiar, entendido como apoyo emocional e instrumental, se asocia positivamente con los propósitos de la puesta en marcha. La cohesión familiar amplifica el efecto del capital social familiar.
Tatling et al. (2016)	Influence of early exposure to family business experience on developing entrepreneurs	Higher Education – Business and Community Interaction Survey (HEBCIS) data	Los modelos de rol de los padres influyen en los miembros de la familia desde una edad temprana. La evidencia sugiere que la familia es una influencia positiva de la intención emprendedora y una fuente de valores sólidos para los emprendedores nacientes.

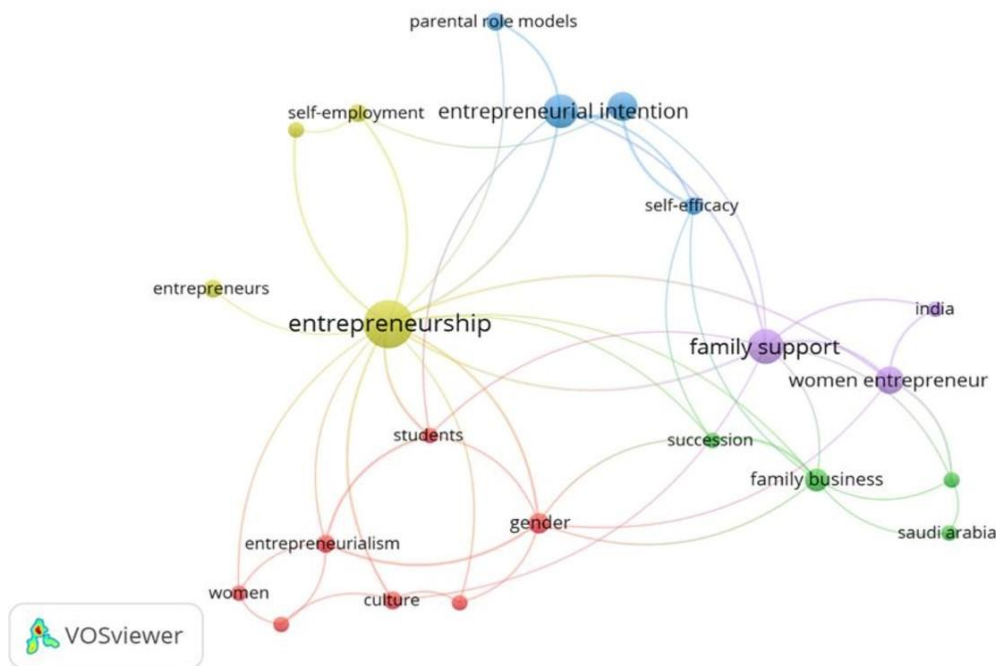
Morales-Alonso et al. (2016)	An Empirical Study on the Antecedents of Knowledge Intensive Entrepreneurship	851 Estudiantes de ingeniería	Los padres que poseen una empresa fomentan la intención emprendedora y las actitudes relacionadas en sus hijos/hijas. Por el contrario, los funcionarios públicos se identifican como un modelo de rol negativo, lo que obstaculiza tanto las actitudes como las intenciones emprendedoras.
Mbuya & Schachtebeck (2016)	Future entrepreneurs: does the field of study matter? A comparison of students in a South African urban environment	603 Estudiantes Universitarios (86 Facultad Administración; 517 otras facultades)	El apoyo familiar es un factor importante que influye en la intención emprendedora de los estudiantes, tanto entre los matriculados en una titulación empresarial como para los estudiantes matriculados en una titulación no empresarial.
Bignotti & le Roux (2016)	Unravelling the conundrum of entrepreneurial intentions, entrepreneurship education, and entrepreneurial characteristics	827 Alumnos de secundaria	El apoyo de la familia influye en las intenciones emprendedoras. Además, la educación emprendedora modera la influencia del apoyo familiar en las intenciones emprendedoras en una dirección positiva.
Hoffmann et al. (2015)	Running in the family: parental role models in entrepreneurship	Base de datos integrada mercado laboral en Statistics Denmark	El efecto de un padre (madre) autónomo es mucho mayor para los hombres (mujeres). Esto indica un papel importante de los modelos de rol de los padres en la intención emprendedora de los hijos.
Goyanes (2015)	Factors Affecting the Entrepreneurial Intention of Students Pursuing Journalism and Media Studies: Evidence from Spain	310 Estudiantes	Asociación positiva entre la intención emprendedora y los modelos de rol de los padres. La probabilidad de que los niños se conviertan en trabajadores por cuenta propia es mayor en las familias donde los padres trabajan por cuenta propia que en las familias en las que los padres no trabajan por cuenta propia.
Pablo-Lerchundi et al. (2015)	Influences of parental occupation on occupational choices and professional values	851 Estudiantes de ingeniería y arquitectura	La exposición a los modelos de rol de los padres es un factor determinante en el desarrollo de opciones ocupacionales, valores profesionales e intenciones y comportamientos emprendedores. Los padres que trabajan por cuenta propia fomentan las intenciones emprendedoras en sus hijos, mientras que los padres que son funcionarios públicos son modelos emprendedores negativos.
Pruett (2012)	Entrepreneurship Education: Workshops and Entrepreneurial Intentions	102 participantes en una serie de talleres de educación emprendedora	La exposición a modelos de rol y la solidez del apoyo familiar no influyeron significativamente en las intenciones emprendedoras.
Chlosta et al. (2012)	Parental role models and the decision to become self-employed: The moderating effect of personality	461 Estudiantes Universitarios	Los resultados muestran no solo que la presencia de un modelo de rol de los padres aumenta la probabilidad de que los individuos se conviertan en trabajadores por cuenta propia, sino que la influencia de los modelos también depende de la apertura del individuo.

Fritsch & Rusakova (2012)	Self-employment after socialism: Intergenerational links, entrepreneurial values, and human capital	German Socio-Economic Panel	Los resultados sugieren una relación significativa y positiva entre la presencia de un modelo d rol de los padres y la decisión de convertirse en autónomos para las personas con menos educación (alemanes orientales). Para los alemanes occidentales, la relación positiva se mantiene independientemente del nivel de educación.
Schoon & Duckworth (2012)	Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship	6.116 Jóvenes	Para las mujeres, pero no para los hombres, el acceso a los recursos socioeconómicos familiares parece tener un impacto directo en el hecho de que inicien su propio negocio o no, porque las mujeres necesitan más apoyo financiero de sus padres al iniciar un negocio que los hombres. Tanto para hombres como para mujeres, tener un padre autónomo se asoció positivamente con el deseo de trabajar por cuenta propia, confirmando el papel de la transmisión intergeneracional de valores y comportamientos emprendedores.
Ozyilmaz (2011)	The effects of demographic characteristics on entrepreneurial intention in the pre-venture stage of entrepreneurship	698 Estudiantes Universitarios	Relaciones significativas y positivas entre ser hombre, tener un padre emprendedor y tener intenciones emprendedoras para los estudiantes de economía, mientras que el modelo de rol del padre emprendedor fue el único predictor significativo y positivo de la intención emprendedora de los estudiantes de ingeniería.
Ahmed et al. (2011)	Do external factors influence students' entrepreneurial inclination?	330 Estudiantes Universitarios	Los resultados muestran que existe una relación significativamente positiva entre el apoyo familiar y las intenciones emprendedoras.
Kickul et al., (2008)	Are misalignments of perceptions and self-efficacy causing gender gaps in entrepreneurial intentions among our nation's teens?	5.000 Estudiantes de secundaria y preparatoria	Los resultados indican que la autoeficacia tiene un efecto más fuerte en los intereses emprendedores de las mujeres que en los hombres y que tener una madre o un padre emprendedores tiene un efecto significativo y positivo en los niveles de interés emprendedor de las mujeres (pero no de los hombres).
Carr & Sequeira (2007)	Prior family business exposure as intergenerational influence and entrepreneurial intent: A Theory of Planned Behavior approach	308 personas de una gran ciudad del suroeste de los EE. UU.	Los resultados sugieren efectos directos e indirectos significativos de la exposición previa a la empresa familiar sobre la intención emprendedora, a través de las variables de mediación de las actitudes hacia la empresa, el apoyo familiar percibido y la autoeficacia.

En este contexto cabe mencionar el trabajo de Pruett (2012) quien fue el único, entre los artículos que forman parte de esta revisión sistemática, no haber encontrado una relación estadísticamente significativa entre la exposición a modelos de rol y la solidez del apoyo familiar y las intenciones emprendedoras de 102 participantes en una serie de talleres de educación emprendedora.

El análisis también reveló que la relación entre los modelos de rol de los padres y la intención emprendedora se ve fuertemente afectada por otras variables, entre estas las más analizadas fueron la autoeficacia y la educación emprendedora. Como se muestra en la figura 8, de hecho, existe una estrecha y fuerte relación entre estos constructos (clúster azul), lo que significa que los autores que han estudiado el papel de la familia en la intención emprendedora, lo han colocado en relación a la autoeficacia y educación emprendedora.

Figura 8. Líneas de investigación del análisis de la literatura sobre el papel de la familia en el proceso emprendedor (Tres co-ocurrencia por palabras clave)



Fuente: VOSviewer version 1.6.10

Específicamente, la autoeficacia se consideró un factor importante para la intención emprendedora, especialmente cuando se asocia con una actitud positiva hacia el comportamiento. La relación entre la autoeficacia y los modelos de rol de los padres se ha establecido en varios estudios (Carr y Sequeira, 2007; Kickul et al., 2008; Odoardi et al.,

2018). Por ejemplo, Carr y Sequeira (2007) en su estudio encontraron efectos directos entre exposiciones familiares previas y la intención emprendedora, pero también efectos indirectos a través de la mediación de la autoeficacia. Odoardi et al., (2018), que analizaron la influencia positiva del apoyo familiar en la intención emprendedora, llegaron a la misma conclusión. En concreto, los autores demostraron que la autoeficacia media parcialmente el efecto de las creencias y motivaciones sobre la intención emprendedora y que esta mediación está moderada por el apoyo familiar.

Se realizaron estudios similares para mujeres universitarias. Por ejemplo, los resultados del estudio de Kickul et al., (2008) indicaron que tener una madre o un padre emprendedor tiene un efecto significativo y positivo en los niveles de interés emprendedores de las estudiantes femeninas (pero no de los estudiantes masculinos) y que esto podría explicar el efecto más fuerte de autoeficacia en el interés emprendedor de las estudiantes femeninas.

Al mismo tiempo, la investigación ha subrayado la importancia de la educación emprendedora como una posible herramienta que, a partir de habilidades y conocimientos, permite a los sujetos tener una mayor confianza en sus habilidades.

Existen estudios en la literatura que explican cómo el apoyo familiar percibido puede entrar en juego en este proceso. Por ejemplo, los resultados del estudio de Entrialgo e Iglesias (2017) mostraron el diferente papel de los factores externos en la generación del comportamiento emprendedor. En particular, la exposición a los modelos de rol parentales tiene una influencia significativamente positiva en las actitudes emprendedoras, mientras que la educación emprendedora tiene un efecto positivo en el control del comportamiento percibido. Además, esto es más alto en las mujeres que en los hombres.

En una investigación de Bignotti y le Roux (2016) se demostró que la educación emprendedora y el apoyo familiar influyen positivamente en la necesidad de éxito y las intenciones emprendedoras de los estudiantes.

En general, estos estudios han demostrado que un entorno familiar propicio para la interacción con la educación emprendedora se traduce en una mejor actitud hacia el emprendimiento. Como señalan Piperopoulos & Dimov (2015), los aportes, especialmente de carácter cognitivo, de la educación emprendedora interactúan con los aportes,

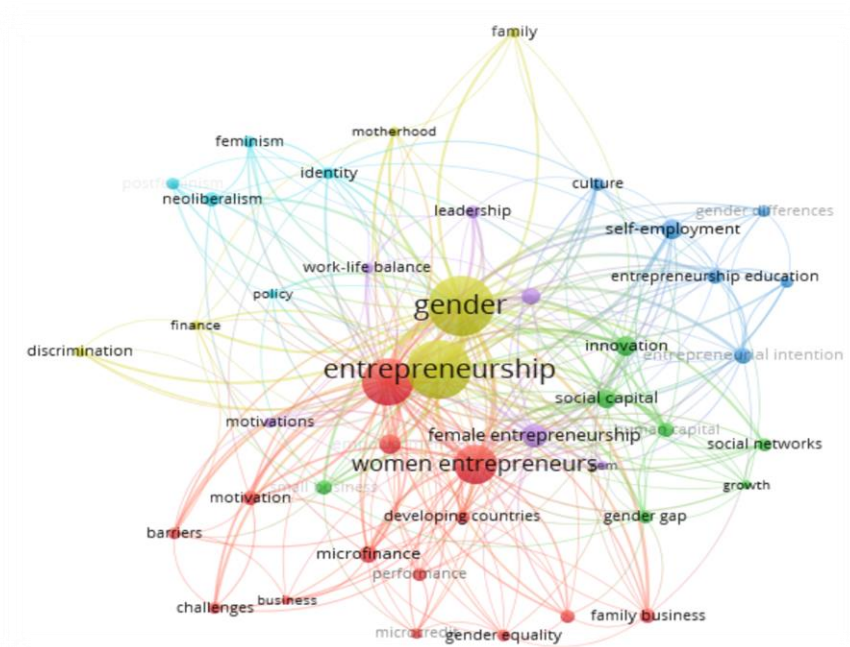
cognitivos y afectivos, que brinda la familia, para generar una gestalt actitudinal hacia el emprendimiento.

5.1.2 La intención emprendedora femenina y la brecha hombre-mujer

El segundo estudio tuvo como objetivo analizar la compleja relación entre género e intención emprendedora. Se trata de una variable muy controvertida en la literatura cuyas conclusiones no siempre han sido inequívocas. En el estudio que constituye la segunda publicación de esta Tesis Doctoral se planteó la hipótesis de que existe una diferencia en los niveles de intenciones emprendedoras entre hombres y mujeres (siendo los hombres los que tienen niveles más altos) (H2).

Con referencia específica a la publicación II, surgió que, de los 2.848 artículos analizados en la revisión sistemática, 429 artículos examinaron la intención emprendedora en las mujeres (Fig. 9, cluster azul).

Figura 9. Líneas de investigación del análisis de la literatura sobre la relación entre mujeres y emprendimiento (diez co-ocurrencia por palabras clave)



Fuente: VOSviewer version 1.6.10

Del análisis de la co-ocurrencia de palabras clave, surgió que la investigación sobre las intenciones emprendedoras de género se ha centrado en las diferencias individuales como la personalidad y las variables culturales que subyacen a la brecha de género. Además, el emprendimiento se ha estudiado como un campo puramente masculino (Cavalluzzo et al., 2002; Lewis, 2006; Wajcman, 2010; Hughes et al., 2012; Yang y Aldrich, 2014; Dheer et al., 2019), haciendo que las mujeres se sientan potencialmente más débiles porque no sienten que cumplen con los requisitos para el éxito (Bird y Brush 2002; Brush et al., 2009; Ahl y Nelson 2010; Patterson et al., 2012) o que, precisamente por su atípica naturaleza en el contexto emprendedor, suelen ser percibidas como emprendedoras menos competentes o menos "naturales" (Kacperczyk y Younkin, 2020).

Los estudios realizados en este campo se remontan a 3 niveles de análisis: contextual, relacionado a estereotipos y prejuicios de género (Ahl, 2006; de Bruin et al., 2007), variables personales (Marlow y Patton, 2005), y finalmente el análisis de factores externos que podrían mitigar la brecha de género (Reavley y Lituchy, 2008).

En cuanto al primer nivel de análisis, los académicos se han centrado en el entorno sociocultural, en el que predominan las creencias sobre el rol social de la mujer y la responsabilidad en las tareas domésticas, factores que implican restricciones en el desarrollo de las actividades emprendedoras femeninas y que crean diferencias entre hombres y mujeres (Fuentes-Fuentes et al., 2017; Eden y Gupta, 2017).

La cultura influye mucho en cómo los emprendedores desarrollan sus intenciones, refiriéndose a prejuicios, roles sociales y una visión estereotipada de género que contribuyen a una imagen del emprendimiento centrada en el hombre (Shinnar et al., 2012; Rubio-Bañón y Esteban-Lloret, 2016). Esto se refleja en la conclusión de Hoyt y Murphy (2016) de que los prejuicios que enfrentan las mujeres en las actividades emprendedoras son el resultado de estereotipos de género.

Además, de la revisión de la literatura surgió que los estereotipos y prejuicios de género también afectan a los inversionistas, quienes tienen menos probabilidades de otorgar préstamos a mujeres "empreendedoras potenciales" (Guzman & Kacperczyk, 2019), con consecuencias en el vínculo intención-comportamiento (Greene et al., 2001; Coleman, 2002; Verheul et al., 2006; Sperber y Linder, 2018). Más evidencia ha sugerido que tales disparidades pueden persistir incluso en condiciones experimentales, considerando cualquier diferencia observable entre empresas lideradas por mujeres y hombres (por

ejemplo, Bigelow et al. 2014; Thébaud, 2015; Tinkler et al., 2015). Dado que las mujeres tienen menos probabilidades de recibir financiación externa, algunas investigaciones han demostrado que las empresas propiedad de mujeres son más pequeñas y tienen menos capital que las empresas propiedad de hombres (por ejemplo, Rosa et al., 1996; Coleman y Robb, 2009; Tipu, 2017), con muy pocas garantías, ya que tienen más dificultades para obtener un préstamo (Coleman, 2000; Orser et al., 2006).

Además, se pueden detectar disparidades de género similares en cuanto al capital social de mujeres y hombres, con fuertes diferencias en la estructura y composición de sus redes (Cromie y Birley, 1992; Renzulli y Aldrich, 2005; Guzman y Kacperczyk, 2019). Los vínculos sociales son el recurso más importante para los emprendedores, ya que canalizan capital y beneficios, pero las mujeres a menudo quedan excluidas de las redes más importantes (Lim y Suh, 2019).

Tales desigualdades en la estructura de la red pueden trasladarse al emprendimiento, limitando el acceso de las mujeres a las oportunidades y recursos necesarios para fundar una empresa de alto crecimiento (Renzulli y Aldrich, 2005; Tinkler et al., 2015).

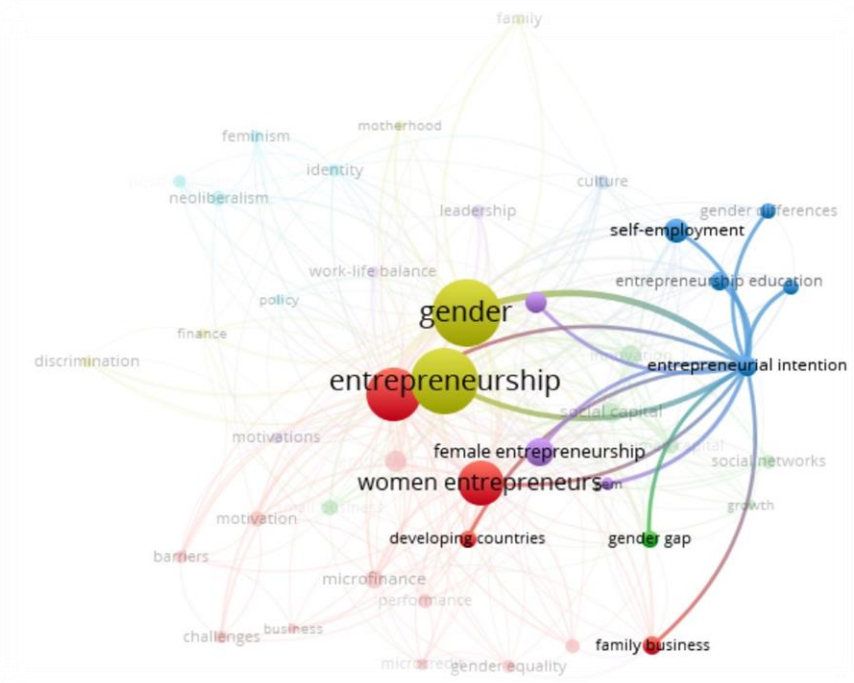
Estos factores, ligados a problemas socioculturales, también explican las diferencias en las actitudes hacia el emprendimiento y algunos rasgos psicológicos que influyen en la intención emprendedora. De hecho, el campo del emprendimiento anclado en rasgos estereotípicamente masculinos (por ejemplo, mayor confianza, independencia, propensión al riesgo y autonomía en los hombres que en las mujeres; Langowitz y Minniti, 2007; Robb y Watson, 2012) y la percepción de que los hombres emprendedores son más capaces, afecta negativamente las autoevaluaciones y expectativas de las emprendedoras (Chowdhury et al., 2019) (segundo nivel de análisis).

De los artículos seleccionados en esta revisión de la literatura, surge que las mujeres tienen creencias y percepciones diferentes que conducen a niveles más bajos de intenciones emprendedoras que los hombres (Bird y Brush, 2002; Eagly y Karau, 2002; Ahl, 2006). Por ejemplo, las mujeres rechazan más la elección de una carrera emprendedora porque perciben que tienen menos habilidades y conocimientos emprendedores que los hombres, lo que se traduce en niveles más bajos de autoeficacia (Wilson et al. al., 2007; Kirkwood, 2009; Austin y Nauta, 2016; Kelley et al., 2017).

En definitiva, lo que muestran estos estudios es la centralidad del campo del emprendimiento como masculino y cómo el contexto por un lado (cultura, roles sociales) y las variables socio-psicológicas por el otro (capital humano, baja confianza en los propios conocimientos y habilidades, rasgos “típicamente masculinos”) podrían influir en los tipos de carrera que se consideran aceptables para las mujeres, aumentando aún más las diferencias de género (Griffiths et al., 2013; Kalafatoglu y Mendoza, 2017).

Sin embargo, mientras que la personalidad, la cultura, los estereotipos y las disparidades basadas en actitudes son más difíciles de cambiar, algunos factores eternos pueden reducir la disparidad de género. De hecho, como muestra el análisis de cluster, la intención emprendedora de las mujeres está estrechamente vinculada a la educación emprendedora, considerada una herramienta potencial para cerrar la brecha de género (Fig. 10). Esto ocurre tanto en la fase de consolidación de la empresa como en la fase de puesta en marcha de un negocio (Mazzarol et al., 1999; Rotefoss y Kolvereid, 2005).

Figura 10. Relaciones de la intención emprendedora de las mujeres (clúster azul)



Fuente: VOSviewer version 1.6.10

Mand et al. (2018) mostró que la educación afecta los niveles de emprendimiento de las mujeres indias, incluso en un sector estereotípicamente masculino como la electrónica.

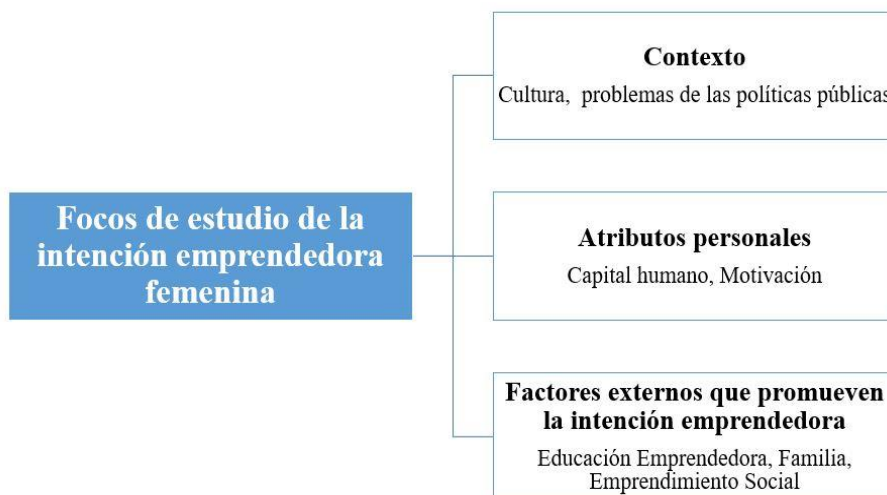
Otra evidencia empírica ha resaltado la importancia de la educación emprendedora en los niveles de autoeficacia. Por ejemplo, los estudios han demostrado que la educación emprendedora tiene un mayor impacto en el desarrollo de la autoeficacia (Wilson et al., 2007; Centindamar et al., 2012) y esto a su vez influye en la intención emprendedora.

Entre estos factores externos, la literatura también ha enfatizado el apoyo familiar. El análisis mostró el papel crucial y positivo de los miembros de la familia, especialmente cuando los sistemas de apoyo externo son limitados (Chang et al., 2009, 2012) como fuente de apoyo económico en las primeras etapas de la puesta en marcha de un negocio (Shen et al., 2017), sino también sobre el tema de la maternidad (Jennings y McDougald, 2007), brindando apoyo moral y psicológico a las mujeres que tienen que conciliar las responsabilidades familiares con el deseo de crecimiento profesional.

En este contexto, cabe mencionar la importancia del emprendimiento social (cluster 5) como paradigma que permite reducir la brecha hombre-mujer en la elección de una carrera emprendedora. Este es un tema que ha despertado mucha curiosidad tanto por su carácter innovador como por sus repercusiones prácticas, por ello se decidió profundizar en la intención emprendedora social que se discutirá en la tercera publicación.

La figura 11 presenta un modelo conceptual que resume las principales corrientes de estudio de la intención emprendedora en las mujeres, para facilitar al lector la comprensión del tema.

Figura 11. Focos de estudios de la intención emprendedora femenina



suma importancia porque constituye la base teórica para el desarrollo del emprendimiento social como campo de investigación independiente.

En la segunda fase (2016-2018; palabras clave en verde), el concepto de hibridación cambió el foco de atención de la comunidad científica. Este cambio ha propiciado la proliferación de organizaciones híbridas y el nacimiento del emprendimiento sostenible, considerado como un subtema en el estudio del emprendimiento social.

Finalmente, en la tercera fase (2018-2020; palabras clave en amarillo), la investigación pasó al análisis de los factores que apoyan el desarrollo de la intención emprendedora social. De los documentos que forman parte de nuestra base de datos, surgió que los académicos se enfocaron en factores psicológicos específicos: como la empatía, la autoeficacia, la proactividad, la motivación prosocial, la resiliencia, la obligación moral y la inteligencia emocional (Tabla 9).

Tabla 9. Variables más analizadas en el estudio de la intención emprendedora social relacionadas al análisis sistemático de la literatura

Variables	Evidencia Empírica
Self-efficacy	To et al., 2020; Bangsawan et al., 2020; Igwe et al., 2020; Ha et al., 2020; Hassan, 2020; Sam Liu & Wang, 2020; Urban, 2020; Rozar et al., 2020; Aydogmus, 2019; Jasniak et al., 2018; Tiwari et al., 2017.
Prior experience with social problems (and Self-efficacy)	Ip et al., 2018; Lacap et al., 2018 (Ashraf, 2020; Hockerts, 2018).
Emotional intelligence (and Self-efficacy)	Erro-Garcés, 2020; Wahid et al., 2019; Wongphuka et al., 2017 (Chien-Chi et al., 2020; Darmanto & Pujiarti, 2020; Tiwari et al., 2017).
Prosocial motivation	Jeong et al., 2020; Kim et al., 2020; Yamini et al., 2020; Yu et al., 2020; Tiwari et al., 2020; Borquist & de Bruin, 2019.
Empathy (and Perceived social support)	Wu et al., 2020; Lambrechts et al., 2020; Le et al., 2020; Mohammadi et al., 2020; Tiwari et al., 2020; Younis et al., 2020; Peng & Liang, 2019; Riedo et al., 2019; Tucker et al., 2019; Zulfiqar et al., 2019; Bacq & Alt, 2018; Petrovskaya & Mirakyan, 2018; (Igwe et al., 2020; Younis, 2020).
Moral obligation	Tan et al., 2020; Zakaria et al., 2019.
Resilience	Chowdhury, 2019; Gray et al., 2019; Morrison et al., 2017.
Empathy, Self-efficacy (and Perceived social support)	Yu & Wang, 2019; (Rambe & Ndofirepi, 2019; Ashraf, 2019).
Empathy, Moral obligation, Perceived social support (and Self-efficacy)	Garaika, 2020a, 2020b; Ashraf, 2019; Lacap et al., 2018; Aure, 2018; (Sousa-Filho et al., 2020; Akter et al., 2020; Ghatak et al., 2020; Asma et al., 2019).
Self-efficacy, Perceived social support (and educational support)	Aure et al., 2019; Hockerts, 2018; (Akter et al., 2020; Barton et al., 2018).

Se trata de factores más ligados a la "proximidad" y que parecen menos centrados en una visión "masculina" del proceso emprendedor. Por ejemplo, el estudio de Chandra y Aliandrina (2018) afirmó que los emprendedores sociales no solo han demostrado su empatía hacia las desigualdades sociales, sino que también han tomado acciones para abordarlas desempeñando un papel significativo en los procesos de toma de decisiones relacionados con la búsqueda de soluciones a los problemas sociales. El estudio de Tiwari et al., (2017), dirigido a analizar las intenciones emprendedoras sociales en un grupo de estudiantes universitarios a través de la inteligencia emocional, la autoeficacia y la actitud para convertirse en emprendedor social, demostró que el modelo explicaba el 42% de la varianza sobre la intención emprendedora social. Además, tanto la inteligencia emocional como la autoeficacia influyeron positivamente en la actitud e intención emprendedora social. Petrovskaya y Mirakyan (2018), al analizar las diferencias entre la intención emprendedora social y comercial, concluyeron que los emprendedores sociales potenciales diferían de los emprendedores comerciales potenciales en cuatro dimensiones: altruismo, integridad, confianza en los demás y empatía.

Además, los académicos han analizado los factores externos que apoyan el desarrollo de la intención emprendedora social, en particular la educación (Shahverdi et al., 2018; Hockerts, 2018), la cultura (Yang et al., 2015; Aidul Bahrein et al., 2020), el apoyo de redes sociales (Jemari et al., 2017) y el género (Bastida et al., 2020; Chipeta et al., 2020).

Entre ellos, el género merece una atención especial. En general, como se ha demostrado, existe un desequilibrio entre hombres y mujeres en la elección de una carrera emprendedora, con predominio de los hombres (Publicación II). Los estudios realizados sobre la intención emprendedora social han demostrado que esta brecha se reduce significativamente, lo que justifica aún más la importancia de esta forma de iniciativa emprendedora para reducir los prejuicios y la desigualdad (Van Ryzin et al., 2009; Alexandre-Leclair, 2017; Cardella et al., 2020).

Por ejemplo, Notais y Tixier (2017), a través del análisis de seis historias de vida de mujeres de zonas económicamente desfavorecidas, han estudiado los factores que empujan a las mujeres a elegir una carrera emprendedora social. Entre estos factores, el atractivo para un rol social fue el más importante. Lorti et al. (2017), basado en la teoría de la autodeterminación y la teoría de la identidad social, reveló la propensión natural de las mujeres hacia los objetivos sociales y la creación de valor social; Yamini et al. (2020)

analizaron el efecto de las motivaciones prosociales e intrínsecas sobre la inclinación de un individuo a convertirse en emprendedor social, y encontraron que las motivaciones prosociales e intrínsecas afectan positivamente la intención emprendedora social de los individuos. Además, las mujeres han demostrado estar más influenciadas por la combinación de diferentes factores motivacionales en comparación con los hombres.

El estudio de Bastida et al. (2020), a través del análisis de 264 cooperativas españolas, ha demostrado que existe una relación positiva entre las cooperativas sociales y la actividad emprendedora de las mujeres capaz de paliar la diferencia de género. Las propietarias de las cooperativas, de hecho, percibieron este modelo de negocio como alineado con sus valores y más adecuado a su estilo de vida.

Las mujeres parecen motivadas hacia objetivos sociales, a diferencia de los hombres cuyas actitudes empujan hacia temas más económicos y materiales (Dorado y Ventresca, 2013). Como muestra la literatura (Themudo, 2009; Hechevarría et al., 2012; Nicolás y Rubio, 2016), los antecedentes que promueven la intención emprendedora social parecen adecuados al rol social de la mujer. Por ejemplo, Van Ryzin et al. (2009) sugieren que las mujeres tienen más probabilidades de ser emprendedoras sociales que los hombres, ya que este tipo de negocios parece compartir sus metas y valores, más orientados al cuidado y apoyo comunitario.

Otros estudios han analizado la intención de las mujeres hacia las actividades de emprendimiento social en estrecha relación con un mayor deseo motivacional de lograr un mejor equilibrio entre la vida laboral y familiar (Zou, 2015), dejando de lado el deseo de riqueza económica (Thébaud, 2015). Por ejemplo, Muntean y Ozkazanc-Pan (2016), han sugerido que las empresas sociales pueden ayudar a impulsar políticas de conciliación, como horarios flexibles o licencia parental, que actúan como un factor motivador, favoreciendo el avance profesional de las mujeres.

5.1.4 Validación de la escala BPNSF en el contexto español

El cuarto artículo tuvo como objetivo analizar las propiedades psicométricas de la escala BPNSFS desarrollada por Chen et al., (2015), en una amplia muestra de estudiantes universitarios (n= 1.075) con el fin de validar su uso en el contexto español, además, se analizó la invarianza del modelo de medida respecto al género y tipo de estudios de los estudiantes universitarios españoles (H5).

Este es un paso importante y estrechamente relacionado con los objetivos de la quinta publicación, es decir, analizar el impacto de variables contextuales y psicológicas, incluida la satisfacción de las necesidades psicológicas básicas, sobre la intención emprendedora.

Los resultados obtenidos son consistentes con los proporcionados en estudios previos utilizando diferentes lenguajes y culturas (Chen et al., 2015; Cordeiro et al., 2016; Longo et al., 2016; Del Valle et al., 2018; Liga et al., 2018), que también reflejan una solución de seis factores, es decir, la satisfacción y frustración de las tres necesidades se representan mejor como constructos separados. Este resultado también encuentra consenso desde un punto de vista teórico, en el que la frustración se considera como un constructo diferente y separado (Vansteenkiste y Ryan, 2013) y no simplemente como una falta de satisfacción. Apoyar esta distinción es importante porque nos permite investigar las dos dimensiones de forma independiente (Bartolomew et al., 2011; Longo et al., 2016).

En este sentido, se reconoce la importancia de la motivación y su multidimensionalidad con diferentes niveles colocados en un continuo, desde el nivel más alto de autodeterminación, con alta motivación, hasta el nivel más bajo (Wang et al., 2019).

Además, el análisis realizado mostró que la versión española de la BPNSFS tiene una adecuada consistencia interna, un alfa de Cronbach y un omega de McDonald's de 0,843 y 0,846 para la dimensión de satisfacción y un alfa 0,813 y omega 0,815 para la dimensión de frustración de necesidades psicológicas básicas. Para los seis factores, los valores alfa y omega variaron de 0,72 a 0,84.

Como era de esperar, los resultados del estudio mostraron la existencia de una correlación negativa y significativa entre los factores que miden la satisfacción y frustración de las necesidades psicológicas, y una correlación positiva y significativa entre los tres componentes de la necesidad de satisfacción, por un lado, y los tres componentes de la frustración por otro, confirmando, una vez más, la estructura propuesta por Chen et al. (2015).

Una vez que se encontró el modelo factorial de mejor ajuste de la escala (6 factores y 24 ítems), se utilizó un enfoque multigrupo para probar la invarianza de la medición entre el género y el tipo de estudio.

El modelo 1 verificó si la estructura propuesta sería la misma entre grupos. Dado que el ajuste excelente de la estructura de seis factores se estableció previamente de forma

independiente para cada grupo, se podría esperar que se apoye la invarianza de configuración. Los índices de adaptación lo confirmaron. Además, los índices de bondad general de ajuste y las pruebas para las diferencias de ajuste entre modelos consecutivos (Modelo 3 versus Modelo 2 y Modelo 4 versus Modelo 3) también apoyaron todos los niveles de invarianza de medición.

Las necesidades psicológicas básicas son factores de suma importancia ya que, actuando como factores motivadores, juegan un papel fundamental en la salud psicológica de los estudiantes, en su desempeño académico, en la decisión de continuar sus estudios universitarios y en sus elecciones profesionales. Además, muchos investigadores han aportado pruebas suficientes de la influencia que ejercen diversas variables psicológicas, sociales, contextuales y culturales sobre las necesidades psicológicas básicas (Standage et al., 2005; Ntoumanis y Standage, 2009). Por tanto, es importante contar con una escala con adecuadas propiedades psicométricas que mida estas necesidades y conocer la conexión con otras variables para mejorar el bienestar de los estudiantes y su deseo de crecimiento profesional. La validación de la escala en el contexto español, que se llevó a cabo en este estudio, amplía aún más sus posibilidades de uso.

5.1.5 Percepción de Covid-19 e intención emprendedora: la importancia de las variables psicológicas en un contexto incierto

Comprender qué factores contribuyen a impulsar la intención y la elección de una carrera emprendedora en un período de crisis parece ser de fundamental importancia ya que se traduce en el deseo de crecimiento y resiliencia que las personas pueden enfrentar ante una situación percibida como adversa e incierta.

En concreto, en este estudio (Publicación V) se hipotetizó la influencia negativa de la percepción de Covid-19 sobre las intenciones emprendedoras (H6a) y la influencia positiva de algunas variables psicológicas (satisfacción de necesidades psicológicas básicas, proactividad y optimismo) sobre las intenciones emprendedoras (H6b; H7; H8). Además, se ha planteado la hipótesis de que tanto la proactividad como el optimismo mediarían la influencia de la percepción de Covid-19 y la satisfacción de las necesidades psicológicas básicas en las intenciones emprendedoras (H9 y H10).

Los resultados confirmaron todas las hipótesis planteadas en esta publicación, en particular, es necesario demostrar la influencia del optimismo y la proactividad en el

proceso emprendedor. De hecho, y este es un aporte importante de este estudio, además de su efecto positivo y directo sobre las intenciones, la proactividad y el optimismo interactúan con la percepción de Covid-19 y con la satisfacción de necesidades psicológicas básicas. Esto significa que mitigan significativamente la relación negativa entre la percepción del Covid-19 y las intenciones emprendedoras y refuerzan las relaciones positivas entre la satisfacción de las necesidades psicológicas básicas con las intenciones emprendedoras, indicando que ambos rasgos son importantes para entender el emprendimiento en situaciones peligrosas, como un escenario pandémico.

El modelo de mediación sugerido también amplía la literatura previa, que se centra principalmente en la relación directa entre la personalidad y las intenciones (Madar et al., 2019; Vodă y Nelu, 2019). En particular, el presente estudio se suma a los escasos estudios de la literatura sobre los posibles procesos de mediación que influyen en la relación entre personalidad y comportamiento emprendedor (Delle y Amadu, 2015; Travis y Freeman, 2017) en situaciones percibidas como negativas y de alta incertidumbre.

Por tanto, incidir en la intención emprendedora de los estudiantes (potenciales emprendedores), que se ven obstaculizados por la situación pandémica, significa analizar los factores psicológicos y sociales que influyen en las intenciones y comprender cómo se relacionan con el comportamiento emprendedor en la práctica. Un entorno que se percibe como altamente peligroso e incierto se correlaciona negativamente con las intenciones de iniciar un negocio. Sin embargo, la percepción individual de una situación negativa difiere entre individuos, con diferentes consecuencias para sus intenciones (Krueger et al., 2000).

Ciertamente, más allá de las especificidades individuales, lo que hay que tener en cuenta es el papel de las variables del estudio sobre las intenciones emprendedoras. Investigaciones anteriores han descrito la proactividad como un recurso que las personas pueden movilizar en un momento de estrés o adversidad, lo que les permite superar las barreras de diversas áreas de la vida (Kahana et al., 2012; Searle y Lee, 2014).

A través de este análisis también se demostró que el optimismo se correlaciona significativa y positivamente con las intenciones emprendedoras. Esta importancia del optimismo para el desarrollo de las intenciones emprendedoras complementa estudios previos en los que se ha considerado a los emprendedores como individuos que se mantienen optimistas y persisten, incluso en situaciones adversas (Hundera et al., 2019; Lindblom et al., 2020).

Sin embargo, cabe señalar a este respecto que los estudios presentes en la literatura no siempre han arrojado resultados consistentes (Hmieleski y Baron, 2009; Cassar, 2010). Mientras que algunos estudios han encontrado una relación positiva entre optimismo e intención emprendedora (Hmieleski y Baron, 2009), otros han encontrado una relación negativa (Elhem et al., 2015). Estos últimos estudios han concluido que el optimismo excesivo puede ser un factor que está detrás de las malas decisiones con altos niveles de toma de riesgos. Sin embargo, las conclusiones de James y Gudmundsson (2011), en línea con el presente estudio, sugieren que efectos moderados de optimismo tienen un impacto positivo en la intención emprendedora y, en consecuencia, aumentan las posibilidades de éxito de una nueva empresa.

Además, los hallazgos están en línea con las teorías psicológicas que sugieren que tener una orientación optimista (psicología positiva) y la capacidad de encontrar soluciones alternativas son recursos psicológicos valiosos que pueden ayudar a lidiar con el estrés y facilitar estrategias de afrontamiento (Joseph y Linley, 2008), especialmente en épocas de crisis o en situaciones inciertas.

Este estudio presenta un enfoque innovador porque examina los aspectos psicológicos de la intención emprendedora en una situación de pandemia. Además, el presente trabajo confirma estudios previos que también muestran el papel positivo de la satisfacción de las necesidades psicológicas básicas, que actúa como un acelerador de la iniciativa emprendedora. De esta manera, se une a la creciente literatura que explora cómo las necesidades psicológicas básicas actúan como impulsos motivacionales que influyen positivamente en el futuro de los individuos, incluida la elección de carrera (Miller, 2015), apoyando el consenso de que, para tener éxito, un emprendedor debe expresar y utilizar diferentes habilidades, incluidos los destinados a satisfacer sus necesidades y lograr su bienestar en general (Francoise et al., 2017; Shir et al., 2019).

5.2 Conclusiones

En relación a la evaluación de la literatura sobre el papel de la familia en las intenciones emprendedoras (objetivo específico 1) y la hipótesis relativa a la influencia positiva del apoyo familiar en las intenciones emprendedoras de sus miembros (Hipótesis 1):

- Del análisis de los artículos publicados surgió el papel crucial de la familia, tanto en términos de apoyo (moral, psicológico, financiero), como en términos de modelos de rol emprendedores positivos, útiles para transferir experiencias, conocimientos y competencias a los hijos en la elección de una carrera emprendedora (comparación entre familias emprendedoras y familias no emprendedoras).
- De la revisión de la literatura se desprende que la familia influye en las intenciones emprendedoras de manera directa, pero también indirecta, a través de la autoeficacia y que entra en juego en el proceso educativo para mejorar las intenciones emprendedoras.
- Cabe destacar que, del 22,6% de los artículos analizados relacionados específicamente con la intención emprendedora y la familia, solo un estudio no encontró una influencia estadísticamente significativa del apoyo familiar en las intenciones emprendedoras de sus miembros (Pruett, 2012).

Con respecto a la brecha entre hombres y mujeres en las intenciones emprendedoras (objetivo específico 2), se ha hipotetizado que las mujeres muestran niveles más bajos de intenciones emprendedoras que los hombres (Hipótesis 2), en este sentido:

- La literatura ha destacado la brecha hombre-mujer en las intenciones emprendedoras, atribuible a 2 tipos de factores: contextuales (relacionados con el entorno sociocultural, estereotipos de género, escaso acceso a la financiación), variables individuales (relacionadas con una autoevaluación de las mujeres carecen de habilidades y conocimientos empresariales, en comparación con los hombres).
- De la revisión de la literatura, surgió una visión del emprendimiento centrada en los hombres. Por ejemplo, muchas de las variables que se estudian en relación a la

intención emprendedora son consideradas estereotipadas "masculinas", destacando las diferencias de género: mayores niveles de propensión al riesgo, independencia, autonomía en los hombres que en las mujeres.

- Surge la necesidad de utilizar diferentes paradigmas en el estudio del emprendimiento femenino, como campo de investigación que es el resultado de diferentes factores contextuales y psicológicos.
- El análisis reveló el papel de algunos factores externos que podrían ayudar a las mujeres en la elección de una carrera emprendedora: la educación (aumenta los conocimientos y habilidades de las alumnas, e interactúa con la autoeficacia, aumentando, consecuentemente, los niveles de intención emprendedora), la familia como fuente de apoyo económico (especialmente cuando los apoyos externos parecen limitados), pero también como apoyo moral y psicológico en la conciliación entre la vida privada y el crecimiento profesional; la importancia de la dimensión social del emprendimiento como factor que, más conciliado con los valores y motivaciones de las mujeres, así como con su rol social, se consideró un paradigma alternativo que podría ayudar a las mujeres a elegir una carrera emprendedora.

En relación al análisis de la intención emprendedora social (objetivos específicos 3 y 4), se ha hipotetizado que, en la literatura, los antecedentes de las intenciones emprendedoras sociales se han analizado en relación a diferentes variables, con respecto al emprendimiento comercial (H3), y que la brecha hombre-mujer que caracteriza la literatura sobre el emprendimiento comercial se reduce significativamente en referencia a la intención emprendedora social (H4):

- Del análisis de la literatura se desprende que la intención emprendedora social se ha analizado en relación con variables más "comunitarias", en comparación con la intención emprendedora comercial. En concreto, las variables que más se han analizado se refieren a la empatía (considerada el factor clave), la autoeficacia social, la obligación moral, la inteligencia emocional, el apoyo social percibido, las motivaciones prosociales, las experiencias previas con problemas sociales y la resiliencia.

- Los resultados mostraron que las mujeres están más inclinadas a elegir una carrera emprendedora social. Las razones son diferentes: la investigación sugiere que las características intrínsecas y específicas del emprendimiento social (por ejemplo, la centralidad de los objetivos sociales y la creación de valor social, la presencia de valores más inspirados en el cuidado del otro) se adaptan mejor las necesidades de las mujeres, su forma de trabajar (relaciones de alta calidad) y el respeto a sus prioridades (igualdad de oportunidades, mayor conciliación).

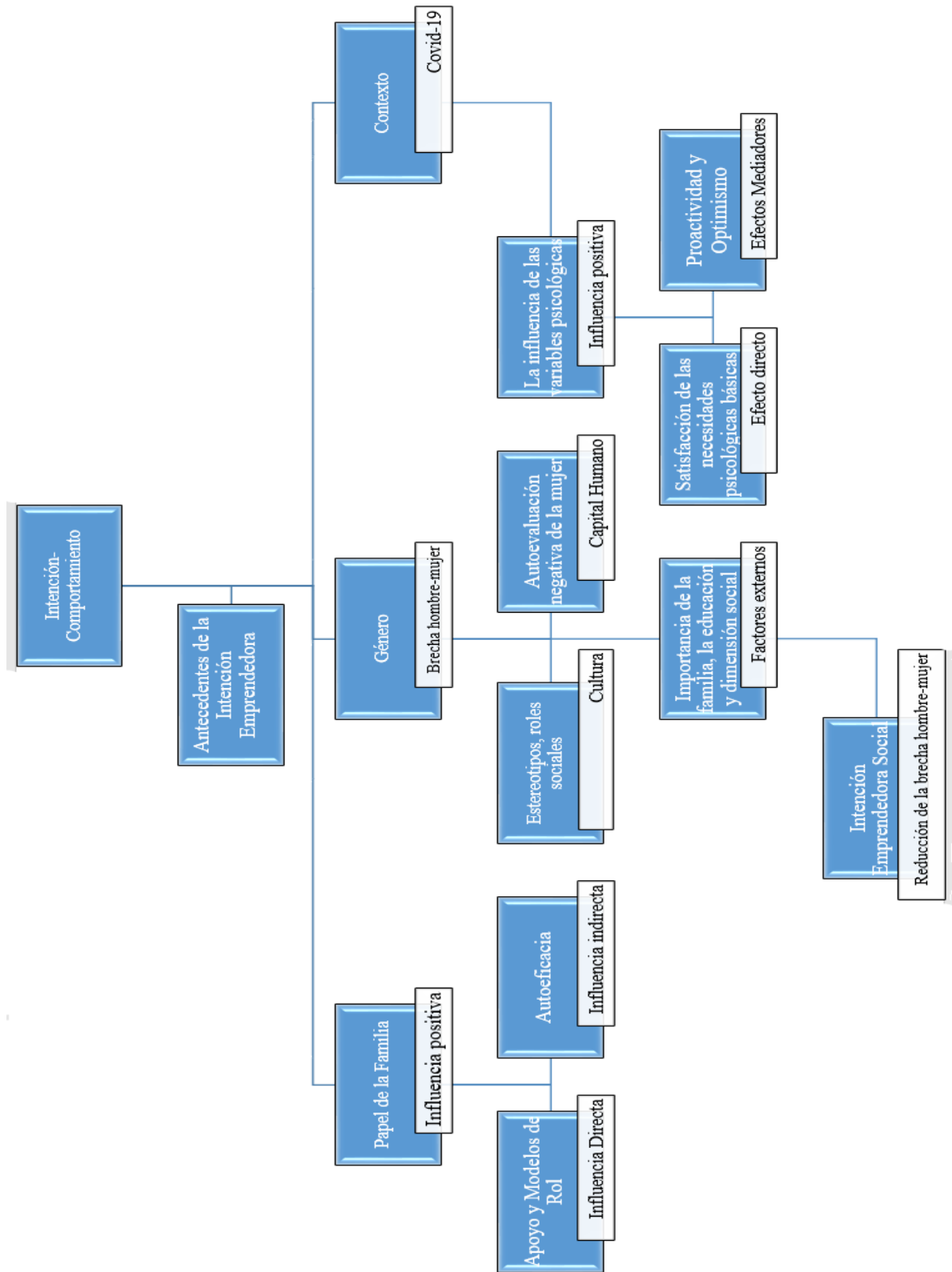
En cuanto a la adaptación y validación de la escala de necesidades psicológicas básicas (BPNSF) en el contexto español (objetivo específico 5), mediante el análisis de las propiedades psicométricas y el análisis de invariancia respecto al género y tipo de estudios (H5):

- Los resultados mostraron evidencia sobre la adecuada adaptación psicométrica de la escala en el contexto español y una alta consistencia interna. Además, los análisis confirmaron la estructura multifactorial de la escala original (6 factores y 24 ítems), considerando las dimensiones de satisfacción y frustración como dos constructos separados, en línea con los supuestos teóricos del modelo de Autodeterminación.
- El análisis del modelo de invariancia confirmó la adecuación psicométrica de la escala en relación al género y tipo de estudios.

En relación al análisis de la influencia de las variables psicológicas y de un contexto percibido como incierto y riesgoso sobre la intención emprendedora (objetivo específico 6; hipótesis 6-10) se ha hipotetizado que: la percepción de la pandemia Covid-19 se asocia negativamente a las intenciones emprendedoras (H6a) y la satisfacción de necesidades psicológicas básicas se asocia positivamente con las intenciones emprendedoras (H6b) de los estudiantes universitarios; la proactividad influye positivamente con las intenciones emprendedoras de los estudiantes (H7); el optimismo influye positivamente con las intenciones emprendedoras de los estudiantes (H8), la relación entre la percepción de la pandemia Covid-19 y las intenciones emprendedoras está mediada por la proactividad (H9a) y el optimismo (H9b), la relación entre las necesidades psicológicas y las intenciones emprendedoras está mediada por proactividad (H10a) y optimismo (H10b). Los resultados mostraron que:

- La percepción de Covid-19 influyó negativamente en las intenciones emprendedoras, mientras que la satisfacción de las necesidades psicológicas básicas influyó positivamente en las intenciones emprendedoras de los estudiantes universitarios latinoamericanos.
- La proactividad y el optimismo han influido positivamente en las intenciones emprendedoras.
- La proactividad y el optimismo han mediado la relación entre la percepción de Covid-19 y las intenciones emprendedoras, reduciendo de manera estadísticamente significativa el impacto negativo de la percepción de la pandemia sobre la posibilidad de elegir una carrera emprendedora.
- La proactividad y el optimismo mediaron la relación entre la satisfacción de las necesidades psicológicas básicas y las intenciones emprendedoras, aumentando los efectos positivos de la satisfacción de las necesidades psicológicas como factor motivador para la elección de una carrera emprendedora.
- Cuando el entorno es incierto, es probable que las personas se refieran más a sus habilidades y competencias y desarrollen intenciones emprendedoras cuando creen que tienen la capacidad de encontrar soluciones alternativas para superar los obstáculos (ser proactivo), explotando los aspectos positivos de la situación (ser optimista). Por supuesto, la confianza de las personas en su futuro y la implementación de comportamientos proactivos no garantiza que tendrán éxito como emprendedores, sin embargo, aumenta la probabilidad de que consideren caminos alternativos (por ejemplo, la elección de una carrera emprendedora), para cambiar el statu quo de una situación percibida como adversa.

Figura 13. Mapa Mental



5.3 Conclusions

In relation to the evaluation of the literature on the role of the family in entrepreneurial intentions (specific objective 1) and the hypothesis regarding the positive influence of family support on the entrepreneurial intentions of its members (H1):

- The analysis revealed the crucial role of the family, both in terms of support (moral, psychological, financial), and in terms of positive entrepreneurial role models, useful for transferring experiences, knowledge and skills to children in choosing a career entrepreneurial (comparison between entrepreneurial families and non-entrepreneurial families).
- From the literature review it emerged that the family influences entrepreneurial intentions directly, but also indirectly, through self-efficacy and that comes into play in the educational process to improve entrepreneurial intentions.
- It should be noted that, of 22.6% of the articles analyzed, related specifically to the relationship between entrepreneurial intention and family, only one study did not find a statistically significant influence of family support on the entrepreneurial intentions of the members.

With respect to the gap between men and women in entrepreneurial intentions (specific objective 2), it was hypothesized that women showed lower levels of entrepreneurial intentions than men (H2), in this sense:

- The literature has highlighted the man-woman gap in entrepreneurial intentions, attributable to 2 types of factors: contextual (related to the socio-cultural environment, gender stereotypes, scarce access to funding), individual variables (related to a self-assessment of women as lacking in entrepreneurial skills and knowledge, compared to men).
- A male-centered vision of entrepreneurship emerged from the literature review. For example, many of the variables that are studied in relation to entrepreneurial intention are considered to be stereotypically "masculine", highlighting gender differences: higher levels of risk propensity, independence, autonomy in men than women.
- The need arises to use different paradigms in the study of female entrepreneurship,

as a research field that is the result of different contextual and psychological factors.

- The analysis revealed the role of some external factors that could help women in the choice of an entrepreneurial career: education (increases the knowledge and skills of female students, and interacts with self-efficacy, consequently increasing levels of entrepreneurial intention), the family, as a source of economic support (especially when external supports appear limited), but also as moral and psychological support in the reconciliation between private life and professional growth; the importance of the social dimension of entrepreneurship as a factor that, being more reconciled with the values and motivations of women, as well as with their social role, was considered an alternative paradigm that could help women in choosing an entrepreneurial career.

In relation to the analysis of social entrepreneurial intention (specific objectives 3 and 4), it has been hypothesized that, in the literature, the antecedents of social entrepreneurial intentions have been analyzed in relation to different variables, with respect to commercial entrepreneurship (H3), and that the man-woman gap, that characterizes the commercial entrepreneurship literature, is significantly reduced in reference to social entrepreneurial intention (H4):

- The analysis showed that the social entrepreneurial intention was analyzed in relation to more "community" variables compared to the commercial entrepreneurial intention. Specifically, the variables that have been most analyzed refer to empathy (considered the key factor), social self-efficacy, moral obligation, emotional intelligence, perceived social support, prosocial motivations, previous experiences with social problems and resilience.
- Results showed that women are more inclined to choose a social entrepreneurial career. The reasons are different: the research suggests that the intrinsic and specific characteristics of social entrepreneurship (e.g., the centrality of social objectives and the creation of social value, the presence of values more inspired by the care of the other) are better suited the needs of women, their way of working (high quality relationships) and respect for their priorities (equal opportunities, greater work-life balance).

Regarding the adaptation and validation of the Basic Psychological Needs Satisfaction and Frustration Scale (BPNSF) in the Spanish context (specific objective 5), through the analysis of psychometric properties and the analysis of invariance with respect to gender and type of studies (H5):

- The results showed evidence on the adequate psychometric adaptation of the scale in the Spanish context and a high internal consistency. Furthermore, the analyzes confirmed the multifactorial structure of the original scale (6 factors and 24 items), considering the dimensions of satisfaction and frustration as two separate constructs, in line with the theoretical assumptions of the Self Determination Theory.
- The analysis of the invariance measurement model confirmed the psychometric adequacy of the scale, also in relation to the genre and type of studies.

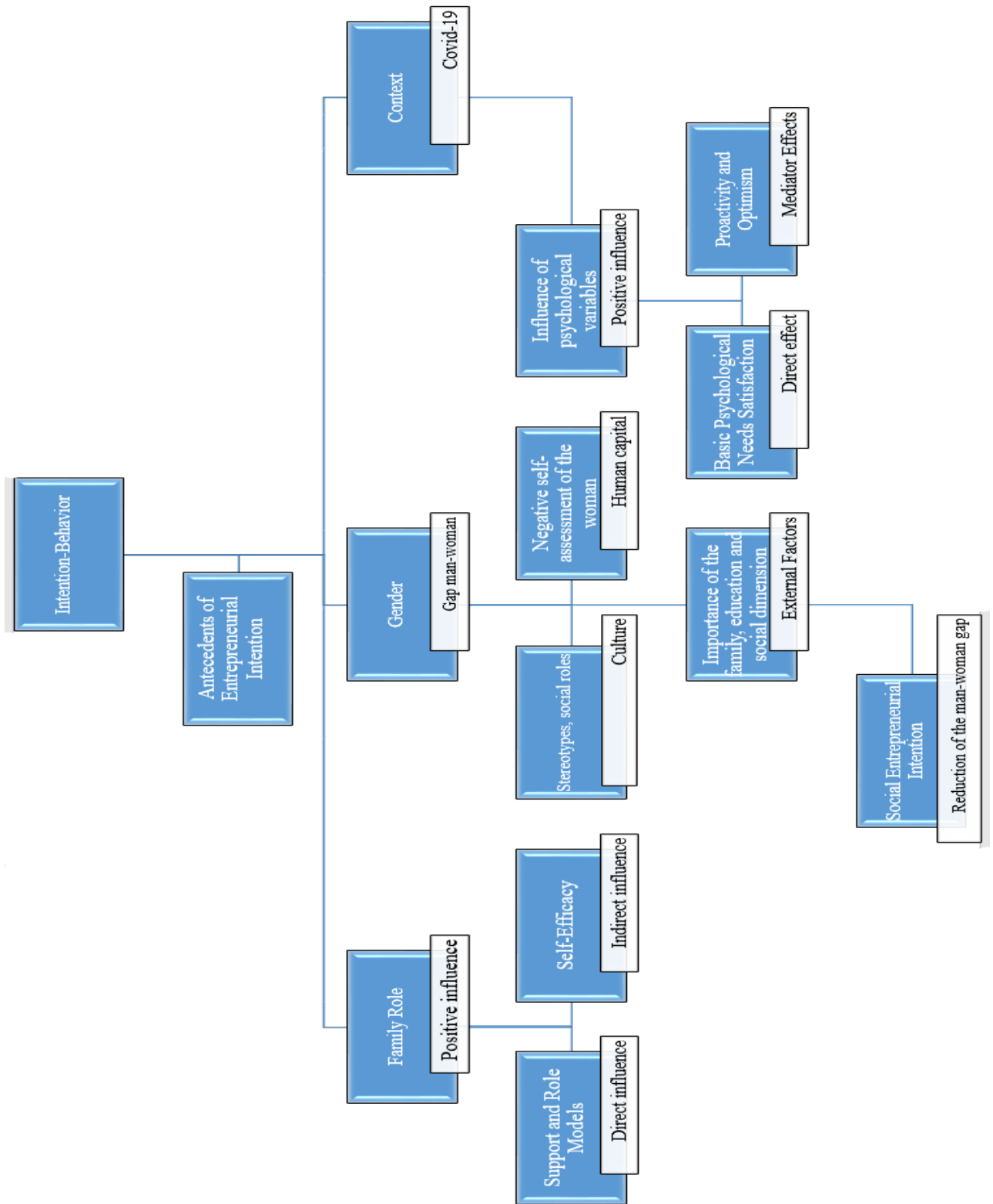
In relation to the influence of psychological variables and a context perceived as uncertain and risky on entrepreneurial intention (specific objective 6; hypothesis 6-10) it has been hypothesized that: the perception of the Covid-19 pandemic is negatively associated with entrepreneurial intentions (H6a) and is positively associated with the entrepreneurial intentions (H6b) of university students; proactivity is positively correlated with students' entrepreneurial intentions (H7); optimism is positively correlated with students' entrepreneurial intentions (H8), the relationship between the perception of the Covid-19 pandemic and entrepreneurial intentions is mediated by proactivity (H9a) and optimism (H9b), the relationship between basic psychological needs satisfaction and entrepreneurial intentions is mediated by proactivity (H10a) and optimism (H10b). The results showed that:

- The Covid-19 perception negatively influenced entrepreneurial intentions, while the basic psychological needs satisfaction positively influenced the entrepreneurial intentions of Latin American university students.
- Proactivity and optimism have positively influenced entrepreneurial intentions.
- Proactivity and optimism have mediated the relationship between the perception of Covid-19 and entrepreneurial intentions, statistically significantly reducing the

negative impact of the perception of the pandemic on the possibility of choosing an entrepreneurial career.

- Proactivity and optimism have mediated the relationship between the basic psychological needs satisfaction and entrepreneurial intentions, increasing the positive effects of satisfying psychological needs as a motivating factor towards the choice of an entrepreneurial career. When the environment is uncertain it is likely that people refer more to their skills and competences and develop entrepreneurial intentions when they believe they have the ability to find alternative solutions to overcome obstacles (be proactive), exploiting the positive aspects of the situation (be optimistic). Of course, people's confidence in their future and the implementation of proactive behaviors does not guarantee that they will be successful as entrepreneurs, however, it increases the likelihood that they will consider alternative paths (for example the choice of an entrepreneurial career), for change the status quo of a perceived adverse situation.

Figure 14. Mind Map



5.4 Conclusioni

In relazione alla valutazione della letteratura sul ruolo della famiglia nelle intenzioni imprenditoriali (obiettivo specifico 1) e all'ipotesi relativa all'influenza positiva del supporto percepito dalla famiglia nelle intenzioni imprenditoriali dei suoi membri (H1):

- Dall'analisi degli articoli pubblicati, é emerso il ruolo cruciale della famiglia, sia in termini di sostegno (morale, psicologico, finanziario), sia in termini di modelli positivi di ruolo imprenditoriali, utili a trasferire esperienze, conoscenze e competenze ai figli nella scelta di una carriera imprenditoriale (confronto tra famiglie imprenditoriali e famiglie non imprenditoriali).
- Dalla revisione della letteratura é emerso che la famiglia influenza le intenzioni imprenditoriali in modo diretto, ma anche in modo indiretto, attraverso la self-efficacy, e che entra in gioco nel processo educativo per migliorare le intenzioni imprenditoriali.
- Bisogna sottolineare che, del 22,6% degli articoli analizzati, relazionati specificamente al rapporto intenzione imprenditoriale e famiglia, solo uno studio ha trovato un'influenza non statisticamente significativa del supporto della famiglia sulle intenzioni imprenditoriali dei membri.

Rispetto al gap uomo-donna nelle intenzioni imprenditoriali (obiettivo specifico 2), é stato ipotizzato che le donne mostrassero livelli piú bassi, rispetto agli uomini, di intenzioni imprenditoriali (H2), in tal senso:

- La letteratura ha sottolineato il gap uomo-donna nelle intenzioni imprenditoriali, riconducibile a 2 ordini di fattori: contestuali (relativi all'ambiente socio-culturale, stereotipi di genere, scarso accesso ai finanziamenti), variabili individuali (relativi ad una auto-valutazione della donna come carente di competenze e conoscenze imprenditoriali, rispetto agli uomini).
- Dalla revisione della letteratura é emersa una visione dell'imprenditorialità centrata sull'uomo. Ad esempio, molte delle variabili che vengono studiate in

relazione all'intenzione imprenditoriale sono considerate come stereotipicamente "maschili", accennando le differenze di genere: più alti livelli di propensione al rischio, indipendenza e autonomia negli uomini rispetto alle donne.

- Nasce l'esigenza di utilizzare paradigmi differenti nello studio dell'imprenditorialità femminile, come un campo di ricerca che è il risultato di fattori contestuali e psicologici diversi.
- Dall'analisi è emerso il ruolo di alcuni fattori esterni che potrebbero aiutare le donne nella scelta di una carriera imprenditoriale: l'educazione (accresce le conoscenze e le competenze nelle studentesse, e interagisce con l'autoefficacia, aumentando, di conseguenza, i livelli di intenzione imprenditoriale), la famiglia come fonte di sostegno economico (soprattutto quando i supporti esterni appaiono limitati), ma anche come appoggio morale e psicologico nella conciliazione tra vita privata e crescita professionale; l'importanza della dimensione sociale dell'imprenditorialità come fattore che, conciliandosi maggiormente con i valori e le motivazioni delle donne, nonché con il ruolo sociale delle stesse, è stato considerato un paradigma alternativo che potrebbe aiutare le donne nella scelta di una carriera imprenditoriale.

In relazione all'analisi dell'intenzione imprenditoriale sociale (obiettivi specifici 3 e 4), è stato ipotizzato che, in letteratura, gli antecedenti delle intenzioni imprenditoriali sociali siano state analizzate in relazioni a variabili diverse, rispetto all'imprenditorialità commerciale (H3), e che il divario uomo-donna che caratterizza la letteratura dell'imprenditorialità commerciale, si riduca significativamente in riferimento all'intenzione imprenditoriale sociale (H4):

- Dall'analisi della letteratura è emerso che l'intenzione imprenditoriale sociale è stata analizzata in relazioni a variabili più "comunitari" rispetto all'intenzione imprenditoriale commerciale. Nello specifico, le variabili che maggiormente sono state analizzate fanno riferimento all'empatia (considerata il fattore chiave), self-efficacy sociale, obbligo morale, intelligenza emotiva, supporto sociale percepito, motivazioni prosociali, esperienze pregresse con

problemi sociali e resilienza.

- I risultati hanno mostrato che le donne sono più inclini alla scelta di una carriera imprenditoriale sociale. Le ragioni sono diverse: la ricerca suggerisce che le caratteristiche intrinseche e specifiche dell'imprenditorialità sociale (ad es., la centralità degli obiettivi sociali e la creazione di valore sociale, la presenza di valori maggiormente ispirati alla cura dell'altro) si adattano meglio alle esigenze delle donne, al loro modo di lavorare (relazioni di alta qualità) e al rispetto verso le sue priorità (pari opportunità, maggiore equilibrio tra lavoro e vita privata).

Relativamente all'adattamento e validazione della scala sui bisogni psicologici di base (BPNSF) nel contesto spagnolo (obiettivo specifico 5), attraverso l'analisi delle proprietà psicometriche e l'analisi di invarianza rispetto al genere e al tipo di studi (H5):

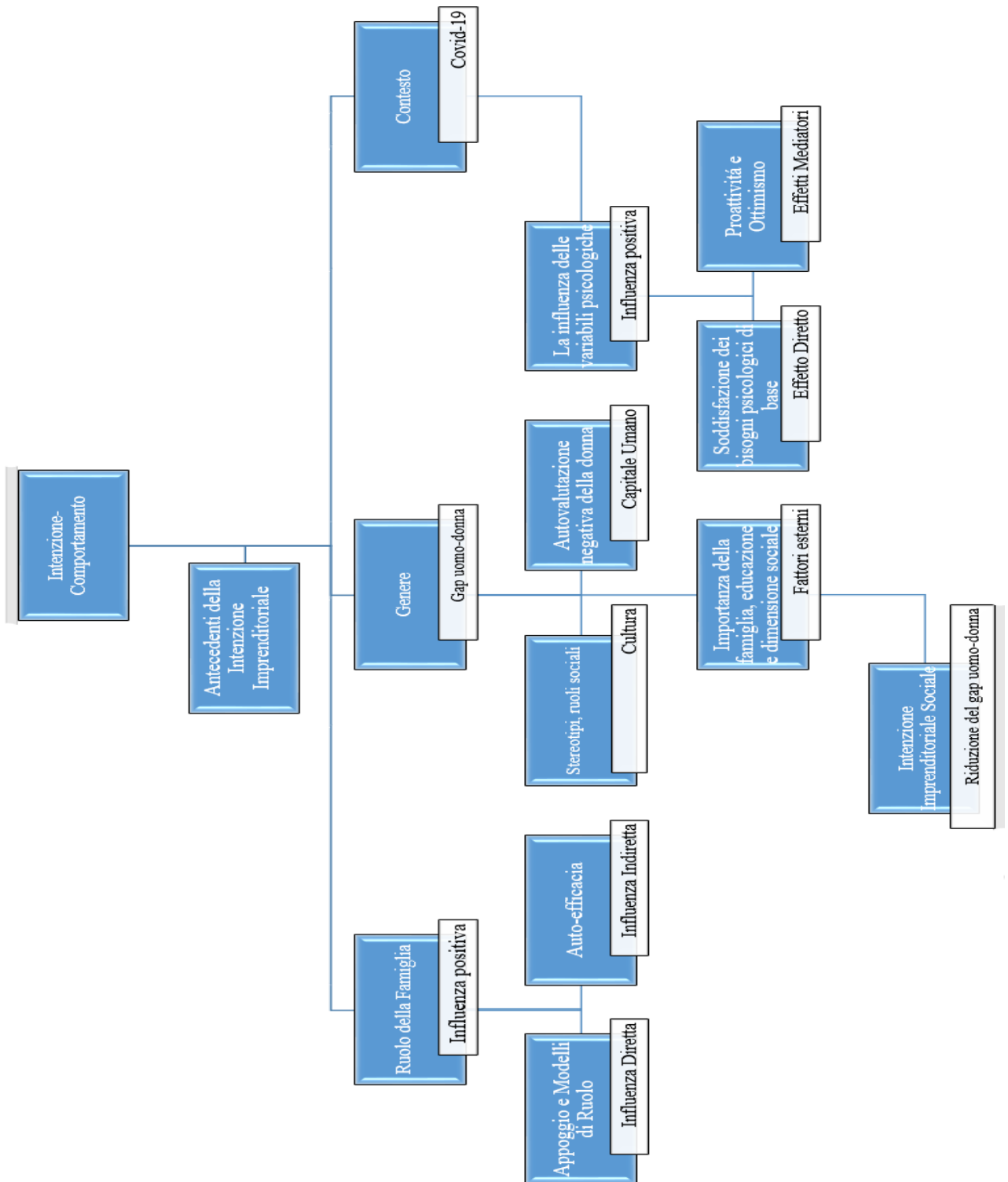
- I risultati hanno mostrato evidenze sull'adeguato adattamento psicometrico della scala nel contesto spagnolo e un'elevata consistenza interna. Inoltre, le analisi hanno confermato la struttura multifattoriale della scala originale (6 fattori e 24 items), considerando le dimensioni della soddisfazione e della frustrazione come due costrutti separati, in linea con i presupposti teorici del modello della Self-Determination.
- L'analisi del modello di misurazione dell'invarianza ha confermato l'adeguatezza psicometrica della scala, anche relativamente al genere e tipo di studi.

In relazione all'analisi delle variabili psicologiche e di un contesto percepito come incerto e rischioso nei confronti dell'intenzione imprenditoriale (obiettivo specifico 6; ipotesi 6-10) è stato ipotizzato che: la percezione della pandemia di Covid-19 è associata negativamente alle intenzioni imprenditoriali (H6a) e la soddisfazione dei bisogni psicologici di base è associata positivamente alle intenzioni imprenditoriali (H6b) degli studenti universitari; la proattività è positivamente correlata alle intenzioni imprenditoriali degli studenti (H7); l'ottimismo è positivamente correlato alle intenzioni imprenditoriali degli studenti (H8), la relazione tra la percezione della pandemia di Covid-19 e le intenzioni imprenditoriali è mediata dalla proattività (H9a) e dall'ottimismo (H9b), il

rapporto tra soddisfazione dei bisogni psicologici e intenzioni imprenditoriali è mediato dalla proattività (H10a) e dall'ottimismo (H10b). I risultati hanno mostrato che:

- La percezione del Covid-19 ha influenzato negativamente le intenzioni imprenditoriali, mentre la soddisfazione dei bisogni psicologici di base ha influenzato positivamente le intenzioni imprenditoriali degli studenti universitari latinoamericani.
- La proattività e l'ottimismo hanno influenzato positivamente le intenzioni imprenditoriali.
- La proattività e l'ottimismo hanno mediato la relazione tra la percezione del Covid-19 e le intenzioni imprenditoriali, riducendo in modo statisticamente significativo l'impatto negativo della percezione della pandemia sulla possibilità di scegliere una carriera imprenditoriale.
- La proattività e l'ottimismo hanno mediato la relazione tra la soddisfazione dei bisogni psicologici di base e le intenzioni imprenditoriali, aumentando gli effetti positivi della soddisfazione dei bisogni psicologici come fattore motivante verso la scelta di una carriera imprenditoriale.
- Quando l'ambiente è incerto è probabile che le persone facciano maggiormente riferimento alle proprie capacità e competenze e sviluppino intenzioni imprenditoriali quando credono di avere le capacità per trovare soluzioni alternative per superare gli ostacoli (essere propositivi), sfruttando gli aspetti positivi della situazione (essere ottimisti). Naturalmente, la fiducia delle persone verso il loro futuro e la messa in atto di comportamenti proattivi non garantisce che avranno successo come imprenditori, aumenta, però, la probabilità che prendano in considerazione percorsi alternativi (ad esempio la scelta di una carriera imprenditoriale), per cambiare lo status quo di una situazione percepita come avversa.

Figura 15. Mappa Mentale



6

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7

Apéndice

7.1. Apéndice 1: Basic Psychological Need Satisfaction and Frustration Scale (BPNSF) – Versión Española

<i>Satisfacción de Autonomía</i>					
1. Me siento libre en la elección de las cosas que yo realizo	1	2	3	4	5
2. Siento que mis decisiones reflejan lo que realmente quiero	1	2	3	4	5
3. Siento que mis elecciones expresan quién soy realmente	1	2	3	4	5
4. Siento que he estado haciendo lo que realmente me interesa	1	2	3	4	5
<i>Frustración de Autonomía</i>					
5. Muchas de las cosas que hago las siento como obligación, como "tengo que..."	1	2	3	4	5
6. Me siento obligado a hacer algunas cosas que no elegiría hacer	1	2	3	4	5
7. Me siento presionado a hacer demasiadas cosas	1	2	3	4	5
8. Mis actividades diarias las siento como una cadena de obligaciones	1	2	3	4	5
<i>Satisfacción de Relación</i>					
9. Siento que las personas que me importan también se preocupan por mí	1	2	3	4	5
10. Me siento conectado con las personas que me cuidan y que son importantes para mí	1	2	3	4	5
11. Me siento cercano y conectado con otras personas que son importantes para mí	1	2	3	4	5
12. Experimento un sentimiento cálido con las personas con las que paso el tiempo	1	2	3	4	5
<i>Frustración de Relación</i>					
13. Me siento excluido del grupo al que quiero pertenecer	1	2	3	4	5
14. Siento que las personas que son importantes para mí son frías y distantes conmigo	1	2	3	4	5
15. Tengo la impresión de que las personas con las que paso el tiempo no me aprecian	1	2	3	4	5
16. Siento que las relaciones que tengo son simplemente superficiales	1	2	3	4	5
<i>Satisfacción de Competencia</i>					
17. Tengo confianza en que puedo hacer bien las cosas	1	2	3	4	5
18. Me siento capaz en aquello que yo hago	1	2	3	4	5
19. Me siento competente para lograr mis objetivos	1	2	3	4	5
20. Siento que puedo completar con éxito tareas difíciles	1	2	3	4	5

Frustración de Competencia

21. Tengo serias dudas sobre si puedo hacer bien las cosas	1	2	3	4	5
22. Me siento decepcionado con algunas de mis actuaciones	1	2	3	4	5
23. Me siento inseguro sobre mis habilidades	1	2	3	4	5
24. Me siento como fracasado por los errores que cometo	1	2	3	4	5

7.2. Apéndice 2: C-19 Future Impact Perception Scale (C-19FIPS)

1. El COVID-19 disminuirá mis oportunidades laborales	1	2	3	4	5
2. El Covid-19 disminuirá mis oportunidades laborales	1	2	3	4	5
3. El Covid-19 afectará negativamente mi futuro	1	2	3	4	5
4. El Covid-19 afectará negativamente a mis recursos económicos	1	2	3	4	5
5. El Covid-19 limitará mis posibilidades de éxito profesional	1	2	3	4	5
6. El Covid-19 disminuirá mis opciones de encontrar trabajo	1	2	3	4	5
7. El Covid-19 afectará negativamente a la economía de mi país	1	2	3	4	5
8. El Covid-19 destruirá muchos puestos de trabajo en mi país	1	2	3	4	5
9. El COVID-19 traerá el cierre de muchas empresas en mi país	1	2	3	4	5
10. El COVID-19 afectará negativamente a las micropymes en mi país	1	2	3	4	5
11. El Covid-19 afectará negativamente el futuro de mi país	1	2	3	4	5
12. El Covid-19 afectará negativamente a los emprendedores de mi país	1	2	3	4	5
13. El Covid-19 hará que no se creen empresas en mi país	1	2	3	4	5
14. El Covid-19 disminuirá las oportunidades laborales en mi país	1	2	3	4	5

Algoritmo de puntuación: para calcular los valores medios de cada subescalas, sume los ítems de cada subescala y divídalos por el número total de ítems:

- Ítems C-19PF (Factor Personal): media (1, 2, 3, 4, 5, 6).
- Ítems C-19CF (Factor del País): media (7, 8, 9, 10, 11, 12, 13, 14).

7.3 Apendice 3: Otros instrumentos de evaluación empleados

7.3.1 COE- Escala de Intención Emprendedora

1. Yo estoy preparado/a para hacer cualquier cosa para llegar a ser emprendedor/a	1	2	3	4	5
2. Mi objetivo profesional es llegar a ser un/a emprendedor/a	1	2	3	4	5
3. Haré cualquier esfuerzo para comenzar y desarrollar mi propia empresa	1	2	3	4	5
4. Yo estoy decidido a crear una empresa en el futuro	1	2	3	4	5
5. Yo he pensado muy seriamente en crear una empresa	1	2	3	4	5
6. Yo tengo la firme intención de montar una empresa algún día	1	2	3	4	5

7.3.2 COE – Escala de Proactividad

1. Estoy constantemente buscando nuevas formas de mejorar mi vida	1	2	3	4	5
2. Donde quiera que haya estado (en clase, deportes, agrupación juvenil...), he sido un importante promotor de cambios	1	2	3	4	5
3. Nada es más excitante que ver mis ideas hechas realidad	1	2	3	4	5
4. Si veo algo que no me gusta, lo cambio	1	2	3	4	5
5. No importa lo que cueste, si creo en algo haré que suceda	1	2	3	4	5
6. Me encanta ser defensor de mis ideas incluso con la oposición de otros	1	2	3	4	5
7. Destaco identificando oportunidades	1	2	3	4	5
8. Siempre estoy buscando mejores formas de hacer las cosas	1	2	3	4	5
9. Si creo en una idea, ningún obstáculo me impedirá hacerla realidad	1	2	3	4	5
10. Puedo detectar una buena oportunidad mucho antes que otros	1	2	3	4	5

7.3.3 PROE – Escala de Optimismo

1. Creo que conseguiré las principales metas de mi vida	1	2	3	4	5
2. Cuando pienso en el futuro soy positivo	1	2	3	4	5
3. Me ocurren más cosas buenas que malas	1	2	3	4	5
4. Veo cada reto como una oportunidad de éxito	1	2	3	4	5
5. Por muy mal que salgan las cosas encuentro aspectos positivos	1	2	3	4	5
6. Veo los aspectos positivos de las cosas	1	2	3	4	5
7. Tengo confianza en superar los problemas	1	2	3	4	5
8. Tengo confianza en el futuro	1	2	3	4	5
9. Soy una persona optimista	1	2	3	4	5