UNIVERSITÄT TRIER

Determinants and Consequences of Social Entrepreneurship

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von

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Preface

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List of Abbreviations

ABS	Association of Business Schools
CIS	Condition index statistic
Coeff	coefficient
DF	Degree of freedom
e.g.	Exempli gratia (for example)
EaSI	Employment and Social Innovation
ENT-SBM	Entrepreneurship and Small Business Management
et al.	Et alii (and others)
ETHICS-CSR- MAN	General Management, Ethics, and Social Responsibility
EUR	Euro
GA	Government activism
GDP	Gross domestic product
GEM	Global Entrepreneurship Monitor
GNI	Gross national income
HDI	Human development index
HIV	Human immunodeficiency virus
IB&AREA	International business and studies area
ICC	Inter-class correlation
INNOV	Innovation
N	Sample size
OECD	Organization for Economic Co-operation and Development
OR&MANSCI	Operations Research and Management Science
ORG STUD	Organization Studies
PM	Post-materialism
PSYCH (WOP-OB)	Psychology (Organizational)

RQ	Research question
RS	Replication study
SD	Standard deviation
SE	Social Entrepreneurship
SE	Standard error
SEA	Social entrepreneurial activities
SSC	Socially supportive culture
STRAT	Strategy
UK	United Kingdom
US	United States
VIF	Variance inflation factor
WVS	World vales survey

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German	Basic
Urdu	Native
Punjabi	Native

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Zusammenfassung

Soziales Unternehmertum ist eine erfolgreiche Form der unternehmerischen Tätigkeit zur Lösung von sozialen Problemen und wirtschaftlichen Herausforderungen. Soziales Unternehmertum nutzt Techniken und Instrumente der gewinnorientierten Industrie, um finanziell gesunde Unternehmen aufzubauen, die gemeinnützige Dienstleistungen erbringen. Sozialunternehmerische Aktivitäten führen auch zur Erreichung der Ziele der nachhaltigen Entwicklung. Aufgrund des komplexen, hybriden Charakters des Unternehmens werden sozialunternehmerische Aktivitäten jedoch in der Regel durch Determinanten auf der Makroebene unterstützt. Um unser Wissen darüber zu erweitern, wie förderlich Determinanten auf der Makroebene sein können, untersucht diese Arbeit empirische Erkenntnisse über die Auswirkungen von Determinanten auf der Makroebene auf soziales Unternehmertum. Ein weiteres Ziel dieser Dissertation ist es, die Auswirkungen auf der Mikroebene zu untersuchen, da sich die Wachstumsambitionen von sozialen und kommerziellen Unternehmern unterscheiden. Zu Beginn wird in Kapitel 1 der einleitende Abschnitt erläutert, der die Motivation für die Forschung, die Forschungsfrage und die Struktur der Arbeit enthält.

Es gibt eine anhaltende Debatte über den Ursprung und die Definition von sozialem Unternehmertum. Daher werden in der bisherigen Literatur die zahlreichen Phänomene des sozialen Unternehmertums theoretisch untersucht. Um den gemeinsamen Konsens zum Thema zu ermitteln, werden in Kapitel 2 die theoretischen Grundlagen und die Definition des sozialen

Unternehmertums dargelegt. Die Literatur belegt, dass eine Vielzahl von Determinanten auf der Mikro- und Makroebene für die Entstehung von sozialem Unternehmertum als charakteristisches Geschäftsmodell wesentlich sind (Hartog & Hoogendoorn, 2011; Stephan et al., 2015; Hoogendoorn, 2016). Es ist unmöglich, eine Gesellschaft zu schaffen, die auf einer sozialen Mission basiert, ohne die Unterstützung von Determinanten auf Mikro- und Makroebene. In dieser Arbeit werden die Determinanten und Folgen des sozialen Unternehmertums aus verschiedenen methodischen Perspektiven untersucht. Die theoretischen Grundlagen der Determinanten auf der Mikro- und Makroebene, die sozialunternehmerische Aktivitäten beeinflussen, wurden in Kapitel 3 erörtert

Der Zweck der Reproduzierbarkeit in der Forschung besteht darin, bereits veröffentlichte Ergebnisse zu bestätigen (Hubbard et al., 1998; Aguinis & Solarino, 2019). Aufgrund des Fehlens von Daten, der mangelnden Transparenz der Methodik, der Zurückhaltung bei der Veröffentlichung und des mangelnden Interesses der Forscher fehlt es jedoch an der Förderung der Replikation der bestehenden Forschungsstudie (Baker, 2016; Hedges & Schauer, 2019a). Die Förderung von Replikationsstudien wurde in der Wirtschafts- und Managementliteratur regelmäßig betont (Kerr et al., 2016; Camerer et al., 2016). Studien, die eine Replizierbarkeit der angegebenen Ergebnisse liefern, werden in der bisherigen Forschung jedoch als selten angesehen (Burman et al., 2010; Ryan & Tipu, 2022). In Anlehnung an die Forschung von Köhler und Cortina (2019) wird in Kapitel 4 dieser Arbeit eine empirische Untersuchung zu diesem Thema durchgeführt.

In Anbetracht dieses Schwerpunkts haben Forscher eine Vielzahl von Forschungsarbeiten über die Auswirkungen von Determinanten auf der Mikro- und Makroebene auf die soziale Eingliederung veröffentlicht, obwohl immer noch unklar ist, ob diese Studien die Realität richtig wiedergeben. Es ist wichtig, durch eine Neubewertung der veröffentlichten Ergebnisse eine konzeptionelle Untermauerung auf diesem Gebiet zu bieten

(Bettis et al., 2016). Die Ergebnisse ihrer Forschung machen überdeutlich, dass die Makro-Determinanten soziales Unternehmertum unterstützen. Im Einklang mit dem eher narrativen Ansatz, der ein entscheidendes Anliegen ist und Aufmerksamkeit erfordert, wurde in Kapitel 5 die Reproduzierbarkeit früherer Ergebnisse, insbesondere zum Thema soziales Unternehmertum, berücksichtigt. Wir replizierten die Ergebnisse von Stephan et al. (2015), um die Tendenz der Reproduzierbarkeit festzustellen und die von ihnen gezogenen spezifischen Schlussfolgerungen zu validieren. Die wörtliche und konstruktive Replikation in der Dissertation hat uns dazu inspiriert, die technische Replikationsforschung zum sozialen Unternehmertum zu untersuchen.

Kapitel 6 bewertet die grundlegenden Merkmale, die sich als Schlüsselfaktoren für das Wachstum von Social Ventures erwiesen haben. Die aktuelle Debatte überprüft und verweist auf Literatur, die sich speziell auf die Entwicklung von Social Entrepreneurship konzentriert hat. Außerdem wird eine empirische Analyse von Faktoren durchgeführt, die in direktem Zusammenhang mit dem ehrgeizigen Wachstum von Social Entrepreneurship stehen. Zahlreiche soziale Unternehmergruppen wurden in Bezug auf diesen Verein untersucht. Kapitel 6 vergleicht die Wachstumsambitionen des sozialen und traditionellen (kommerziellen) Unternehmertums als Konsequenzen auf der Mikroebene. Diese Studie untersuchte viele Merkmale der Wachstumsambitionen sozialer und kommerzieller Unternehmer. Wissenschaftler haben zu einem gewissen Grad behauptet, dass sich das Wachstum des sozialen Unternehmertums aufgrund von Objektivitätsunterschieden von kommerziellen unternehmerischen Aktivitäten unterscheidet (Lumpkin et al., 2013; Garrido-Skurkowicz et al., 2022). Qualitative Forschung wurde in Studien verwendet, um die Fakten zu verwandten Themen zu untermauern, einschließlich Gupta et al (2020) betonte, dass sich die Forschung auf bestimmte Konzepte des sozialen Unternehmertums konzentrieren muss, damit sich das Feld weiterentwickeln kann. Daher bietet diese Studie eine quantitative,

analysebasierte Bewertung von Fakten und Daten. Dazu wurde ein Datensatz des Global Entrepreneurship Monitor (GEM) 2015 herangezogen, der 12.695 Unternehmer aus 38 Ländern untersuchte. Darüber hinaus wurde in dieser Arbeit eine Regressionsanalyse durchgeführt, um den Einfluss verschiedener sozialer und kommerzieller Merkmale von Unternehmertum auf das Wirtschaftswachstum in Entwicklungsländern zu bewerten. In Kapitel 7 werden kurz die zukünftigen Richtungen und praktischen/theoretischen Konsequenzen erläutert.

Summary

Social entrepreneurship is a successful activity to solve social problems and economic challenges. Social entrepreneurship uses for-profit industry techniques and tools to build financially sound businesses that provide nonprofit services. Social entrepreneurial activities also lead to the achievement of sustainable development goals. However, due to the complex, hybrid nature of the business, social entrepreneurial activities are typically supported by macro-level determinants. To expand our knowledge of how beneficial macro-level determinants can be, this work examines empirical evidence about the impact of macro-level determinants on social entrepreneurship. Another aim of this dissertation is to examine the impact at the micro level, as the growth ambitions of social and commercial entrepreneurs differ. At the beginning, the introductory section is explained in Chapter 1, which contains the motivation for the research, the research question, and the structure of the work.

There is an ongoing debate about the origin and definition of social entrepreneurship. Therefore, the numerous phenomena of social entrepreneurship are examined theoretically in the previous literature. To determine the common consensus on the topic, Chapter 2 presents the theoretical foundations and definition of social entrepreneurship. The literature shows that a variety of determinants at the micro and macro levels are essential for the emergence of social entrepreneurship as a distinctive business model (Hartog & Hoogendoorn, 2011; Stephan et al., 2015; Hoogendoorn, 2016). It is impossible to create a society based on a social mission

without the support of micro and macro-level-level determinants. This work examines the determinants and consequences of social entrepreneurship from different methodological perspectives. The theoretical foundations of the micro- and macro-level determinants influencing social entrepreneurial activities were discussed in Chapter 3

The purpose of reproducibility in research is to confirm previously published results (Hubbard et al., 1998; Aguinis & Solarino, 2019). However, due to the lack of data, lack of transparency of methodology, reluctance to publish, and lack of interest from researchers, there is a lack of promoting replication of the existing research study (Baker, 2016; Hedges & Schauer, 2019a). Promoting replication studies has been regularly emphasized in the business and management literature (Kerr et al., 2016; Camerer et al., 2016). However, studies that provide replicability of the reported results are considered rare in previous research (Burman et al., 2010; Ryan & Tipu, 2022). Based on the research of Köhler and Cortina (2019), an empirical study on this topic is carried out in Chapter 4 of this work.

Given this focus, researchers have published a large body of research on the impact of micro- and macro-level determinants on social inclusion, although it is still unclear whether these studies accurately reflect reality. It is important to provide conceptual underpinnings to the field through a reassessment of published results (Bettis et al., 2016). The results of their research make it abundantly clear that the macro determinants support social entrepreneurship. In keeping with the more narrative approach, which is a crucial concern and requires attention, Chapter 5 considered the reproducibility of previous results, particularly on the topic of social entrepreneurship. We replicated the results of Stephan et al. (2015) to establish the trend of reproducibility and validate the specific conclusions they drew. The literal and constructive replication in the dissertation inspired us to explore technical replication research on social entrepreneurship.

Chapter 6 evaluates the fundamental characteristics that have proven to be key factors in the growth of social ventures. The current debate reviews and references literature that has specifically focused on the development of social entrepreneurship. An empirical analysis of factors directly related to the ambitious growth of social entrepreneurship is also carried out. Numerous social entrepreneurial groups have been studied concerning this association. Chapter 6 compares the growth ambitions of social and traditional (commercial) entrepreneurship as consequences at the micro level. This study examined many characteristics of social and commercial entrepreneurs' growth ambitions. Scholars have claimed to some extent that the growth of social entrepreneurship differs from commercial entrepreneurial activities due to objectivity differences (Lumpkin et al., 2013; Garrido-Skurkowicz et al., 2022). Qualitative research has been used in studies to support the evidence on related topics, including Gupta et al (2020) emphasized that research needs to focus on specific concepts of social entrepreneurship for the field to advance. Therefore, this study provides a quantitative, analysis-based assessment of facts and data. For this purpose, a data set from the Global Entrepreneurship Monitor (GEM) 2015 was used, which examined 12,695 entrepreneurs from 38 countries. Furthermore, this work conducted a regression analysis to evaluate the influence of various social and commercial characteristics of entrepreneurship on economic growth in developing countries. Chapter 7 briefly explains future directions and practical/theoretical implications.

1 Introduction

Abstract: *In the first chapter, Section 1.1 describes the motivational dynamics underlying this dissertation. Section 1.2 then summarizes the structure of the dissertation, and Section 1.3 formulates the number of different research questions treated in the dissertation.*

1.1 Research motivation

Scholars and policymakers view social entrepreneurship (SE) as being of paramount importance (Kraus et al., 2014; Weerakoon, 2021; Ranville & Barros, 2021). SE aims to reduce socioeconomic and environmental concerns (Roy et al., 2014; Steiner & Teasdale, 2019; Weaver & Blakey, 2022) and to aid in achieving the Sustainable Development Goals (SDGs; Diaz-Sarachaga & Ariza-Montes, 2022). Prior research has indicated that social entrepreneurs typically compete in risky and profit-driven markets with limited resources, demoralizing actors, cultural disparities, and constrained growth (Sivathanu & Bhise, 2013; Lehner & Germak, 2014; Germak & Robinson, 2014; Alegre, 2015; Battilana, 2018; Chipeta et al., 2022; Kimmitt et al., 2022). These obstacles may reduce people's motivation to engage in social entrepreneurial activity. Even individuals in developed countries such as Germany find it unappealing to engage in SE if the government does not provide subsidies and support for them (Cagarman et al., 2020b).

Scholars responded to this problem by claiming that motivating determinants may persuade social entrepreneurs to continue engaging in social entrepreneurial activities (Griffiths et al., 2013; Hockerts, 2017; Nicolás et al., 2018; Oliński & Mioduszewski, 2022; Naderi et al., 2022). In this regard, scholars argue that macro-level determinants, particularly collective opportunity and resources, effective governance, and shared values, have cumulative influences on SE (Hartog & Hoogendoorn, 2011; Hoogendoorn, 2016; Aponte et al., 2019). According to scholars, macro-level determinants determine, promote, and regulate entrepreneurs' decisions to participate in SE (Felício et al., 2013; Busch, 2014; El Chaarani & Raimi, 2021). However, investigation regarding the impact of macro-level determinants on SE has not yet received the attention it deserves in the literature. The abovementioned assertions make it difficult to overlook further investigation.

The majority of academics, however, wish to develop social entrepreneurship research in new directions. While novelty has a positive impact on the study, researchers also believe that replication using publicly available data sets is one of the best ways to progress the field of entrepreneurship research (Köhler & Cortina, 2019; Anderson et al., 2019). Many scholars have pointed out to initiate the trend of replicability and reproducibility so facts and figures can have some supporting evidence from other authors as well. Replication and reproducibility are crucial for detecting errors and fraudulent activity in published works as well as verifying their legitimacy (Easley, Madden & Gray, 2013; Stroebe & Strack, 2014; Nosek & Errington, 2020; Schmidt, 2016). Additionally, reproducibility aids in the application of technique and field-based experimental standards by other scholars. Replication studies are therefore widely regarded as a crucial component of investigations to assess the conclusions of previously published work. However, replication of the existing research work is lacking in its promotion due to lack of data, transparency of methodology, resistance to publication, and also lack of attention of scholars (Baker, 2016, Hedges, & Schauer, 2019a). Therefore, it is essential to both reevaluate and expand upon these determinants using a comprehensive methodology, as the body of available research lacks sufficient evidence on the topic.

Furthermore, scholars claim that the aspirations of entrepreneurs are typically intention and motivation-based behaviors (Estrin et al., 2013a, 2022). There is debate among scholars regarding whether the efforts and behavior involved in the growth of social enterprises (SEs) are comparable to those involved in the growth of commercial enterprises (Williams & Nadin, 2011; Bacq et al., 2011; Estrin et al., 2013b). This debate has emerged because social enterprises are more concerned with generating social change than with gaining a competitive edge (Dees et al., 2004; Bloom & Chatterji, 2009; Abu-Saifan, 2012; Barraket & Yousefpour, 2013; Battilana & Lee, 2014; White et al., 2022). Therefore, scholars consider social enterprises to be risk-averse and content with moderate growth (Hynes, 2009; Hoogendoorn et

al., 2011; Smith et al., 2013; Vickers & Lyon, 2014; Davies et al., 2019). In contrast to social enterprises, the primary objective of commercial enterprises is to achieve rapid financial growth (Hessels et al., 2008; Karadeniz & Özçam, 2010; Halberstadt & Kraus, 2016; Li, Wang & Long, 2019). The following then question arises: Is there a difference between the growth aspirations of social and commercial entrepreneurship? A growing corpus of research has highlighted the need to investigate entrepreneurial growth ambitions (Tominc & Rebernik, 2007; Verheul & Van, 2011; Carlson & Koch, 2018; Darnihamedani & Terjesen, 2020; Estrin, Korosteleva, & Mickiewicz, 2022). However, there is insufficient evidence in the literature to support the claim that social and commercial entrepreneurship have different growth ambitions.

The current thesis underlines the importance of SE as a developing academic discipline that has the potential to address a variety of societal and environmental issues. The primary goal of the study is to examine how macro-level determinants affect people's preferences regarding engagement in SE and their ambitions for growth at the micro level. When developing interventions and policies that seek to improve health and well-being, it is essential to comprehend the importance of micro and macro-level determinants. To offer an empirical overview of the interventions necessary to promote SE, this thesis conducts replication research based on the macro-level determinants of SE. Likewise, to elaborate on the micro-level effects, recent work has compared the growth ambitions of social and commercial entrepreneurship. By undertaking an empirical review of these replication studies, the current thesis also makes a methodological contribution to the existing body of research on the topic.

1.2 Research questions and their contribution

1.2.1 Determinants of SE

As a social mission-based activity, SE functions in a crucial environment (Peredo & McLean, 2006). Previous research indicates that individuals are primarily motivated by

significant factors to take on social entrepreneurship despite the difficulties and intricate cultural context (Hechavarría, 2016; Omorede, 2014; Yitshaki & Kropp, 2016; Douglas & Prentice, 2019; Kruse et al., 2021; Leković., 2021). Entrepreneurs have to weigh political, legal, and financial considerations to measure their societal and financial responsibilities as influential determinants (Samuel et al., 2018; MacDonald & Howorth, 2018). They also need the government to provide them with funding and flexible laws (Baptista et al., 2019; Kiss et al., 2021). In response to the discussion, scholars have specifically highlighted the macro-level determinants that have a substantial influence on the capacity of entrepreneurs to engage in social entrepreneurial activities (Hartog & Hoogendoorn, 2011; Dorado & Ventresca, 2013; Hoogendoorn, 2016; Mitra et al., 2022).

According to Anderson et al. (2019), the social sciences are facing a crisis of replication and legitimacy that is causing the field of entrepreneurship to reevaluate long-held beliefs. Further, they addressed that scholars need to use "backward forecasting," which is useful for modelling outcomes at the macro level that vary greatly in context and time. To examine the impact of the macro-level on SE, literal replication, as well as constructive replication, are essential methodological tools. From research that has explored the impact of macro-level determinants, the work of Stephan et al. (2015) is considered remarkable. Their results support the notion that the magnitude of macro-level determinants affects the level of social entrepreneurial activity. Stephan et al.'s (2015) study offers both methodological transparency and data setting with substantial findings that contribute to the field. Hence, this study conducts both a literal and a constructive replication of Stephan et al.'s (2015) study. To highlight the research gap, we address the following research questions:

RQ1: *What are the literal replication findings of Stephan et al.'s (2015) study?*

RQ2: *What is the finding of the extension of Stephan et al.'s (2015) study?*

RQ3: *How are literal and constructive replications by Stephan et al. (2015) justified?*

To conduct literal and constructive replication, we reproduced the data set of 106,484 people divided into 26 nations from Stephan et al.'s (2015) study. To provide empirical evidence, we also performed a logistic regression analysis. In addition, we obtained a dataset from 20 nations that included 74,833 people of a new dataset to revise the results.

1.2.2 Consequences of SE as Growth Ambition

According to the World Economic Forum, one of the largest social enterprises, the Schwab Foundation, has helped 622 million people by providing them with jobs and the startup capital they need to start their businesses through social entrepreneurship. Through its initiatives, the foundation has also helped to reduce the 192 million tons of CO2 emissions (Schwab Foundation for Social Entrepreneurship, 2020). In addition to improving social, environmental, economic, and modernization, social businesses have also had a positive impact on the awareness, behavior change, community empowerment, policy influence, and sustainability fronts (Barraket et al., 2019; Haugh & Talwar, 2016; Rahdari et al., 2016; Bansal, Garg, & Sharma, 2019; Akter., 2020; Islam, 2022). Through the revolutionary contribution of green innovation and energy-saving solutions, social entrepreneurial activities are demonstrating the necessity for growth and promotion in this field.

Hynes (2009) asserts that social entrepreneurs do have a strong desire to expand based on exclusive financial and social criteria. Needless to add, high-growth businesses frequently make substantial contributions to the economy and society (Delmar et al., 2003; Wong et al., 2005; Davidsson et al., 2006; Shepherd & Wiklund, 2009; Minniti, 2013; Terjesen et al., 2016). This ultimately leads entrepreneurs to strive to enhance society significantly through the growth of their enterprise (Bager & Schott, 2004; Donohoe & Wyer, 2005; Dobbs & Hamilton, 2007; Verheul & Van, 2011; Cheraghi et al., 2014; Henríquez-Daza et al., 2019).

However, the existing literature raises the question of whether the growth ambitions regarding SE, when compared with those regarding commercial entrepreneurship, are related

to fundamentally varying characteristics (Clark et al., 2018; Garrido-Skurkowicz et al., 2022). This question is intriguing since SE prioritizes social objective-based growth, while commercial entrepreneurship is often based on financial growth (Roberts & Woods, 2005; Austin, Stevenson, & Wei-Skillern, 2006; Lumpkin et al., 2013; Stevens et al., 2015; Močnik & Širec, 2016). There is a dearth of precise and accurate statistics demonstrating the difference in growth ambitions between social and commercial entrepreneurship as micro-level consequences. Moreover, the development status of every economy differs, thus creating dynamic varying attitudes toward entrepreneurship (Hidalgo et al., 2020). It is still unclear how the growth ambitions of social and commercial entrepreneurs can differ among countries depending on the level of development. Therefore, we focus on the research questions stated below:

RQ4: *How do social and traditional entrepreneurs differ in their growth ambitions?*

RQ5: *What role does a country's level of development play in this relationship?*

In this study, we conduct an empirical investigation addressing the growth ambitions of social and commercial entrepreneurs. We examine 12,695 entrepreneurs from 38 different nations using data from the 2015 Global Entrepreneurship Monitor (GEM). We use regression analysis to illustrate how different aspects of social and commercial entrepreneurship affect growth ambitions in developing and developed economic settings.

1.2.3 Need for Replication Study

Replication and reproducibility are essential for demonstrating the reliability of a published work (Easley, Madden, & Gray, 2013; Stroebe & Strack, 2014; Nosek & Errington, 2020; Schmidt, 2016; Van, 2016; Walker et al., 2017). Replicability, according to Block and Kuckertz (2018), has a variety of re-implementation-related qualities and is a crucial element of contemporary research. Similarly, the replicability of reported facts confirms whether

published research is comprehensible and methodologically sound. However, scholars have devoted very little theoretical and practical attention to the publication of replication studies (Dewald et al., 1986; Hubbard & Armstrong, 1994; Hubbard, Vetter, & Little, 1998; Gamboa & Brouthers, 2008; Mueller-Langer et al., 2019). The reason for ignorance is due to a variety of reasons, including the preference of journals for novel research, a strong moral obligation, a lack of data, a fragmented methodology, and the prevalent failure to support retested conclusions. Considering these serious research issues in recent years, publication platforms, and editors in particular, are urging researchers to publish replication studies (e.g., Collins & Tabak, 2014). Given the importance of these issues, academics also believe it is possible to determine the precise number of papers that have been replicated (Bienefeld et al., 2020; Tuval-Mashiach, 2021; Köhler & Cortina, 2019). As a methodological contribution, in this research, we conduct an in-depth evaluation to ascertain the prevalence of replication studies in management science and propose the research questions stated below:

RQ6: *How prevalent are replication studies in the field of management?*

RQ7: *What types and forms of replication studies are conducted?*

RQ8: *What are the replication results?*

RQ9: *When it comes to citation, how does replication affect the scientific area?*

To undertake empirical research on the publication of replication studies, we provide a breakdown of 240 independent replication studies published in 56 top-tier journals and classified into eight subdisciplines of management and business from the list of ABS journals (2018). We define the variable orientation of replication studies and the categorization of replication studies into several groups. To summarize the quantitative association between variables, we employ negative binomial regression analysis.

1.3 Research objectives

Addressing the few dynamic foundations around social entrepreneurship is the main objective of the current thesis. Scholars have defined social entrepreneurship as an impactful social endeavor (Nguyen et al. 2015) and innovative persuasion (Rao-Nicholson et al. 2017). However, academic definitions of social entrepreneurship are constantly evolving, despite their wide initial descriptions (Hota et al. 2020; Sassmannshausen & Volkmann 2018; Nguyen et al., 2015; Rao-Nicholson et al., 2017). Hence, the second chapter of the thesis provides a review of published research on the definition of social entrepreneurship. Secondly, social entrepreneurship has a low-profit orientation but serves society (Cukier et al., 2011) such hybrid objectivity makes social entrepreneurial activities challenging. Macro-level determinants and supportive institutions are useful strategies for the occurrence of SE. Although once social entrepreneurial activity prevails with the support of macro-level determinants, it is also significant to investigate the consequential impact of social enterprise at the micro-level. The current thesis aims to highlight these phenomena by providing a brief overview of the literature and conducting an empirical investigation into the macro-level/micro-level drivers and their consequential impacts in chapters 3, 5, and 6.

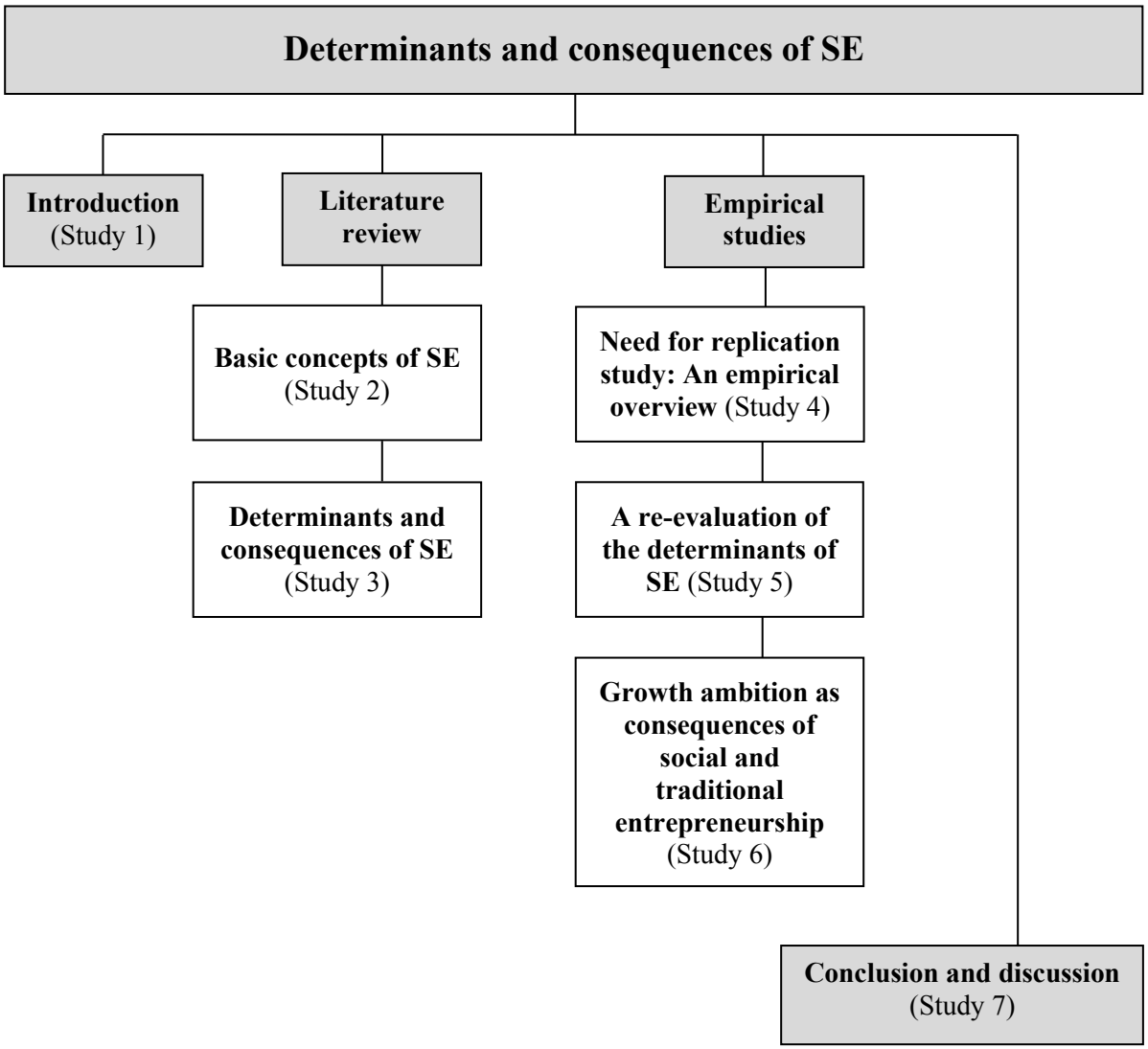
Furthermore, to conduct the empirical investigation on chapters 5 and 6, this thesis aims to apply the replication and extension as methodological contributions. In research, reproducibility is a conscious effort to validate previous publications (Hubbard et al., 1998, Aguinis, & Solarino, 2019). Lack of data, opaque technique, publishing reluctance, and a lack of interest from academics all contribute to the underfunding of replication of the body of current research (Baker, 2016, Hedges, & Schauer, 2019b). Numerous academics have emphasized the need to initiate the trend toward reproducibility and replicability so that data and facts in the field of business and management can have evidence of support from other researchers (Kerr et al. 2016; Camerer et al. 2016; Block, & Kuckertz, 2018). Chapter 4

provides an empirical overview of the prevalence of replication publications as part of an extended study.

1.4 Structure of the dissertation

In this dissertation, we investigate the issues with and the determinants of SE. This dissertation incorporates investigations based on empirical analysis and a theoretical overview. Since this field is still evolving, it is hard to determine how much is known about it practically is difficult. Therefore, Chapter 2 presents a brief synopsis of the background and definition of SE. Chapter 3 concentrates on the primary determinants of SE. This chapter is based on a literature review that focuses on the determinants of SE at both the micro and macro levels, as well as the scope and consequences of SE. In Chapters 4 and 5, we perform empirical studies. Chapter 4 addresses the question of whether a replication study is necessary. As a methodological contribution, in this chapter, we conduct an extensive empirical examination of the prevalence and effectiveness of replication studies that have been published in management research. Then, in Chapter 5, we empirically investigate the macro-level determinants that can have a multitude of impacts on SE through replication. Chapter 5 examines the influence of macro-level determinants on SE through literal and constructive replication. Thereafter, in Chapter 6, we use a novel approach to study how comparative micro-level consequences as growth ambition of social and commercial entrepreneurial activity to sustain. To this end, we use the empirical evidence supporting growth ambitions. The chapter also emphasizes the difference between commercial and social entrepreneurship in terms of their respective growth ambitions. The current study also assesses growth ambitions based on the economy of states in light of its development. Chapter 7 summarizes the key conclusions of all chapters with final remarks. In this concluding chapter, we highlight the theoretical and practical implications of the research findings and propose future directions for research. Figure 1.1 depicts the general layout of this dissertation.

Figure 1.1: Structure of the dissertation



Section 1:

Literature review

2 Basic concepts of SE

Abstract: *The proposed research and practical implications of SE have gained considerable academic attention. Scholars have attempted to support SE using various justifications and arguments. However, it is important to understand the basic concepts of SE first. To have a thorough understanding of the subject, this study discusses the background and definition of SE in the literature.*

2.1 Background and need for Social Entrepreneurship

Hoogendoorn et al. (2010), acknowledged that it is worthwhile to perform a scientific evaluation of the initial stages of SE research. The background of SE is as unique and old as humankind itself, and this concept is known by many different names (e.g., philanthropy, socialism, altruism, welfare, and humanitarianism). The debate over the legitimacy of SE has continued even though it now has a brief description and scholars largely understand it (Hota et al., 2020; Sassmannshausen & Volkmann, 2018). Many scholars have characterized SE as a historically successful social endeavor as well as innovative persuasion (Nguyen et al., 2015; Rao-Nicholson et al., 2017). The idealization among scholars is that the practice of SE somehow improves on revolutionary theory and practical fundamentals (Nicholls, 2006; Light, 2006; Peredo & McLean, 2006; Dees, 2001, 2007; Mair & Marti, 2006). To establish a baseline concept for SE, this thesis drew back to the literature review that was focused on the background and definition of SE.

Historically, social activities were typically related to philanthropic activities. Scholars defined philanthropy as the practice of engaging in charitable and non-profit activities. On the one hand, the worldview was restricted to charitable endeavors, and scholars questioned whether such efforts were sufficient to raise awareness about societal problems (O'Connor, 2007; Nandan et al., 2015). On the other hand, senior management, who typically supported and collaborated with well-implemented financial frameworks, was reluctant to implement their social mission in a profit-making system (Ostlund, 1977). Social issues – in particular poverty, an unequal income distribution, a lack of resources for ordinary people, a lack of jobs and opportunities, health inequities, and global warming – were a major concern for policymakers and scholars. Social changemakers were inspired to respond to these challenging circumstances to provide reformable solutions through social enterprises (Dees, Emerson, & Economy, 2002). Kidd (1996) described the ideology of philanthropy and social history,

particularly in Europe, as being linked to altruistic conduct. The core principles of SE have long inspired philanthropists, especially those who are currently referred to as entrepreneurial/business philanthropists (Marinetto, 1999).

However, the cooperative movement gave serious consideration to the idea of SE in Europe throughout the 18th century, which later gave rise to the social innovation and social enterprise movements of the 1980s and 1990s (Fowler, 2000). Berzin (2012) highlighted that the phrase "social entrepreneur" is typically credited to Bill Drayton, the founder of Ashoka. To reduce income disparity, Ashoka, a nonprofit organization founded in 1980, supports and develops businesses with a social mission (Ashoka Innovators, 2000; Bornstein, 2004). The growth of social entrepreneurs and the concept of social innovation is partly attributable to Ashoka. Drayton claims that social entrepreneurs could be a significant driver of change in achieving social goals (Drayton, 2006). The Schwab Foundation for SE, Echoing Green, and Ashoka are some examples of organizations that have adopted the changemaker position (Mair, 2011).

In the 1980s, researchers such as Edward Skloot proposed that companies may pursue revenue development while also pursuing social goals (Skloot, 1988). He founded New Ventures, a consultancy company that helps NGOs grow and sustain their ability to generate income from a variety of sources. New schools of thought have significantly influenced how the evolution and current conception of SE evolved and is currently conceived. The Grameen Bank, established by Muhammad Yunus, has also made a significant contribution to the development of SE (Yunus et al., 2010). Yunus was able to successfully raise awareness of the need for pro-poor financial services and products in the fight against poverty by launching the Grameen Bank in Bangladesh in the 1980s (Haugh, 2007). To invest philanthropic funds in long-term social companies and provide microcredit/microfinance to low-income entrepreneurs, Yunus and three of his colleagues established Yunus Social Business in 2011 as

a for-profit and nonprofit company (Yunus, Sibieude, & Lesueur, 2012). Since scholars have employed the concept of "social entrepreneurship" in various settings and due to regional disparities in economic development, experts are unsure of its exact origin (Cagarman et al., 2020a; Starnawska, 2016). Nevertheless, in regions where social activities were limited to charitable organizations and nonprofit businesses, the concept of social business was relatively novel.

Furthermore, in contrast to social enterprises in the US, social enterprises in Europe were seen to have evolved from business structures and were characterized by consistency, transparency, and compassion (Hoogendorn et al., 2010; Borzaga et al., 2020). On the one hand, since 2010, the founders of the majority of the country's social enterprises relied on financial support and assistance from either international organizations or regional governments (Alvord et al., 2004; Gigauri & Damenia 2020). Government aid organizations made significant financial investments and established supportive infrastructure to encourage SE as the optimal way to address difficult problems, thus providing social enterprises a rapid boost (Stecker, 2014; Bozhikin et al., 2019). On the other hand, scholars have assumed that corporations have long engaged in corporate social responsibility as a part of operations based on socially conscious endeavors (Moir, 2001; Cornelius et al., 2008; Palakshappa & Grant, 2017).

However, Friedman (1970) and Davis (1973) rejected the notion of corporate social responsibility as social engagement. According to them, corporations have additional reasons for strengthening their social responsibility, such as maintaining their reputation, having significant stakes at play, and evading governmental legislation rather than offering genuine social benefit at a low-profit margin. Scholars claim that broadening the definition of corporate social responsibility to include social goals other than maximizing shareholder returns would be detrimental to society (Baron, 2007; Saatci & Urper, 2013). In addition, scholars assert that

enterprises should place the interests of society above all else (Samuelson, 1956). The substantial challenges and the concern that corporate social responsibility cannot provide an effective solution generated opportunities for changemakers, which governing authorities initially sponsored (Zahra et al., 2008; Frynas, 2010; Grimes et al., 2013). Over time, social entrepreneurs started to evolve successfully from project structures to enterprise structures with the support of shared goals, leadership skills, and the learning experience of the workforce (Asarkaya et al., 2019). However, in terms of regulatory recognition, SE is still in its infancy, and the phrase itself lacks a concise description.

The primary purpose of SE is to address social, economic, and global issues while facilitating a competitive and innovative environment for stakeholders (Peredo & Mclean, 2006; Agafonow, 2015). Scholars generally agree that social entrepreneurs must have a social mission, an innovative product, and a monetary motive (Lepoutre et al., 2013). Conventional business expertise suggests that for social businesses to succeed, innovation must be developed and deployed (Lubberink et al., 2019). Scholars have argued that over time, SE has grown to have a strong uniqueness (Huda et al., 2019; Hulgård, 2010; Weber et al., 2013). There are countless examples of social entrepreneurs who are bringing about social transformation in addition to altering the economy. For instance, to address a serious global environmental issue, Adidas aims to contribute to a plastic-free ocean by making shoes from rubbish retrieved from the ocean (Murfree & Police, 2022). Similar to this, LUSH has made the socially responsible choice to sell items without packaging. Moreover, Mi Terro uses biotechnology to replace plastic with fiber derived from leftover milk, and Hope Sew provides ecologically friendly textile products manufactured from artisanal fabrics (Cause Artist, 2021). Additionally, Rosie Oglesby founded Paige & Bloom, a sustainable social enterprise, to provide paid employment and career development opportunities to women who have suffered domestic abuse (Oglesby, 2019). The company handcrafts paper flowers using recyclable materials, and the company is

successful. Rose cultivation uses 5 liters of water and emits 2.9 kg of CO_2; Paige & Bloom is thus saving the planet while creating several jobs for underprivileged women. However, the company also has significant affiliations with funding associations such as the European Social Fund and the Education and Skills Funding Agency. The example of Paige & Bloom indicates that SEs can provide sustainability, create several jobs, and establish successful growth with the support of governing bodies. Moreover, following the OECD Sustainable Development Goals and the European Commission's strategic plan, 35 European nations have established explicit state policies and regulations to assist social entrepreneurs as well as the social ecosystem (Borzaga et al., 2020). Moreover, the effect metric of SE has, according to the Global Entrepreneurship Monitor report (2015), reached 3.2% within large-scale economies with a relatively narrow gender gap (55% male and 45% female), which is unusual in commercial-level company operations (Bosma et al., 2016). According to scholars, social phenomena are interconnected with other indicators, and the economic value created by a social enterprise cannot be detached from the positive effects on society (Schramm, 2010; Urbano et al., 2010; Bacq & Alt, 2018; Zahra et al., 2014a; McQuilten, 2017).

Furthermore, since the initial implementation of SE in many regions, research and education in this area have advanced (Brock & Steiner, 2009). Greg Dees, the "father of social entrepreneurship education," argued that people must have a distinguishable set of skills to engage in social activities because dynamics are changing, and social changemakers must operate in a competitive business environment. Social entrepreneurial passion can only be accomplished through systematically intensive social entrepreneurial education (Worsham, 2012). Muhammad Yunus also argued that social entrepreneurial education is necessary to create the skills required to carry out social enterprises to be effective (Kickul et al., 2012). Many well-known universities, such as Harvard, Stanford, Berkley, and Columbia Universities, officially began social entrepreneurial education under the guidance of

professional opinion, and as time went on the University of Geneva and the Schwab Foundation in Europe quickly followed this practice. As a result, SE attracted the attention of scholars and practitioners as a promising emerging field of study, and there has been an increase in publications on the topic (Kannampuzha & Hockerts, 2019). However, the majority of articles on SE were initially featured in nonprofit journals, despite earlier research and policymakers having recognized it as an important field of study (Short, Moss, & Lumpkin, 2009). Later, regarding special editions of journals, there has also been an upsurge in edited volumes and monographic books, such as the *International Journal of Entrepreneurial Behavior & Research* (2008) and *Entrepreneurship Theory and Practice* (2010).

2.2 Definition of Social Entrepreneurship

Most scholars and politicians agree that SE has improved social ideals through unwavering practices (Rawhouser et al., 2019; Bansal, Garg, & Sharma, 2019). Given the significance of the emerging field, it is important to understand it comprehensively. Scholars have disputed the concrete definition of SE, the reason behind it is the existence of many definitions of SE and the contradiction between scholars regarding the agreement on one definition. Despite these differences, however, it is difficult to ignore the importance of SE as an emerging field of study (Gawell, 2013; Certo & Miller, 2008). Through arguments about a conclusive model of SE, researchers have attempted to define a certain structural concept (Choi & Majumdar, 2014; Bacq & Janssen, 2011, Wu, Wu, & Sharpe, 2020). At first glance, SE appears to be a field that focuses exclusively on actions with the greatest potential to benefit society (Leadbeater, 1997; Wallace, 1999). Bornstein (1998) referred to social entrepreneurs as visionary individuals who favor making a change with little chance of personal benefit. Other early research contributions stated that SE is defined as a social-impact-related organizational and commercial activity (Banks, 1972; Emerson & Twersky, 1996). Following

Martin and Osberg's (2007) definition, a social entrepreneur is a person who is inspired to alter negative equilibriums through unique solutions and acts creatively.

According to some scholars, social entrepreneurs must also exhibit the dynamic attributes of conventional entrepreneurs (Pache & Chowdhury, 2012; Kraus et al., 2017). Describing the attributes of entrepreneurs, Shane and Venkataraman (2000) stated that to create and supply new products, entrepreneurs locate, assess, and seize opportunities in emerging markets. To identify typical entrepreneurs, Gartner (1988) used economic and financial growth together with flexible features to highlight the characteristics of entrepreneurs and non-entrepreneurs. A versatile set of traits for entrepreneurs broadened the horizons and afforded people a better understanding of how to participate in other types of business. However, the major goal of social enterprises was to benefit society while retaining a low-profit orientation (Cukier et al., 2011). A social enterprise can thus be characterized as a hybrid organization that combines entrepreneurial attributes with a desire to provide social value (Doherty et al., 2014; Rahim & Mohtar, 2015). Even with entrepreneurial qualities, social enterprises set themselves apart from conventional commercial practices; for example, SE adheres to social innovation schools of thought, which prioritize societal implications such as poverty eradication, economic progress, and equal money distribution, education, and health care provisions, and solution to environmental issues (Ebrahim et al., 2014; Al Taji & Bengo, 2019; de Mon et al., 2022). Moreover, the classification as a hybrid organization distinguishes SE from nonprofits and charities, as social enterprises address social issues while pursuing financial gain (Battilana & Lee, 2014; Wry & York, 2017; Grilo & Moreira, 2022; García-Jurado et al., 2021).

The definition of SE is regarded as ambiguous because social ventures have unique and multifaceted attributes. Researchers define "social entrepreneurship" uninterruptedly as the knowledge of scholars regarding the area of SE evolved. Researchers have used a variety of expressions to describe the term. According to definitions in existing literature, social

enterprises are nonprofit organizations that evaluate social responsiveness, environmental stewardship, management skills, and the ability to create social policies (Wood, 1991; Dees, 2001; Mair & Marti, 2006; Hoogendorn et al., 2010). Other scholars, however, have offered convincing evidence that the core manifold of SE is creativity, proactivity, risk management, sustainability, societal mission, and opportunity recognition (Weerawardena & Mort, 2006; Short et al., 2009; Hill et al., 2010). Furthermore, Choi and Majumdar (2014) illustrated seven advanced aspects of SE: evaluation of a social mission, central intricacy, variously defined competencies, directness, aggressive and self-justifying actions, different paradigms, and liberal competition. According to further argumentation, SE is a multistage field of research that comprises individual, associational, and institutional projections of social ideals and inventions geared toward promoting well-being (Granados et al., 2011; Rey-Martí et al., 2016; Saebi, Foss, & Linder, 2019; Giorbelidze, 2021).

Researchers have also asserted that SE is a high-risk activity since little attention is paid to commercial advantages, resource provision, and qualities that could produce profits (Brinckerhoff, 2000; Kraus et al., 2014; Tan & Yoo, 2015). Scholars developed theoretical institutions and theories to place more emphasis on social goals in social enterprises than on financial goals (Halberstadt et al., 2021; Bornstein, 2004). Due to the primary emphasis of scholars on welfare-oriented activities, a social initiative cannot reach significant financial goals. In this instance, the altruistic and empathic grounding of entrepreneurial conduct serves as the foundation for SE (Miller, Wesley, & Williams, 2012). Therefore, it is preferable to describe social entrepreneurial activities concerning social entrepreneurs' behavioral patterns, which include self-efficacy, empathy, and the pursuit of social justice (Mair & Noboa, 2006; Bacq & Alt, 2018; Tucker et al., 2019). According to Mort et al. (2003), scholars can characterize SE as a multidimensional concept where social entrepreneurs are eager to take on any risk and are inspired by virtue to believe in a social mission. The ethical foundation is

central to the definition of SE, yet ethical complexity presents several challenges for the enterprise. In a recently released study, the author has outlined recognition, repositioning, and collaboration as new behaviors and conduct of actions to address ethical complexity (Bhatt, 2022).

Furthermore, Tan, Williams, and Tan (2005) provide a three-part definition of SE. First, they state that the term "social" refers to social and philanthropic missions that are initiated with little emphasis on profit-making. Second, they discuss the idea that novelty is a key component of organized business. Third, they demonstrate the adaptability of social change in technology and methodology. While scholars emphasize the importance of social missions in SE, they also argue that current social enterprises should have more advanced features (Schatzki, 2001; Dey & Steyaert, 2012; Bruder, 2021). In this context, research has fostered the term "social innovation," which facilitates the advanced features of typical social activities (Maclean, Harvey, & Gordon, 2013; Phillips et al., 2015; Crupi, Liu, & Liu, 2022). According to Lisetchi and Brancu (2014), SE is social innovation through the following: a continuous change in the governance of procedure, the application of scarce resources, the provision of distinctive solutions to social needs, or diversification in the use of resources. Dorado (2006) claims that scholars can consider SE as a combination of innovation and sustainability based on a social mission. Although innovation is a complicated process in itself, it creates opportunities for people and shifts power through rearrangement. However, the term "social innovation" is used to describe all concepts, projects, firms, services, and initiatives that seek to address social problems and advance values (Guerrero et al., 2020).

Scholars have attempted to offer a precise definition of SE based on crucial precedents and following geographical variability (Christie & Honig, 2006; Bacq & Janssen, 2011; Pless, 2012; Hossain et al., 2017; Collavo, 2018; Gupta et al., 2020). By contrast, Morris et al. (2021) claim that too many controversies and opposing viewpoints exist regarding the development of

SE and that the meaning of the term cannot be reduced to a few generalizations. Moreover, it makes more sense to assess innovation in terms of social and environmental concerns rather than only in terms of economic profit (Melay & Kraus, 2012; Hörisch et al., 2017). Prior research suggests that innovative concepts are necessary for social firms to acquire funding and have an impact (Murray, Caulier-Grice, & Mulgan, 2010; Lisetchi & Brancu, 2014; Lubberink et al. 2019; Cagarman et al., 2020a). According to Alcaide Lozano et al. (2019), a social enterprise is based on a social mission with the extension of innovative features; it causes a social effect and fosters collaboration for sustainability.

Dato-on and Kalakay (2016) assert that the basic concept of SE does not require further refinement or a better description. Further, they state in their research study that the primary construct of SE does not illustrate more improvement and also does not need a better definition, as previous authors have covered almost all the dimensions regarding the definition of social entrepreneurship. They conduct content analysis in their study that SE implements three elements of business that are based on empathy, accountability, and clearance of the activity. They also advocate through a systematic literature review with a final sample of 58 research studies explaining the Gartner (1985) definition of SE. Their findings support the view that, until now, authors have not explored all the dimensions of SE. In conclusion, scholars believe that the field of SE is explored and authentically portrayed, but it is still evolving, and social enterprises may hence need to adjust to the requirements of new perspectives (Klarin & Suseno, 2022). Table 2.1 demonstrates the definitions of SE.

Table 2.1: Systematic literature review of studies on the definition of Social Entrepreneurship

Study	Definition of Social Entrepreneurship	Analytical tool
Wood (1991)	Social enterprises are volunteer endeavors of social responsibility, social responsiveness, environmental assessment, management issues, and social policy creation without profit-earning aims.	Critical review
Dees (2001)	Not-for-profit ventures aim to achieve socially sustainable missions with low resources to bring about social value and change.	Conceptualization
Mair & Marti (2006)	Social enterprises combine social factors and entrepreneurial activities to achieve socioeconomic value.	Conceptualization
Peredo & McLean (2006)	SE is an embedded concept of the creation of social value, opportunity, innovation, risk tolerance, and resource provision.	Critical review
Short et al. (2009)	SE arises due to sensitive leadership toward social and economic problems and a resource-based view.	Systematic review
Desa (2010)	SE tries to combine resources and recognize opportunity with the purpose of social welfare and to subdue the commercial incentive.	Critical review
Hill et al. (2010)	SE emphasizes the progression of prosperity formation through opportunity recognition and exploitation, the gathering of reserves, and legislative formation.	Systematic review
Hoogendorn et al. (2010)	The ideology of SE is typically based on the welfare of people and on solving challenges in society.	Systematic review
Bacq & Janssen (2011)	SE is based on social value creation, a social mission, a social market orientation, and social innovative solutions.	Systematic review
Granados et al. (2011)	Social enterprises and SE are both oriented toward fulfilling societal objectives.	Systematic review
Santos (2012)	SE is based on positive social externalities, support for powerless localities, sustainable solutions, and the logic of social control.	Conceptualization

Table 2.1: (continued)

Lehner & Kansikas (2012)	Social entrepreneurial activity starts when an individual has personal social awareness, has the motivation to provide a solution, and recognizes a social opportunity.	Systematic review
Kraus et al. (2014)	SE is a risk-taking activity to address social and economic concerns with low-profit gain.	Systematic review
Choi & Majumdar (2014)	The conceptualization of SE is clustered and grouped phenomena of social value identification.	Conceptualization
Dato-on & Kalakay (2016)	SE consists of the specific word "social," which indicates a new type of business activity with profit and nonprofit aims.	Systematic review
Rey-Marti et al. (2016)	SE activity combines added social value and the desire for transformation with job and wealth creation.	Systematic review
Sassmannshausen & Volkmann (2018)	SE is subsidized to an amplified social agility that permits the association of the low and labor class to accomplish fairly well-paid income.	Systematic review
Macke et al. (2018)	SE is an activity developed and created by individuals with a societal assignment and the skills to combine practices and acquaintances with the support of corporations to encourage sustainable social transformation.	Systematic review
Saebi et al. (2019)	SE is based on the features of a prosocial personality, a social network based on an organizational setting, and formal/informal social institutional change.	Systematic review
Rawhouser et al. (2019)	SE is defined by the social impact of the problem-solving procedure.	Content analysis
Persaud & Bayon (2019)	Social entrepreneurial activity can be individual and organizational to create social value and social change and to ensure social development.	Mining analysis
Gupta et al. (2020)	SE is based on ethical responsibility, the configuration of social capital, the creation of a social strategy, the positioning of social innovation, and social human capital.	Systematic review
Laurett et al. (2020)	The primary objectives of a nonprofit organization are to bring social diversity and provide welfare to address social and economic issues.	Systematic review

3 Determinants and consequences of SE

Abstract: *The current research aims to discuss the determinants of SE at several levels. Prior literature has categorized SE-related determinants at the macro- and micro-levels. In this chapter, we discuss prior literature based on these determinants and their influence on social entrepreneurial activities. Moreover, we elaborate on the earlier literature to show how practitioners can scale SE to generate micro- and macro-level consequences.*

3.1 Determinants of Social Entrepreneurship

SE, a cutting-edge academic discipline, can address and transform a wide range of societal and environmental issues (Bornstein, 2004; Mair & Marti, 2006; Certo & Miller, 2008; Hynes, 2009; Santos, 2012; Stevens et al., 2015; Betts et al., 2018). An organization like SEs is likely to have the support of a socially vulnerable population because it is strongly dependent on limited resources and is constantly seeking market opportunities (Austin, Stevenson, & Wei-Skillern, 2006). Several individuals and elements involved in the social value creation process contribute to the development of social entrepreneurial activity. A wide range of influential determinants is required to accomplish social activity. Thus, this thesis reviews research on the determinants of SE at both the micro and macro levels.

3.1.1 Micro-level determinants

Most individuals find it difficult to establish and develop a social enterprise due to high risk and a lack of supportive measures (Ebrahim et al., 2014; Davies et al., 2019; Chipeta et al., 2022). A group of people who care about society and the economy might devise a plan and offer a solution by introducing an eco-friendly product (Akhundov). Entrepreneurs do, indeed, have significant drive, enthusiasm, ambition, and persistence (Cacciotti & Hayton, 2015). However, socially supporting pillars with a sociocultural and motivational impact are important to channel that drive (Hockerts, 2017). Based on this reasoning, researchers have identified several micro-level determinants that have a direct impact on an individual's behavior and practicality (Kachlami, 2014; Weerakoon, 2021). Micro-level determinants primarily include characteristics related to the interpersonal transformation of social entrepreneurs. According to Sud et al. (2009) and Stephan et al. (2015), numerous enabling factors facilitate the characteristics of the social

entrepreneurial culture in an economy. In light of this, scholars assume the micro-level is a crucial factor for sustainability and the development of social value.

Academics claim that rather than the demographic characteristics of individuals, their intention-specific characteristics are often what determine SE (Ambad, 2022). Empathy, moral evaluation of social values, self-efficacy, volunteering, concern for economic and environmental challenges, prior experience, and education are all determinants that influence entrepreneurial ambitions and predict whether or not a person will engage in SE (Forster & Grichnik, 2013; Hockerts, 2017; Urban, 2020; de Sousa-Filho et al., 2020; Graham & Bonner, 2022). A less materialistic mindset, ecological awareness, strong ethical standards, and a sense of accountability for finding solutions can also inspire people to engage in charitable activities (Inglehart, 1997; Uhlaner & Thurik, 2010; Jiao, 2011; Stephan, Uhlaner, & Stride, 2015; Hechavarría et al., 2017). Scholars attempted to highlight the notion that the personality of a social entrepreneur's personality serves as the fundamental assistance of innovative social entrepreneurship (Sharir & Lerner, 2006; Wood, 2012; Stephan & Drencheva, 2017). According to earlier studies, characteristics typically include proactivity, career-focused behavior, a value for altruism, and self-direction to pursue social entrepreneurial activity (Stephan & Drencheva, 2017; Kruse et al., 2021). Table 3.1 summarizes the literature on micro-level determinants.

Social entrepreneurs are driven primarily by a social objective, which is more than just a desire for financial gain. The availability of opportunity is a determinant for social entrepreneurs to achieve that objective (Short, Moss, & Lumpkin, 2009; González et al., 2017). Social entrepreneurs are motivated by the chance to realize their ideas through deliberate risk-taking, diligent work, and personal investment (Martin & Osberg, 2007; Corner & Ho, 2010). In addition, Schmitz and Scheuerle (2012) noted that opportunities impact the social advantages that are difficult to obtain.

Table 3.1: Micro-level determinants of Social Entrepreneurship.

Study	Conceptualization	Theory foundation	Unit of analysis
Sharir & Lerner (2006)	Individual commitment, team integration, employee commitment, and idea acceptability are essential determinants of SE.	-	Case study approach
Wood (2012)	Personality traits such as openness, conscientiousness, extroversion, agreeableness, neuroticism, and empathy are key to generating innovative SE.	Neurological theory	Online questionnaire from 352 students
Hockerts (2017)	Empathy, moral obligation, self-efficacy, perceived social support, and prior experience support social activities.	Entrepreneurial intention theory	Primary survey data from 1,444 students
González et al. (2017)	A key tenet supporting social entrepreneurial activity is the identification, discovery, and creation of opportunities.	Opportunity theory	Interview Approach
Kachlami et al. (2018)	Individual-level determinants (e.g., age, gender, and employment status) and environmental-level factors (e.g., networking, wealth, government expenditure, unemployment, and cultural value) impact SE.	Demand and supply theory	Sweden enterprise data
De Souza João-Roland & Granados (2020)	Personal experience, a desire for social impact, and the motivation to create change are the main drivers of social innovativeness to bring social value.	Development theory	Interview Approach
Kruse et al. (2021)	An individual's behavior is influenced by factors such as human capital, cognition, personal traits, and inclination to adopt social enterprises.	Institutional theory	Meta-analysis
Ambad (2022)	Social entrepreneurial intention-based determinants significantly affect the preferences of individuals for SE.	Theory of planned behavior	Systematic review approach
Graham & Bonner (2022)	Social entrepreneurial activities are hampered by people's cognitive abilities, such as self-efficacy, networking ability, fear of failure, and opportunity perception.	Social cognitive theory	Global Entrepreneurship Monitor, 2015-2018

Zahra et al. (2008) found that if people with post-materialistic and altruistic tendencies are allowed to interact in social contexts, social entrepreneurial activities may become more prevalent at the micro level (Zahra et al., 2008). Furthermore, being able to recognize opportunities, being socially responsible, and having strong communication and creative skills are all human attributes and social entrepreneurial competencies that lead one to prefer social activities (Palacios-Marqués et al., 2019). In summary, individual characteristics including knowledge, awareness, experience, an altruistic mindset, a desire to create several jobs opportunity recognition, and a passion to achieve an innovation-driven mission are the main micro-level determinants that underpin social actions (Yitshaki & Kropp, 2016; Ghalwash et al., 2017; Kruse et al., 2021).

3.1.2 Macro-level determinants

Due to the lack of opportunities, insufficient resources, severe patent laws, complex company regulations, the high costs of technological research, high taxes, political intrusion, and opposition from for-profit businesses, social entrepreneurs are under tremendous pressure to fulfill their duties (Renko, 2013; Huybrechts & Nicholls, 2012; Goyal et al., 2016; Scuotto et al., 2022). Researchers have provided evidence that institutional support serves as a significant influence both formally and informally (Sud et al., 2009; Matsunaga et al., 2010; Urbano et al., 2017). Hoogendoorn (2016) argues in favor of the macro-level determinants of SE, suggesting that these factors must be advanced in society, as they have the potential to be influential.

Experts have stressed the difficulty of raising money for social initiatives; hence, people who are compassionate and empathic find it simpler to turn to the government for assistance (Shockley & Frank, 2011; Bozhikin et al., 2019). Government-sponsored funding, loan programs, and other forms of financial assistance promote and add value to SE (Battilana & Lee, 2014; Estrin, Mickiewicz, & Stephan, 2016). As a result, governing authorities must make catalyst investments

in individuals and companies offering reliable and creative means of attaining societal goals (Gigauri & Damenia 2020). Contextual determinants, including financial capital, human capital, social capital, political systems, and business information systems, have a significant impact on SE activities (Ferri & Urbano, 2011; Griffiths et al., 2013; Cooney et al., 2016; Sahasranamam & Nandakumar, 2020; Sahasranamam et al., 2021). In addition, compelling governmental incentives, such as lenient laws, tax reductions, an approachable investment system, gross domestic products, and less complex regulations, might persuade a society to involve social businesses (Townsend & Hart, 2008; Pathak & Muralidharan, 2016; Cagarman et al., 2020a; Leković., 2021). Conversely, a lack of such incentives has conflicting effects such as increased adaptability of social entrepreneurial activities (Sullivan et al., 2003; Meyskens et al., 2010b; Aidis et al., 2012; Estrin et al., 2013b; Deng, Liang, & Fan, 2019).

Each empirical study has provided a thorough analysis of institutional incentives for SE projects. According to Stephan et al. (2015), the implementation of institutional theory is a confirming visualization for the constant SE promotion (Scott, 1987; Mair & Marti, 2006). New products and technologies created by social entrepreneurs tend to support social values and environmental concerns. Furthermore, network theory, shared values, advertising of a social mission, collective cultural norms, and environmental legitimacy have a significant impact on the normalization of social entrepreneurial activities across society (Koe Hwee Nga & Shamuganathan, 2010; Montgomery et al., 2012; Cater et al., 2017; Hörisch, Kollat, & Brieger, 2017). The roles performed by various individuals and causes also considerably affect the quality, tenacity, and sustainability of the growth of social innovation (Tjornbo & Westley, 2012; Phillips et al., 2015; Martínez-Torres, 2014). Finally, educational attainment is a crucial

Table 3.2: Macro-level determinants of Social Entrepreneurship

Study	Conceptualization	Theory foundation	Unit of analysis
Matsunaga et al. (2010)	Heterogeneity, government expenditure, and governmental financial support impact SE.	Government failure theory	Britannica World Data, 1994
Ferri & Urbano (2011)	Public spending, access to finance and governance effectiveness, social needs, societal attitudes, and education affect SE.	Institutional economic theory	Global Entrepreneurship Monitor, 2009
Nissan et al. (2012)	Public expenditure, social capital, trust, and economic development influence social entrepreneurial activity.	Welfare state theory, supply-side theory.	World Values Survey.
Griffiths et al. (2013)	Sociopolitical, cultural, and religious institutions and economic influences stimulate social entrepreneurial activity.	Institutional economic theory	Global Entrepreneurship Monitor, 2009
Maclean et al. (2013)	The engagement of local communities and communal concern regarding social entrepreneurial intentions determine social innovation.	Integration theory	Case study approach
Hoogendoorn (2016)	Government spending, income, regulation of the country, and a value for self-expression impact SE.	Interdependence theory, welfare state theory.	Global Entrepreneurship Monitor, 2009
Chan et al. (2019)	Government policy provides an innovative social entrepreneurial environment and a solution to entrepreneurial challenges and social practices.	-	Data collected from reports
Agarwal et al. (2020)	A combination of social, cultural, and environmental factors has an impact on entrepreneurial learning and competencies of women-led social entrepreneurs.	-	Case study approach
Sahasranamam & Nandakumar (2020)	Financial capital, human capital, social capital, philanthropy-oriented systems, educational systems, and political systems influence social entrepreneurial activity.	Capital theory, institutional theory	Global Entrepreneurship Monitor, 2009
Canestrino et al. (2020)	Power distance, uncertainty avoidance, in-group collectivism, institutional collectivism, gender egalitarianism, performance orientation, human orientation, and assertiveness impact SE.	Institutional theory, resource dependence theory	Global Entrepreneurship Monitor, 2015
Lee et al. (2022)	The revenue-making strategy of social entrepreneurship highly depends on the maximization of social value nationally.	Institutional theory	Global Entrepreneurship Monitor, 2009

factor that collectively influences students to pursue SE (Halberstadt et al., 2019; Seyoum et al., 2021). Table 3.2 shows macro-level determinants literature.

3.2 Consequences of Social Entrepreneurship

In general, SE prioritizes the addressing of issues concerning, among others, global warming, waste management, health care, and the provision of basic human necessities. Researchers are currently seeking to determine how enhanced SE benefits the community (Ranville & Barros, 2021). Few studies have attempted to explain how SE is scaled or how to measure its impact (Jiao, 2011; Hota et al., 2020). To paint a realistic picture of the impact of SE and to elaborate on its consequences at the micro and macro levels, the current literature review provides insights from prior studies.

3.2.1 Micro-level consequences

A social enterprise framework serves as a source of and platform for actions that lead to socially sustainable development (El Ebrashi, 2013). SE not only identifies innovative approaches and cutting-edge trends that persuade others to follow similar behaviors but also offers numerous solutions to societal problems (Saebi et al., 2019; Rawhouser et al., 2019; Sahasranamam & Nandakumar, 2020). Since SE projects typically affect a single entity or small group, their micro-level impact might be presumed to occur at the individual level (Bloom, & Smith, 2010; Cukier et al., 2011; Dufays & Huybrechts, 2014; Muñoz & Kimmitt, 2019). According to earlier studies, social entrepreneurs play significant roles in influencing societal behavior at the individual level (Seelos & Mair, 2004; Thompson & Doherty, 2006). Scholars assert that SE leads to heterogeneity in individual tactics, sustainable influence, awareness of social business, and reduced self-centered profit-based activities (Shane, 2003; Sharir & Lerner, 2006; Ormiston & Seymour, 2011; Smith et

al., 2016). SE involves a group effort, real-world opportunity, and support for institutionalization (Dees, 2001; Dorado, 2006; Robinson, 2006). In addition, the effectiveness of social activities is the only factor that determines whether SE has an impact on society (oga Leviner et al., 2006; Islam, 2020).

Furthermore, social entrepreneurs employed socially progressive business practices to make a significant impact based on an entrepreneur's character and abilities, education, career path, ecological factors, and availability of required human and financial capital (Thompson, Alvy, & Lees, 2000; Dees et al., 2004; Seelos & Mair, 2005; Bacq et al., 2015; Scuotto et al., 2022). By creating numerous employment opportunities and individual revenue streams, SE increases the total monetary growth of social enterprise (Rey-Martí et al., 2016; Prasetyo & Kistanti, 2020). Another effect of the growing trend in SE is women's empowerment through a focus on small social firms. For instance, a study conducted in Bangladesh found that women started to engage in social entrepreneurial activities when they were more active in various revenue-generating events, which led to an increase in regular household involvement, external agility, media exposure, and participation in radical events (Chandraa & Khanb, 2020). Such efforts not only advance the economy but also establish equilibrium for income creation in extremely underdeveloped areas, making them one of the main solutions that SE offers. Therefore, social entrepreneurial activities have a micro-level effect on the behavior of individuals, where peers influence individuals to make altruistic, proactive, and progressive choices. Table 3.3 elaborates on the literature on micro-level consequences of SE.

There is evidence that academic interest in SE is growing, as indicated by the substantial increase in the number and variety of courses and conferences devoted to the topic. In particular, there have been numerous professional publications in the field recently. The next generation of

Table 3.3: Micro-level consequences of Social Entrepreneurship

Study	Conceptualization	Theory foundation	Unit of analysis
Seelos & Mair (2005)	On a specific individual level, socially responsible behaviors lead to the accomplishment of all the essential strategic factors of sustainable development objectives.	-	Conceptual and case study approach
Bloom & Smith, (2010)	Scaling up SE results in high-caliber social impact, a quality workforce, strong mission communication, balanced earnings, and market force modeling.	Organization theory	Survey questionnaire from 1008 respondents
Ormiston & Seymour (2011)	SE measures social impact by consolidating the value creation and the social mission with traditional management approaches.	-	Case study approach
Bacq et al. (2015)	The actions of social entrepreneurs have a significant effect on scaling social impact through innovation and creativity.	-	Online survey of 123 social enterprises
Islam (2020)	A social enterprise's ecosystem growth strategy is a significant pillar to scale the social impact based on advocacy campaigns and support.	-	Conceptual approach
Prasetyo & Kistanti (2020)	SE generates opportunities, which also spur economic growth and long-term competitiveness.	Economic development theory	Sample of 125 entrepreneurs from a database
Siemieniako et al. (2021	More prominent organizational social impact can be produced by micro-level elements such as the development of entrepreneurship, labor practices, and vulnerability creation.	Multiple theories	Systematic literature procedures
Desiana et al. (2022)	Sustainability can be achieved through social entrepreneurial internal factors, ecosystems, and dynamic capabilities.	Ecosystem theory	A survey of 189 social enterprises in Indonesia
François & Goi (2023)	Sustainability with active stakeholders in the ecosystem of the scaling social impact is the result of social entrepreneurship.	stakeholder theory, boundary spanner theory	Case study approach

business leaders are enrolling in social entrepreneurship courses being offered by top business schools. Furthermore, researchers and students are collaborating to produce practitioner manuals that will help social entrepreneurs improve their businesses (Durieux & Stebbins, 2010). Although the topic is significant, it is still relatively new and needs time to mature and acquire a solid theoretical foundation.

3.2.2 Macro-level consequences

SE has a significant impact at the macro level through innovation and reformed methods (Zeyen et al., 2013). Scholars emphasize the scaling of the impact of SE to assess its effectiveness and social benefit (Baraibar-Diez et al., 2020; Islam, 2022). In a broader sense, SE has revolutionized the way people consume resources and perceive the environment. According to Bansal, Garg, and Sharma (2019), SE has diversified sustainability and environmental benefits. Social entrepreneurial efforts result in thoughtful resource mobilization and preservation, practical income equality, and the growth of ecologically sustainable technology (Weerawardena & Mort, 2006; Nicholls, 2006; Meek et al., 2010; Bacq & Eddleston, 2018). Social entrepreneurs achieve benefits by taking advantage of opportunities, generating original ideas, taking prudent risks, and applying growth advancements in practice. SE attains dual objectivity, such as the implementation of a financial social enterprise utilizing established worldwide business models with a social added value into new directions (Zahra et al., 2014b; Beckmann, Zeyen & Krzeminska, 2014; Alexandre-Leclair; 2017; Palacios-Marqués et al., 2019). In terms of career orientation, social enterprises have provoked new directions and collectively encouraged society to embrace a shared value orientation.

Entrepreneurship accelerates economic progress, particularly in developing countries (Zahra & Wright, 2016). However, cultural influences can account for disparities in SE between

nations (Rosca et al., 2020; Canestrino et al., 2020). For instance, SE can have a significant impact on economies such as India and Pakistan because of the need for employment, economic development, access to healthcare, and other solutions to difficulties. However, social impact is low in these economies due to a lack of governmental support (Kazmi et al., 2016; Singh, 2012). Conversely, an evaluation of SE in Bangladesh based on characteristics, resource efficiency, and climatic benefits revealed a significant social impact (Mahfuz Ashraf et al., 2019). Furthermore, Nega and Schneider (2014) pointed out that the introduction of microfinance in Africa through SE has a profoundly strong outcome of providing finance to individuals. Developing nations typically thrive on having a socially significant society that can offer solutions to a wide range of issues. However, developed nations also consider SE as a key pillar for economic expansion and a better environment (Jiao, 2011). Defourny and Nyssens (2010a) found that economies such as those in Europe and the US have grasped the potential of SE to scale up job creation, market expansion, and societal diversity.

Entrepreneurs are said to benefit the community financially through innovation and risk-taking (Tan et al., 2005; Bibu et al., 2011). If effectively adopted and then implemented over an extended period, the idea of social inventiveness generates wealth (Monroe-White & Zook, 2018; Nicholls & Teasdale, 2017). Moreover, innovative SE makes it possible to deliver high-tech products that are environmentally friendly and inexpensive for consumers (Lisetchi & Brancu, 2014; Farinha et al., 2020). In subsequent sections, micro and macro-level detriments/consequences are examined, and how these determinants impact the overall social entrepreneurial activities. To do so, a replication study and comparative study are conducted which is based on the effect of macro-level determinants/consequences on social entrepreneurship. Table 3.4 explains studies based on macro-level consequences of SE.

Table 3.4: Macro-level consequences of Social Entrepreneurship

Study	Conceptualization	Theory foundation	Unit of analysis
Defourny & Nyssens (2010a)	The US and European economies, in particular, have realized how much SE can do to increase market expansion, job creation, and societal diversity.	-	Conceptual approach
Meek et al. (2010)	Socially unified institutions and social government initiatives support environmental settings.	Institutional theory	Longitudinal analysis of 45 states
Jiao, H. (2011)	SE results in improved social ability and environmental concern through the feasibility and desirability of social entrepreneurs.	Entrepreneurship theory	Conceptual approach
Lisetchi & Brancu (2014)	SE incorporates the social mission into innovative development and sustainable activities.	Entrepreneurship theory	Conceptual approach
Nega & Schneider (2014)	SE generates a micro-financial impact on developing nations without democratic reforms.	-	Data collected from a report
Alexandre-Leclair (2017)	SE develops innovation with the support of identification and selection of the procedure in an evident and market segregation manner.	Commitment theory	Face-to-face interview with entrepreneurship
Monroe-White & Zook (2018)	Social entrepreneurship, with its innovative capability, governance, and supporting pillars, can attract high levels of social innovation.	Institutional theory	Global Entrepreneurship Monitor, 2009
Bansal, Garg, & Sharma (2019)	SE significantly contributes to the resolution of economic issues and the generation of social value, employment opportunities, and money.	-	A systematic review of 173 studies
Baraibar-Diez et al. (2020)	SE has a significant impact on public administration, education, the environment, financial investment, psychology, and public health.	-	Bibliometric analysis
Farinha et al. (2020)	The social enterprise's innovation is supported by its governance, inventive capabilities, and other supporting determinants.	-	Global Entrepreneurship Monitor, 2009
Rosca et al. (2020)	As social entrepreneurs, women entrepreneurs promote the creation processes and aid in the development of solutions for socioeconomic problems.	Effectuation theory	Case study approach

Section 2: Empirical studies

4 Need for Replication Study: An empirical overview

Abstract. *Replication of published research has been emphasized as a core and vital research practice in business and management science. Scholars lack the resources to increase replication papers in top journals, despite the growing interest in replication procedures. However, if there are any facts to this scenario, they must be summarized because the material that is now available does not offer concise facts and numbers. Thus, by keeping track of all top journals, our study provides an overview of all publications of independent replication studies based on the prevalence and variety of these investigations in management science. We obtained 240 independent replication samples by using several keywords, such as "replication," in a sample of 1351 research publications from the top 52 journals. Through a methodical, in-depth coding technique, we further identified, differentiated, and characterized several types of replication studies. We examined a significant number of articles from top journals and used the results to offer an overview of replication publications. Moreover, we elaborate on the practical and theoretical implications of our research outcomes and offer avenues for future research*[1].

Keywords: *management publications; Independent replication; replication prevalence; replication types; quantitative replication outcomes.*

[1]This chapter is based on Block et al. (2022)

4.1 Why Replication Study?

High academic and practical concern has been raised by research on replication publication and its effect on the quality assurance of published work, which has made it highly relevant to look into these phenomena (Hubbard, Vetter, & Little, 1998; Hedges & Schauer, 2019a; Mueller-Langer et al., 2019; Hansen & Block, 2020; Köhler & Cortina, 2019). The overview of a small number of replication articles in many fields has historically been produced by a variety of authors; for instance, Hubbard and colleagues (1994, 1996, 1998) merged their statistical efforts in business science to review publications of replication studies. A new study in the field of economics by Mueller et al. (2019) reveals that there is also a lack of effort when it comes to publishing a replication study.

According to Köhler and Cortina (2019), there are more crucial concerns that academics should look into when analyzing replication studies than only the publication of a small number of replication studies. Scholars lose interest in doing replication studies because there is no precise definition of what constitutes replication research. Determining the definition of different types of replication studies is a difficult undertaking, according to Bettis et al. (2016). The body of research now in existence does not offer convincing justification for academics to use any particular replication study design. Over a long length of time, researchers tried to define replication studies and classify them according to different categories, but their standards were just theoretical (Tsang & Kwan, 1999; Darley, 2000).

Our study aims to shed light on these significant aspects by addressing the following research questions. Recognizing these emerging questions, we combined all the factors and knowledge gaps about the replication crisis that scholars have been questioning through their research work (e.g., Pashler & Harris, 2012; Köhler & Cortina, 2019).

RQ4.1: *How prevalent are replication studies in the field of management?*

RQ4.2: *What types and forms of replication studies are conducted?*

RQ4.3: *What are the replication results?*

RQ4.4: *When it comes to citation, how does replication affect the scientific area?*

Our study suggested and looked into three different directions to address these research problems. The first direction focuses on how frequently replication studies are conducted in the management, entrepreneurship, and innovation science fields. As a preliminary step, we reviewed the publishing of numerous replication study types together in top journals classified into different areas. Our major goal is to examine how frequently replication studies of various sorts have been published over a longer period. We performed a quantitative analysis to determine the increasing likelihood of replication research publication in reputable journals. Second, we concentrated on the most significant replication forms in our evaluation of replication publishing to address the following research question. Vazire (2018) contends that if replication is not published independently, it is based on a compromised and biased judgment. To acquire a significant number of publications, we concentrated on a more independent and customized replication study. Independent replication studies were separated into a sample of all replication studies.

Then, by categorizing independent replication studies into different categories, we went one step further to address the second question. According to numerous academics, the categorization of replication studies into different kinds is a paradoxical process because of its intertwined nature and lack of a clear classification (Hubbard, Vetter, & Little, 1998; Bettis, Helfat, & Shaver, 2016). By developing several critical parameters, we established an intense coding approach to analyze diverse replication study kinds. Thirdly, we focused on synthesizing

statistical features of replication studies by presenting focused empirical findings and the effect of citation on the general research field to provide an answer to the third question.

Our study is the first of its kind to provide substantial consideration. By providing statistical support for researchers, our work enhances the idea of publishing replication studies. Replication studies are crucial to assess and undertake, according to Hedges and Schauer (2019b), hence the frequency of their publication is a compromised norm for many academics and publications. To provide a thorough analysis of the current situation, we reviewed the publishing of replication studies. The latest research also offers a resolution to the ongoing controversy over the replication definition dilemma (Stroebe & Strack, 2014). We provided a methodical approach to categorize replication studies into different kinds by assessing several crucial factors. This study's main objective is to describe the prevalence, types, and outcomes of replication studies, as well as the effects of those investigations.

4.2 What is a Replication Study?

Replication of scientific research is essential following many ground-breaking investigations of experts to demonstrate the validity of statistical findings (Rosenthal & Rosnow, 1984; Blaug, 1992; Easley, Madden, & Gray, 2013; Stroebe & Strack, 2014). A replication study is, as defined in earlier research to give validation, reproducibility, and regeneration of investigated outcomes (Nosek & Errington, 2020; Schmidt, 2016). It is possible to provide legitimacy to facts and numbers by allowing for computational duplicability and the production of related outcomes (Van, 2016; Walker et al., 2017). Replication studies are a common practice in social science to begin the investigation of published research, according to Tsang and Kwan (1999). In contrast, there is concern about the scientific reproducibility of published reputation and the possibility of misconduct and scientific fraud in the fields of social and management science. Re-examining

research articles has so remained discouraging despite rising pressure from editors, funding bodies, and universities.

A temporary solution to ensure reproducibility and identify the distinctiveness in conduct is to undertake replication studies (Lacetera & Zirulia, 2011; Crocker & Cooper, 2011; Chambers & Sumner, 2012). Scholars have argued that if results can be replicated by other researchers, the validity of the findings may be demonstrated throughout time. Otherwise, there is no conclusive evidence about the findings (Pashler & Harris, 2012; Bettis et al., 2016; Hensel, 2019). Due to the scarcity of source information that can repeatedly produce the same results, replication studies are published at a low rate (Schooler, 2014; Berry et al., 2017; Stanley, Carter & Doucouliagos, 2018; Fidler & Wilcox, 2018; Aguinis & Solarino, 2019). According to Hubbard and Vetter's study (1996), there have not been many replication studies done in the business and management fields. Similar to this, Mueller-Langer et al. (2019) showed that only 0.1% of replication experiments were published in journals of economics and accounting. While 1.07% of replication studies, according to Makel, Plucker, and Hegarty (2012), were published in psychological publications. Moreover, research by other academics in the fields of business, marketing, entrepreneurship, international business, and management science supports the idea that replication studies are not frequently published (as mentioned in Table 4.1).

The inevitable release of empirical data from replication studies has received significant attention in previous decades (Dewald et al., 1986; Hubbard & Armstrong, 1994; Hubbard, Vetter, & Little, 1998; Gamboa & Brouthers, 2008; Köhler & Cortina, 2019; Mueller-Langer et al., 2019). Therefore, it is necessary to reconsider the requirement for the publication of replication studies to establish and uphold a standard for evaluating the veracity of the results published. A few issues that prevent the replication studies from being published frequently have been discussed in the literature. First, it is determined that Replicability is an impractical goal because firm replication

of results is unattainable due to the lack of datasets (Simmons et al., 2011; Pashler & Harris, 2012). Second, the acquisition of data through experiments is another factor that makes it difficult for replication studies to be published frequently. Because there are so many different experimental methods, it is challenging to track experimental processes and methodology. Thirdly, in addition to the absence of data and the issue with methodological transcription's transparency, the creation of results that are closely related to the original work is also a difficult task (Hamermesh, 2007; Hamermesh, 2017; Grimmelikhuijsen & Porumbescu, 2017). Fourthly, because top journals and editors demand it, the majority of scholars wished to be acknowledged for their original contributions to the field of research. Repeating existing procedures becomes a less important phenomenon for scholars because they need a more modernized approach and datasets to bring uniqueness (Fanelli, 2012).

Replication studies are extremely ethical tasks that prestigious publications and well-known academics do not want to devote their time to, even though they can be used to detect fraud. Numerous researchers have failed to replicate and demonstrate comparable results because it is very common for replication efforts to fail to produce similar results (Maxwell, Lau, & Howard, 2015; Van Witteloostuijn, 2016; Nakagawa & Parker, 2015; Fraser et al., 2018). To start a new era of investigation and study, prominent academics, editors, and researchers have been defining and scaling numerous types of replication experiments (Lykken, 1968; Kelly et al., 1979; Reid et al., 1981; Singh et al., 2003; Asendorpf et al., 2013; Stroebe & Strack, 2014). Tsang and Kwan (1999) gave a descriptive definition of the numerous replication study types based on the data and varied sample approaches. They talked about conceptual and exact replication in replication studies. Likewise, Lykken (1968) provided a variety of replication study styles, including literal, constructive, quasi-random, cofounded, and regressive replication studies. There are several classifications and criteria for every sort of replication research. Literal and exact replication

studies are those that can be carried out using the identical data set, methods, and measurement as the original study, according to Kelly and colleagues (1979). Constructive replication studies, also known as conceptual replication studies, were characterized by Stroebe and Strack (2014) as studies that are carried out to support the theoretical flaw in previously published findings. Authors are keener to find some innovation in the research effort since cofounded and regressive replication studies in particular show slight changes and novelty in the research work (Köhler & Cortina, 2019).

Researchers have also contested the distinct natures of replication, reproducibility, and generalization. Therefore, Asendorpf et al. (2013) explain that generalization refers to a more haphazard repeating of a few facts to produce an expansion of those facts, whereas reproducibility refers to detecting the quantitative capability of the research work. Replication is therefore encouraged to review published research with greater focus (McElreath & Smaldino, 2015). Researchers have stated the fact that replication can be of various forms, the independent and dependent reproducibility of previous research studies is based on the status of the author (Benson & Borrego, 2015; Gómez & Acuña, 2014; McElreath & Smaldino, 2015; Köhler & Cortina, 2019), if the same group of authors reproduces the original published work, it forms a dependable status of the replication study. Whereas if replication is produced by a different group of scholars, it generalizes the independent status of the replication study.

The primary goal of the current study is not only to provide an overview of the frequency of replication studies published over a long period but also to illustrate with facts and figures that the first step in regulating the publication of replication studies is to make data readily available and methodological aspects transparent. Since replication is not a standard practice among publishing organizations, the current study is the first to offer such a comprehensive review of a particular independent replication investigation (Morrell & Lucas, 2012). Our work categorizes

replication studies into literal, constructive, quasi-random, confounded, and regressive replication. Our study addressed the reconceptualization of the advantage of replication study and also stimulated writers to regenerate the published work in response to earlier work by authors, such as Köhler and Cortina (2019). We persuade researchers to give datasets for their published findings while we conduct this analysis. Therefore, other authors may be able to replicate the results. To achieve this, this study also offers a brief categorization and discussion of other variables about replication and replicated studies.

Our study was able to do this by conducting a methodical review of 56 articles. We were able to identify the sample of 240 replication studies because our investigation only included independent replication studies. We took into account the total quantity of research articles from all volumes that were published in 56 prominent journals across all disciplines. Additionally, we categorize replication studies into different types. We concentrated on five replication study types that have been identified in the literature as being significant, i.e.: 1) literal replication studies, 2) constructive replication studies, 3) quasi-random replication studies, 4) regressive replication studies, and 5) con-founded replication studies. Our sample demonstrated that there are very few literal, regressive, and confounded replication studies overall. This study's sample showed that 57.9% of replication studies are of the quasi-random kind, which makes up a significant portion of the total. These statistical results showed that because researchers are free to deviate from the rigorous originality of duplicated experiments, they produce more quasi-random studies. Interestingly, we discovered that 20.4% of replication studies fall into the category of those that do not accurately reproduce the findings of the original study.

Table 4.1: Overview of Replication publication

Study	Areas and Journals Analyze	Author's Contributions			
		Purpose of study	**Sample**	**Period**	**Finding of study**
Hubbard & Armstrong (1994)	Empirical articles published in 3 marketing journals.	The main concern of the study is to examine the rate of replication papers published by an independent researcher.	Of the initial 1,120 research papers, 835 empirical studies are used.	1974-1989	20 (2.4%) out of 835 studies are extended replication.
Hubbard & Vetter (1996)	Empirical articles published in 18 business journals.	The main concern of the study is to investigate an equal rate of replication study in all selected business journals.	Of the initial 6,400 research Papers, 4,270 empirical studies are used.	1970-1991	266 (6.2%) out of 4270 are replication with extension.
Hubbard et al. (1998)	Empirical articles published in 9 top management journals.	The main focus of the study is to examine the publication rate of replication studies.	Of the initial 1373 research papers, 701 empirical studies are used.	1976-1995	37 (5.3%) out of 701 are replication with extension.
Darley (2000)	Empirical articles published in 3 top marketing journals.	The main concern of the study is to investigate the likelihood of replication study in selected journals.	Of the initial 1241 research papers, 970 empirical studies are used.	1986-1995	22 (2.3%) out of 970 are replication with extension.
Evanschitzky et al. (2007)	Empirical articles published in 5 top business and marketing journals.	The main apprehension of the study is to examine the publication probability of a replication study.	A total of 2409 empirical studies are used.	1990-2004	41 (1.7%) out of 2409 are replication with extension.
Gamboa & Brouthers (2008)	All articles were published in 9 chief entrepreneurship, international business, and management journals.	The main purpose of the study is to find the preference for a replication study.	Of the initial 3072 research papers, 127 IE-related studies are used.	1986-2004	73 (58%) out of 127 are replication.
Park et al. (2015).	All articles were published in 4 business advertisement journals.	The main aim of the study is to detect replication studies and distinguish between studies.	Of the initial 5269 articles, 2856 research articles are used.	1980-2012	184 (6.5%) out of 2856 are replication studies.
Köhler & Cortina (2019)	Empirical articles published in 3 top management journals.	The main purpose of the study is to identify replication studies and segregate studies.	Of the initial 796 research papers, 508 empirical studies are used.	2007-2017	406 (80%) out of 508 are replication studies.

4.3 Methodology

In this study, we stipulated the whole criteria of our study in multiple phases. We defined the phases according to our research goals. Our main focus was to cover top tire journals and analyze the publication frequency of various kinds of replication studies.

4.3.1 Selection of journal

In the preliminary phase, we considered top tire journals, mentioned in the ABS list (Association of Business Schools, 2018; Hubbard & Vetter, 1996; Walker et al., 2017), publishing in classified areas of research. Before this study, Hubbard and Vetter, (1996) examined replication studies in top-tier journals publishing in accounting, finance, economics, business, and management. However, our sole purpose was to scrutinize the publication of replication studies in the research area of entrepreneurship, business, management, innovation, and strategy following sequence from the ABS list with 1,582 journals in 22 research sections. Top tire journals, as listed in the ABS list, are the focus of the current study since these journals have earned the reputation and scholar's attention at the large figure. Following the area of interest of the current study, the ABS list provided us with eight sections of classification in which journals are ranked on a scale from 1 (lowest rating) to 4* (highest rating).

After we finalized our area of interest in which we want to select journals, formerly followed from the ABS list, we considered creating a few criteria for journal selection as it's difficult to consider all journals. Therefore, Firstly, we selected journals only containing 3, 4, or 4* ranking points and ignored other journals with a ranking of two or one points, also journals have been excluded which do not strictly publish studies addressing research issues of entrepreneurship, business, management, innovation and strategy (e.g., Accident Analysis and Prevention or Mathematical Programming). Secondly, our interest strictly lies in journals that publish empirical studies therefore we have excluded theoretical and conceptual journals in our study (e.g., Academy of Management Annals). This criterion supported our endeavor to

analyze the reproducibility of data through empirical investigation in research studies. We also excluded the journals that publish studies only addressing some specific region and investigated the dynamics of only that region (e.g., African Affair).

In this study, we addressed all the issues of journals from the first volume to the last volume published in 2020 or all available volumes of the journal, we decided to cover all the years to provide wide coverage of publications. However, as an outcome, we obtained a list of 56 journals to generate our sample and conduct a systematic analysis. Thirdly, for a journal to be included in the list, journals should contain at least one replication study, which is also considered an important criterion. Consequently, keeping this in focus we excluded four more journals from the list with zero publication of replication articles. As the final list of journals, we achieved 52 journals (as mentioned in Figure 4.1). The next phase of the selection of replication study was entering a keyword in the journal search engine which provided us with the number of results mentioning word replication.

4.3.2 Selection of Replication Studies

We instigated a few approaches to create a sample of replication studies. These approaches helped our research goals to narrow down the replication sample. After finalizing our area of interest and selection of journals we focused on the selection of replication studies. In the next phase, we initiate our sample selection by searching keywords or terms (stems) in search engines of journals, we utilized the following keywords “replicate”, “replication”, “replicating”, “revisit”, “reexamine”, “retesting” (Köhler & Cortina, 2019; Mueller-langer et al., 2019). We captured and considered all the volumes published in all selected journals till 2020. We also searched the key terms in Google Scholar (advanced search function), considering all papers published, for a few journals that do not provide all volumes on one platform. We conducted ‘keywords’ research in the full body text of the research study to identify how many options and types of replication studies are available. The keyword search

in this study is not limited to title and abstract. All 52 journals have a total of 159,242 articles and publications. Out of the total papers published in 52 journals. 25,595 research studies turned out to be the results of the 'key term' we searched in journals and Google Scholar till the year 2020. Because of the nature of the initial results, we have to go through all the results thoroughly as our research is not limited to the title and abstract.

We formed a few criteria to segregate all potential replication studies out of the 24,595 results that we obtained from a 'keyword search. Firstly, our research is strictly interested in empirical studies therefore we excluded studies non-empirical with qualitative and conceptual nature. Secondly, from 24,595 articles turned up in these searches, we excluded papers that did not collect any data (e.g., editorials, book reviews, author guidelines, commentaries, and research notes). However, we included research notes or commentaries that reproduced the data and technically analyzed the data as replication. Thirdly, we excluded papers that mentioned key terms such as "replication" in the reference list of the article, papers in which authors referred that their work requires future replication but did not claim their study as replication, and papers that used the word "replication" in a sense of the metaphoric term. For example, some authors used the term in the sense of scientific terminologies but technically did not conduct a replication of a previous study according to the replication definitions. While filtering and conducting the selection of replication studies, it had been considered as a prerequisite for replication studies to contain citations or references of the previous study, those studies had been included in the sample (Reid et al., 1981).

In the first phase after the exclusion of studies from 24,595 results, we obtained a total of 1,351 replication studies of various types, also of dependent and independent nature from 52 journals. Our research goals are solely to have a sample of independent and semi-independent studies. Because in these studies data has been produced by different authors and the element of bias can be perceived as low. We considered all types of potential literal (Tsang & Kwan, 1999), constructive (Lykken, 1968), quasi-random, and other types of

replication studies initially. We further sub-segregated various types of replications according to authorship status as we described earlier and our focus is on the independent and semi-independent nature of replication studies. We segregated replication study as dependent replication study if the study is replicated by the same authors as the original study, semi-independent replication if the study is replicated by few researchers of the replicated study and a new researcher also joined the team, and independent replication if the replication study has been replicated by a new set of researchers. As we stated previously, replication of prior work exists in many forms and we collected data without distinguishing these forms initially.

Former researchers referred to replication studies as dependent replication, independent replication, partial replication, quasi-replication, constructive replication, literal replication, and in few more types (Lykken, 1968; Kelly et al., 1979; Asendorpf et al., 2013; Makel & Plucker, 2014; Stroebe & Strack, 2014; Benson & Borrego, 2015). However, existing literature does not offer precise descriptions and standard parameters to discriminate various types of replications. Initially, we distinguished replication study into two main forms based on authorship status. Multiple studies conducted by the same authors did not signify the liberation of the design. Authors conducting study 1 and the same author following the same design in study 2 as replication of study 1 at the same time can lead towards the bias of design and the relevancy of replication is questionable. Whereas, the author decided to conduct a replication of their study at another time and also express less vigilant results. Hence, we excluded all such studies where researchers conducted a replication of their work in a different year and also conducted study 2 as a replication of study 1 in the same year, later can be considered as multiple studies. Nevertheless, we included such studies in the sample where the authors, in their multiple replication studies, referred to and replicated the design of published research conducted by different researchers. As an outcome, we achieved 439 studies of independent and semi-independent nature out of 1351 total potential replication studies.

So, the sample that we collected at the initial stage and the later stage is 1351 total replication studies which is 5.5% of the total 24,595 studies. 0ut of the 1351 studies we have 734 independent/semi-independent replication studies (55%) in 48 journals and we have 608 (45%) dependent replication studies out of 1351 studies that are not the concern of our research interest. After we had derived our initial broad sample from total replication studies, we further distinguished three more samples toward the final sample. The replication study sample 1 (RS 1) consists of all 439 independent replication studies in 48 journals[2], sample 2 (RS 2) consists of 374 studies and this sample only includes independent replication studies which have no intersection of the authors between replication and original study. Finally, in sample 3 of the replication study (RS 3), we omitted those studies trying to replicate more than one study in the replication study. One question is inevitable here we recognized the need to produce more replication studies but still, there is a huge gap in the number of publications when it comes to preferring replication studies. Although such replications are of progression of the extremely needed discussed area of research in management and business science. It is tough to distinguish the type of replication. The distribution of the sample as per total studies, results achieved from keyword search, and total potential replication studies according to a single journal is mentioned in Table 4.1. We were not able to find any replication studies for RS 1 in 8 of the 56 journals considered (i.e., International Small Business Journal, Business Ethics Quarterly, Gender and Society, Gender, Work and Organization, Journal of Common Market Studies, Organization, Global Strategy Journal, Long Range Planning). These journals are excluded from Table 4.2.

[2] We were not able to find any replication studies for RS 1 in 8 of the 56 journals considered (i.e., International Small Business Journal, Business Ethics Quarterly, Gender and Society, Gender, Work and Organization, Journal of Common Market Studies, Organization, Global Strategy Journal, Long Range Planning). These journals are excluded from Table 4.3.

Figure 4.1: Selection criteria of Replication Studies

4.3.3 Coding of identified Replication Studies and variables

To provide answers to our further research question we advanced with more systematic criteria to further distinguish true replication studies in our sample. To do so, we mainly paid attention to avail RS 3 which is to point the final sample according to our research interest. As we have excluded replication studies to reach RS 3 based on the production of multiple studies in one study, replication is the main contribution and empirical status of the replication study as mentioned above. After availing the final sample of RS 3 which is an exact sample, aligning with our research interest, we further distinguished our sample into five replication types. To estimate the replication form, we compared the samples, variables, measurements, and empirical analyses of the replication study and the equivalent of the original study. Following Köhler and Cortina (2019), we coded replication studies into five types 1) literal, 2) constructive, 3) quasi-random, 4) confounded, and 5) regressive replication studies.

We identified the specific type of replication studies based on four criteria and sub-criteria, firstly we coded studies based on the quality of the sample whether it was better, worse, same/similar, or different but neither better nor worse in association with the sample of the original study. Secondly, the quality of variables was considered based on better, worse, same/similar, or different but neither better nor worse when compared to the original study. Thirdly, the quality of measurement is considered with the same sub-scale as defined above, Fourthly, the quality of empirical analysis of replication in comparison with the original study is considered. Replication study turned out to be literal (e.g., Köhler & Cortina, 2019; Lykken, 1968; Stroebe & Strack, 2014) if the quality of the sample, variables used, measurement, and empirical analysis were coded ‘same/similar to the original study.

The replication study was coded constructive if the study increased the original study in exterior rationality (e.g., quality of the sample) interior rationality (e.g., quality of the variables used, measurement or quantitative analysis), or both. If a study was evaluated as

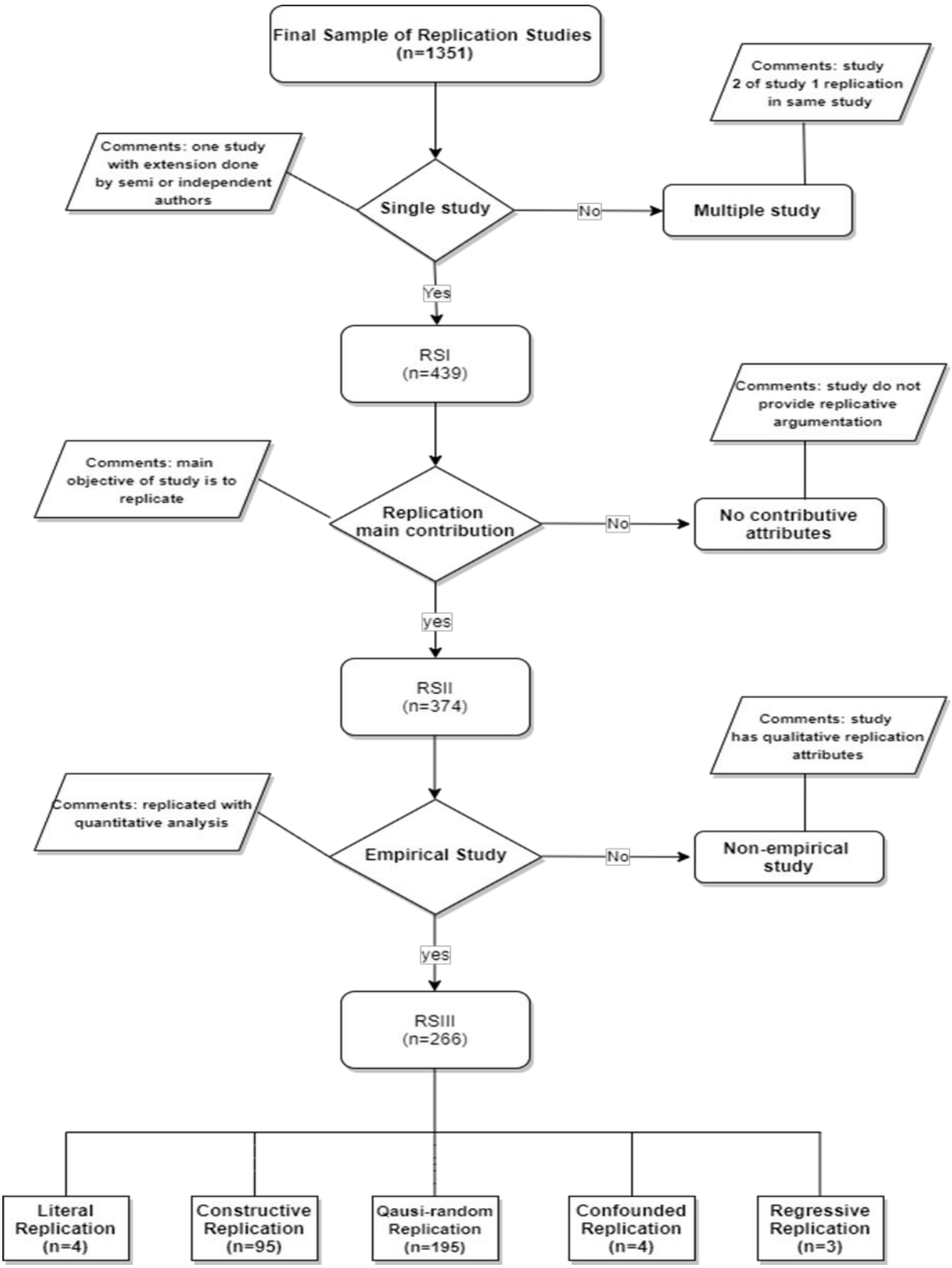
inferior in any quality dimension, we coded it as a quasi-random replication. Also, if the study was determined to be 'different but neither better nor worse" in one of the quality extents, we identified it as quasi-random. A study was identified as confounded replication if the replication study's peripheral credibility is lower but the inner validity has enhanced as equated to the original study. Lastly, we coded the study as regressive if the study was similar in all quality criteria of the original study but in one dimension where it is inferior (Köhler & Cortina, 2019). We mentioned all the criteria in Figure 4.2.

4.3.4 Variable measurement

To determine the outcome of the replication study and also to answer the last research question we defined the measurement of variables collected from replication studies and original studies. Firstly, we defined variable replication outcomes based on full, partial, and no replicability of the original results. If the replication study replicated all the results of an original study, it was coded fully replicated, if some of the results of the original study were supported in the replication study, it was rated partially replicated and lastly, if none of the results from the original study were supported in the replication study, then it is evaluated as not replicated study.

We measured the next variable replication study's impact through the number of citations the study received on Google Scholar. We collected citations till May 2021 for both the replication study and the original study associated with it. Google Scholar provides strong metrics and measurement criteria for the calculation of citations (Harzing, 2014). Furthermore, to conduct a regression analysis, we considered dimensions from both the replication study and the original study. We created a dummy variable based on the journal's sub-discipline, following ABS ranking (i.e., ENT-SBM, ETHICS-CSR- MAN, IB&AREA, INNOV, OR&MANSCI, ORG STUD, PSYCH (WOP-OB), or STRAT). We also collected

Figure 4.2: Coding criteria of Replication Studies



data on study interval in years till 2021 from the replication study and the original study as a measurement of the age of the paper.

We created a dummy variable to investigate whether the original study appeared in the same journal as the replication. As mentioned above we collected data on citations from Google Scholar till December 2020 to evaluate the effect of the original study. We calculated the log on Google Scholar citation. Lastly, we reported the number of co-authors in the original study. We have mentioned Table 4 in the Appendix which contains a list of all variables with measurement and coding criteria.

4.4 Findings

4.4.1 Overview results and descriptive statistics

The overview of our study provided us with empirical outcomes consisting of replication study data collected from 56 top tire journals. Table 4.2 illustrates descriptive statistics of the overview of our research study covering sub-disciplines in management and business over various years. Table 4.2 (column 1) indicates journal characteristics and initial sample, (column 2) demonstrates the total number of replication studies regarding authorship status, (column 3) illustrates the total number of initial replication studies every 15 years (1955-1970, 1971-1986, 1987-2002 and 2003-2020), whereas (column 4) presents the final number of replication studies based on coding following three scenarios 1) study multiplication, 2) the main contribution of the study, 3) empirical status of the study, as outcome were avail in RS 3 sample. Additionally, (column 5) states the number of replication studies distributed according to replication outcome if the results of the replication study fully, partially, and negatively support the results of the original study. Finally (column 6) provides the final number of replication studies distributed into 5 types of replication studies consist of literal, constructive, quasi-random, regressive, and co-founded replication studies.

Table 4.2: Overview of the studies in our sample

Area of journal and journal	(1) Replication characteristics					
	ABS rating	Year	Volume	# Articles	Keyword results	# repl.
Entrepreneurship and Small Business Management						**47**
Entrepreneurship, Theory and Practice	4	1976	44	1,549	263	10
Journal of Business Venturing	4	1985	35	1,427	404	9
Strategic Entrepreneurship Journal	4	2007	14	389	79	3
Entrepreneurship and Regional Development	3	1989	32	978	144	2
Family Business Review	3	1988	33	655	98	6
International Small Business Journal	3	1982	38	838	96	3
Journal of Small Business Management	3	1963	57	905	149	4
Small Business Economics	3	1989	55	2,312	515	10
General Management, Ethics and Social Responsibility						**434**
Academy of Management Journal	4	1950	63	4,155	879	128
Administrative Science Quarterly	4	1999	65	1,314	127	7
Journal of Management	4	1979	46	1,979	497	85
British Journal of Management	4	1990	31	1,312	199	7
Business Ethics Quarterly	4	1991	30	1,604	98	4
Journal of Management Studies	4	1964	57	2,591	411	11
Business and Society	3	1960	59	941	118	4
European Management Review	3	2004	17	537	96	3
Gender and Society	3	1987	34	920	44	0
Gender, Work, and Organization	3	1994	27	1,325	83	0
Journal of Business Ethics	3	1982	167	8,850	1,510	101
Journal of Business Research	3	1973	121	7,840	2,354	84
International Business and Studies Area						**59**
Journal of International Business Studies	4	1970	51	2,796	696	23
Journal of World Business	4	1965	55	4,777	367	3
Asia Pacific Journal of Management	3	1984	37	1,297	361	12
International Business Review	3	1992	29	1,844	416	6
Journal of Common Market Studies	3	1962	58	3,660	157	0
Journal of International Management	3	1999	26	839	190	4
Management International Review	3	1960	60	9,550	626	11
Innovation						**17**
Research Policy	4	1971	49	4,180	815	9
Journal of Product Innovation Management	4	1984	37	2,062	220	6
R and D Management	3	1970	50	2,184	168	1
Technovation	3	1981	98	3,130	239	1
Operations Research and Management Science						**41**
Management Science	4	1954	66	9,625	965	41
Organization Studies						**116**
Organization Science	4	1990	31	1,956	492	10
Human Relations	4	1947	73	8.150	864	24
Leadership Quarterly	4	1990	31	2,100	470	59
Organization Studies	4	1980	41	3,635	292	7
Organizational Research Methods	4	1989	23	791	175	5
Group and Organization Management	3	1976	45	1,642	207	11
Organization	3	1994	27	1583	93	0
Psychology (Organizational)						**556**
Journal of Applied Psychology	4	1917	105	9,963	1,763	278
Journal of Occupational and Organizational Psychology	4	1975	93	1,300	302	23
Journal of Occupational Health Psychology	4	1996	25	888	264	7
Journal of Organizational Behavior	4	1980	41	2,462	540	36
Journal of Vocational Behavior	4	1971	123	3,590	1,133	63
Organizational Behavior and Human Decision Processes	4	1966	161	2,510	941	59
Personnel Psychology	4	1948	73	7,940	566	36
Applied Psychology: An International Review	3	1952	69	2,109	328	9
European Journal of Work and Organizational Psychology	3	1991	29	1,246	317	12
Human Factors: JHFES	3	1958	62	4,278	545	13
Human Performance	3	1988	33	672	178	6
Journal of Managerial Psychology	3	1986	35	1,750	307	8
Work and Stress	3	1987	34	1,071	160	6
Strategy						**81**
Strategic Management Journal	4	1980	41	3,264	794	67
Global Strategy Journal	3	2011	10	300	69	1
Long Range Planning	3	1979	53	7,226	326	1
Strategic Organization	3	2003	18	451	85	3
Total	**-**	**-**	**-**	**159,242**	**24,595**	**1,351**

Notes: We considered all volumes that were published until December 31st, 2020.

Table4.2: (continued)

Area of journal and journal	(2) Replication studies			(3) No independent replication over years			
	# repl.	# Depend repl.	# Independ repl.	1955-1970	1971-1986	1987-2002	2003-2020
Entrepreneurship and Small Business Management	**47**	**7**	**40**	**0**	**0**	**12**	**28**
Entrepreneurship, Theory and Practice	10	2	8	0	0	4	4
Journal of Business Venturing	9	1	8	0	0	1	7
Strategic Entrepreneurship Journal	3	1	2	0	0	0	2
Entrepreneurship and Regional Development	2	0	2	0	0	0	2
Family Business Review	6	1	5	0	0	2	3
International Small Business Journal	3	2	1	0	0	1	0
Journal of Small Business Management	4	0	4	0	0	2	2
Small Business Economics	10	0	10	0	0	2	8
General Management, Ethics & Social Responsibility	**434**	**207**	**227**	**1**	**23**	**56**	**148**
Academy of Management Journal	128	84	44	0	15	5	24
Administrative Science Quarterly	7	1	6	1	3	1	1
Journal of Management	85	47	38	0	3	6	29
British Journal of Management	7	1	6	0	0	2	4
Business Ethics Quarterly	4	2	2	0	0	0	2
Journal of Management Studies	11	0	11	0	1	4	6
Business and Society	4	0	4	0	0	0	4
European Management Review	3	0	3	0	0	0	3
Gender and Society	0	0	0	0	0	0	0
Gender, Work, and Organization	0	0	0	0	0	0	0
Journal of Business Ethics	101	41	60	0	0	18	42
Journal of Business Research	84	31	53	0	1	20	33
International Business and Studies Area	**59**	**9**	**50**	**0**	**4**	**12**	**34**
Journal of International Business Studies	23	7	16	0	1	4	11
Journal of World Business	3	0	3	0	0	0	3
Asia Pacific Journal of Management	12	0	12	0	2	3	7
International Business Review	6	0	6	0	0	2	4
Journal of Common Market Studies	0	0	0	0	0	0	0
Journal of International Management	4	0	4	0	0	1	3
Management International Review	11	2	9	0	1	2	6
Innovation	**17**	**2**	**15**	**0**	**0**	**4**	**11**
Research Policy	9	1	8	0	0	2	6
Journal of Product Innovation Management	6	1	5	0	0	1	4
R and D Management	1	0	1	0	0	1	0
Technovation	1	0	1	0	0	0	1
Operations Research and Management Science	**41**	**21**	**20**	**1**	**2**	**7**	**10**
Management Science	41	21	20	1	2	7	10
Organization Studies	**116**	**51**	**65**	**0**	**7**	**22**	**36**
Organization Science	10	6	4	0	0	0	4
Human Relations	24	8	16	0	4	11	1
Leadership Quarterly	59	29	30	0	0	2	28
Organization Studies	7	1	6	0	1	5	0
Organizational Research Methods	5	0	5	0	0	2	3
Group and Organization Management	11	7	4	0	2	2	0
Organization	0	0	0	0	0	0	0
Psychology (Organizational)	**556**	**296**	**260**	**5**	**52**	**74**	**128**
Journal of Applied Psychology	278	179	99	2	21	20	56
Journal of Occupational and Organizational Psychology	23	6	17	0	2	8	7
Journal of Occupational Health Psychology	7	0	7	0	0	1	6
Journal of Organizational Behavior	36	12	24	0	3	12	9
Journal of Vocational Behavior	63	21	42	0	16	10	16
Organizational Behavior and Human Decision Processes	59	39	20	0	0	8	11
Personnel Psychology	36	18	18	3	7	6	2
Applied Psychology: An International Review	9	2	7	0	1	2	4
European Journal of Work and Organizational	12	9	3	0	0	1	2
Psychology	13	3	10	0	2	2	6
Human Factors: JHFES	6	2	4	0	0	1	3
Human Performance	8	3	5	0	0	0	5
Journal of Managerial Psychology	6	2	4	0	0	3	1
Work and Stress							
Strategy	**81**	**23**	**58**	**0**	**2**	**16**	**40**
Strategic Management Journal	67	23	53	0	1	16	36
Global Strategy Journal	1	0	1	0	0	0	1
Long Range Planning	1	0	1	0	1	0	0
Strategic Organization	3	0	3	0	0	0	3
Total	**1,351**	**616**	**735**	**7**	**90**	**203**	**435**

Notes: We considered all volumes that were published until December 31st, 2020.

Table 4.2: (continued)

Area of journal and journal	(4) Final replication studies			(5) Replicated outcome		
	RS 1	RS 2	RS 3	Not	Partially	Fully
Entrepreneurship and Small Business Management	**18**	**16**	**12**	**1**	**5**	**6**
Entrepreneurship, Theory and Practice	2	1	1	0	0	1
Journal of Business Venturing	3	3	2	0	0	2
Strategic Entrepreneurship Journal	1	1	0	0	0	0
Entrepreneurship and Regional Development	1	1	1	0	1	0
Family Business Review	3	3	3	0	2	1
International Small Business Journal	0	0	0	0	0	0
Journal of Small Business Management	3	3	2	0	1	1
Small Business Economics	5	4	2	1	1	1
General Management, Ethics and Social Responsibility	**125**	**113**	**83**	**11**	**37**	**35**
Academy of Management Journal	16	14	9	2	1	6
Administrative Science Quarterly	4	3	2	0	1	1
Journal of Management	10	10	5	2	3	0
British Journal of Management	6	6	6	0	5	1
Business Ethics Quarterly	0	0	0	0	0	0
Journal of Management Studies	4	4	3	0	3	0
Business and Society	1	1	1	0	1	0
European Management Review	3	2	1	0	0	1
Gender and Society	0	0	0	0	0	0
Gender, Work, and Organization	0	0	0	0	0	0
Journal of Business Ethics	37	34	22	2	9	11
Journal of Business Research	44	39	34	5	14	15
International Business and Studies Area	**31**	**30**	**22**	**7**	**10**	**5**
Journal of International Business Studies	9	8	5	1	3	1
Journal of World Business	2	2	2	0	1	1
Asia Pacific Journal of Management	8	8	5	1	2	2
International Business Review	3	3	2	1	1	0
Journal of Common Market Studies	0	0	0	0	0	0
Journal of International Management	1	1	1	1	0	0
Management International Review	8	8	7	3	3	1
Innovation	**10**	**8**	**6**	**1**	**2**	**3**
Research Policy	5	4	3	0	1	2
Journal of Product Innovation Management	3	3	2	1	0	1
R and D Management	1	0	0	0	0	0
Technovation	1	1	1	0	1	0
Operations Research and Management Science	**10**	**9**	**6**	**1**	**4**	**1**
Management Science	10	9	6	1	4	1
Organization Studies	**33**	**27**	**17**	**2**	**11**	**4**
Organization Science	1	1	0	0	0	0
Human Relations	16	13	7	0	5	2
Leadership Quarterly	10	9	7	1	4	2
Organization Studies	1	1	1	0	1	0
Organizational Research Methods	3	2	2	1	1	0
Group and Organization Management	2	1	0	0	0	0
Organization	0	0	0	0	0	0
Psychology (Organizational)	**166**	**129**	**92**	**16**	**44**	**32**
Journal of Applied Psychology	53	46	34	6	16	12
Journal of Occupational and Organizational Psychology	11	7	7	0	6	1
Journal of Occupational Health Psychology	3	0	0	0	0	0
Journal of Organizational Behavior	13	12	6	1	3	2
Journal of Vocational Behavior	35	28	20	2	10	8
Organizational Behavior and Human Decision Processes	8	7	5	1	2	2
Personnel Psychology	17	11	10	3	4	3
Applied Psychology: An International Review	6	4	3	0	1	2
European Journal of Work and Organizational Psychology	3	2	2	1	1	0
Human Factors: JHFES	10	6	3	1	0	2
Human Performance	2	2	0	0	0	0
Journal of Managerial Psychology	2	1	1	0	1	0
Work and Stress	3	3	1	1	0	0
Strategy	**46**	**42**	**28**	**12**	**9**	**7**
Strategic Management Journal	45	41	27	12	8	7
Global Strategy Journal	0	0	0	0	0	0
Long Range Planning	0	0	0	0	0	0
Strategic Organization	1	1	1	0	1	0
Total	**439**	**374**	**266**	**51**	**122**	**93**

Notes: RS = replication study. We considered all volumes that were published until December 31st, 2020.

Table 4.2: (continued)

Area of journal and journal	(6) Replication type					
	RS 3	**Literal**	**Constructive**	**Regressive**	**Co-founded**	**Quasi-random**
Entrepreneurship and Small Business Management	**12**	**0**	**5**	**0**	**0**	**7**
Entrepreneurship, Theory and Practice	1	0	0	0	0	1
Journal of Business Venturing	2	0	0	0	0	2
Strategic Entrepreneurship Journal	0	0	0	0	0	0
Entrepreneurship and Regional Development	1	0	0	0	0	1
Family Business Review	3	0	1	0	0	2
International Small Business Journal	0	0	0	0	0	0
Journal of Small Business Management	2	0	2	0	0	0
Small Business Economics	2	0	2	0	0	1
General Management, Ethics and Social Responsibility	**83**	**2**	**34**	**0**	**3**	**44**
Academy of Management Journal	9	0	2	0	1	6
Administrative Science Quarterly	2	0	0	0	0	2
Journal of Management	5	0	3	0	0	2
British Journal of Management	6	0	3	0	1	2
Business Ethics Quarterly	0	0	0	0	0	0
Journal of Management Studies	3	0	1	0	0	2
Business and Society	1	0	1	0	0	0
European Management Review	1	0	1	0	0	0
Gender and Society	0	0	0	0	0	0
Gender, Work, and Organization	0	0	0	0	0	0
Journal of Business Ethics	22	1	4	0	1	16
Journal of Business Research	34	1	19	0	0	14
International Business and Studies Area	**22**	**1**	**8**	**0**	**0**	**13**
Journal of International Business Studies	5	1	2	0	0	2
Journal of World Business	2	0	1	0	0	1
Asia Pacific Journal of Management	5	0	2	0	0	3
International Business Review	2	0	0	0	0	2
Journal of Common Market Studies	0	0	0	0	0	0
Journal of International Management	1	0	0	0	0	1
Management International Review	7	0	3	0	0	4
Innovation	**6**	**0**	**2**	**0**	**0**	**4**
Research Policy	3	0	2	0	0	1
Journal of Product Innovation Management	2	0	0	0	0	2
R and D Management	0	0	0	0	0	0
Technovation	1	0	0	0	0	1
Operations Research and Management Science	**6**	**0**	**2**	**0**	**0**	**4**
Management Science	6	0	2	0	0	4
Organization Studies	**17**	**1**	**3**	**1**	**0**	**12**
Organization Science	0	0	0	0	0	0
Human Relations	7	0	2	0	0	5
Leadership Quarterly	7	1	0	1	0	5
Organization Studies	1	0	0	0	0	1
Organizational Research Methods	2	0	1	0	0	1
Group and Organization Management	0	0	0	0	0	0
Organization	0	0	0	0	0	0
Psychology (Organizational)	**92**	**0**	**26**	**2**	**0**	**64**
Journal of Applied Psychology	34	0	11	1	0	22
Journal of Occupational and Organizational Psychology	7	0	0	0	0	7
Journal of Occupational Health Psychology	0	0	0	0	0	0
Journal of Organizational Behavior	6	0	2	0	0	4
Journal of Vocational Behavior	20	0	8	0	0	12
Organizational Behavior and Human Decision Processes	5	0	1	1	0	3
Personnel Psychology	10	0	0	0	0	10
Applied Psychology: An International Review	3	0	1	0	0	2
European Journal of Work and Organizational Psychology	2	0	1	0	0	1
Human Factors: JHFES	3	0	1	0	0	2
Human Performance	0	0	0	0	0	0
Journal of Managerial Psychology	1	0	0	0	0	1
Work and Stress	1	0	1	0	0	0
Strategy	**28**	**0**	**15**	**0**	**1**	**1**
Strategic Management Journal	27	0	15	0	1	1
Global Strategy Journal	0	0	0	0	0	0
Long Range Planning	0	0	0	0	0	0
Strategic Organization	1	0	0	0	0	0
Total	**266**	**4**	**95**	**3**	**4**	**160**

Notes: RS = replication study. We considered all volumes that were published until December 31st, 2020.

Table 4.2 covers and provides basic initial results of the descriptive nature. We have coding detail in the online Appendix a list of all replication studies and original studies[3].

Our results revealed the answer to the first research question. As our initial results from sample 1351 as demonstrated in table 4.2 (column 1) revealed that Psychology (Organizational) (in 13 journals) has 556 studies, 434 studies in General Management, Ethics, Gender, and Social Responsibility (in 12 journals), we collected 81 replication studies in Strategy (in four journals), we recognized only 47 in Entrepreneurship and Small Business Management (in 8 journals), 41 in Operations and Management Science (in 1 journal), and 17 in Innovation (in 4 journals). In (column 2) we separated studies based on authorship status where we found 735 replication studies as independent and 616 replication studies as dependent. We also illustrated replication studies every 15 years which indicated that in recent years number of independent replication studies has somehow increased.

Furthermore, we excluded the replication studies based on the multiplication of the study, the main contribution of the study, and the empirical status of the replication study as compared to the original study. Our study found the results that the journals with the uppermost numbers of independent replication studies are the Journal of Applied Psychology (32 studies), Strategic Management Journal (27 studies), Journal of Business Research (30 studies), Journal of Business Ethics (18 studies) and Journal of Vocational Behavior (16 studies). 15 out of the 56 journals in the list did not have any independent replication studies at all. These results revealed that the prevalence of independent replication study is low but it varies according to journals and it is a matter of concern why few journals merely have high replication study publications.

In addition, to answer our second research question, we distinguished replication studies in five forms and according to the results, our study found that Only 4 out of 240

[3] Our appendix and the full reference list of all replication studies and original studies are available here: https://osf.io/ejcaz/ (accessed March 15th, 2022).

studies are literal replications. 139 out of 240 studies (57.9%) are quasi-random. In 91 out of 240 studies (37.9%), the replication is identified as a constructive replication. In addition, Confounded replications account for 4 cases (1.7%) and regressive replications account for two cases (0.8%). These results reveal that the high number of replication studies that exit is of quasi-random replication. Also, only a few journals have a high number of quasi-random replication studies in which the strategy area has a high value of replication study. To answer the third research question, we categorize replication studies as a comparison to original studies if the replication study has full, partial, and conflicted supported results of the original study. In results, 20.4% of the replication studies can fully replicate the findings of the original study, 47.9% of studies partially replicate the findings, and 31.7% of studies replicate the findings not at all. These percentages fluctuate by sub-discipline and in this setting two disciplines' viewpoints also vary.

These results revealed that most of the replication studies are partially replications of the results of the original study. Yet, these results are more comprehensive than a systematic quantitative overview. Table 4.3 provides a statistical answer to the fourth research question. We calculated mean and percentile values based on .10-, .25-, .75-, and .90-percentiles of citations of replication studies and original studies. The original studies obtain significantly high citations. The mean (median) number of citations is 1.038.7 (462.5) for the original studies against 142.6 (68.5) for the replication studies. The impact of the replication studies ranges from 4.5 at the .10 percentile to 367 at the .90 percentile. The standard deviation is 206.4.

Table 4.3: Descriptive comparison of our samples of Replication Studies and Original Studies.

Statistic/Variable	Sample of Replication Studies (RS 3)	Sample of Original Studies
Total (Google Scholar) citations	34,213	249,052
Mean (SD)	142.55 (206.43)	1,037.72 (1,486.19)
Percentile: 10%	4.5	80
Percentile: 25%	22	159
Percentile: 50%	68.5	462.5
Percentile: 75%	170	1,274
Percentile: 90%	367	2,364
Percentile: 99%	1,028	7,522
Mean of article age (as of 2021)	19.36 years	27.95 years

Notes: N = 480 (Replication Studies: N = 240; Original Studies; N = 240).

4.4.2 Multivariant results

To explore the effect of replication studies, we conducted a multivariant regression model for our research study. We evaluated the regression model by collecting quantitative data on citations from Google Scholar until 2020. We collected replication citations for both replication and original studies. We treated replication study citations and original study citations as our dependent studies. Since this variable is a count variable that only comprises non-negative integers, we utilized a negative binomial regression as our main estimator. As descriptive variables, we included a set of characteristics of the replication study and the original study. Table 4.4 indicates the results of the correlation matrix. Results indicated that our dependent variable citation of replication and original studies has no significant correlation with various forms of replication studies and original studies. Furthermore, results showed that the dependent variable has a negative significant correlation with not replicated results of replication studies as compared to original studies. But other than this, the dependent variable does not have any positive significant association with other variables except citation of

original studies. Hence, the citation of replication studies has a positive significant correlation with the citation of original studies.

To have more clarification we conducted a negative binominal regression of the variables in Table 4.5. In our findings we represent Model 1 which reflects the characteristics of replication studies, Model 2 reflects the characteristics of the original study, and Model 3 reflects both groups of variables together. Regarding the features of the duplication study, Model 3 shows that regressive replication studies obtain a suggestively higher number of citations. The additional replication types do not substantially fluctuate from quasi-random replications in terms of citations that a study obtains. Additionally, replication studies that do not reproduce the results of the original study obtain fewer citations than studies that fully or partially replicate.

Table 4.4: Descriptive statistics, correlations, and variance inflation factors

Variables	Mean	SD	Min.	Max.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	VIF
(1) Citations repl. study	142.6	206.4	0.00	1238																						1.43
(2) Type: literal	0.02	0.13	0.00	1.00	0.03																					1.07
(3) Type: constructive	0.38	0.49	0.00	1.00	-0.05	-0.10																				1.16
(4) Type: regressive	0.01	0.09	0.00	1.00	0.03	-0.01	-0.07																			1.09
(5) Type: confounded	0.02	0.13	0.00	1.00	0.03	-0.02	-0.10	-0.01																		1.07
(6) Type: quasirandom	0.58	0.50	0.00	1.00	0.03	-0.15	-0.92	-0.11	-0.15																	-
(7) Outcome: not replicated	0.20	0.40	0.00	1.00	-0.16	-0.07	0.03	-0.05	-0.07	0.01																1.51
(8) Outcome: partly repl.	0.48	0.50	0.00	1.00	0.04	0.14	-0.06	-0.09	0.01	0.04	-0.49															1.42
(9) Outcome: fully replicated	0.32	0.47	0.00	1.00	0.10	-0.09	0.04	0.13	0.05	-0.05	-0.34	-0.65														-
(10) ENT-SBM	0.05	0.21	0.00	1.00	-0.04	-0.03	0.03	-0.02	-0.03	-0.01	-0.06	-0.05	0.11													-
(11) ETHICS-CSR-MAN	0.30	0.46	0.00	1.00	0.05	0.06	0.04	-0.06	0.13	-0.08	-0.11	0.00	0.10	-0.14												5.58
(12) INNOV	0.02	0.14	0.00	1.00	0.11	-0.02	0.01	-0.01	-0.02	0.01	0.00	-0.02	0.03	-0.03	-0.1											1.50
(13) IB&AREA	0.09	0.29	0.00	1.00	-0.05	0.07	-0.01	-0.03	-0.04	0.01	0.09	-0.02	-0.06	-0.07	-0.21	-0.05										2.87
(14) OR&MASCI	0.03	0.16	0.00	1.00	0.12	-0.02	-0.02	-0.01	-0.02	0.03	-0.01	0.06	-0.05	-0.04	-0.11	-0.02	-0.05									1.64
(15) ORG STUD	0.05	0.23	0.00	1.00	-0.07	0.11	-0.07	-0.02	-0.03	0.05	-0.08	0.14	-0.08	-0.05	-0.16	-0.03	-0.08	-0.04								2.20
(16) PSYCH (WOP-OB)	0.34	0.48	0.00	1.00	0.00	-0.09	-0.09	0.13	-0.09	0.12	-0.02	0.03	-0.02	-0.16	-0.48	-0.11	-0.23	-0.12	-0.17							6.08
(17) STRAT	0.12	0.32	0.00	1.00	-0.05	0.12	-0.03	0.05	-0.11	0.20	-0.11	-0.05	-0.08	-0.24	-0.05	-0.08	-0.12	-0.06	-0.09	-0.26						3.36
(18) Publication lag	8.60	6.39	0.00	32.00	-0.14	0.04	0.22	0.11	-0.03	-0.24	-0.03	0.00	0.03	-0.02	0.02	-0.05	-0.03	0.06	-0.03	-0.14	0.23					1.52
(19) Article age original study	27.95	13.80	2.00	70.00	0.15	0.00	-0.10	0.12	0.02	0.07	0.05	-0.06	0.02	-0.12	-0.04	-0.14	-0.08	0.17	-0.04	0.27	-0.18	0.20				1.50
(20) Same journal	0.37	0.48	0.00	1.00	0.11	-0.03	-0.06	0.03	0.04	0.05	-0.02	-0.04	0.06	0.08	-0.16	-0.05	-0.15	-0.01	-0.07	0.16	0.15	-0.23	0.01			1.28
(21) Citations orig. study (log.)	6.12	1.39	1.39	9.17	0.32	0.03	-0.05	-0.08	0.11	0.02	-0.01	0.04	-0.04	0.05	0.10	0.00	0.09	0.05	-0.05	-0.26	0.14	0.23	-0.05	-0.22		1.52
(22) # Authors original study	2.23	1.05	1.00	10.00	0.01	-0.09	0.10	0.02	-0.06	-0.06	0.06	0.03	-0.09	0.03	-0.03	0.00	0.00	-0.01	0.05	0.04	-0.07	-0.15	-0.26	0.05	0.05	1.18

Notes: Variance inflation factors (VIF) calculated based on Table 5 (Model 3). Correlation coefficients highlighted in bold denote * $p < 0.05$. N = 240

We found no significant effect between citations and different sub-disciplines. Lastly, a higher citation lag (e.g., an extended period passed the publication of the original study and the replication study) outcome fewer citations. This specifies that studies available rapidly after the original study are more impactful. Regarding the characteristics of the original study, the results revealed that replications of older and significant studies obtain a higher number of citations.

Table 4.5: Negative binomial regression analysis (dependent variable: citations of the replication study)

Model Variables	**(1) Coeff. (SE)**	**(2) Coeff. (SE)**	**(3) Coeff. (SE)**
Characteristics of a Replication Study			
Type: literal	0.614 (0.375)		0.751 (0.511)
Type: constructive	0.133 (0.199)		0.219 (0.150)
Type: regressive	0.567 (0.331) *		1.214 (0.324) ***
Type: confounded	0.147 (0.396)		-0.277 (0.317)
Type: quasi-random	Ref.		Ref.
Outcome: not replicated	-0.769 (0.262) ***		-0.634 (0.216) ***
Outcome: partially replicated --	0.192 (0.212)		0.087 (0.153)
Outcome: fully replicated	Ref.		Ref.
Sub-discipline: ETHICS-CSR-MAN	0.527 (0.365)		0.439 (0.273)
Sub-discipline: INNOV	1.032 (0.644)		1.030 (0.615) *
Sub-discipline: IB&AREA	0.321 (0.453)		0.254 (0.358)
Sub-discipline: OR&MANSCI	1.166 (0.511) **		1.359 (0.779) *
Sub-discipline: ORG STUD	-0.083 (0.421)		0.064 (0.345)
Sub-discipline: PSYCH (WOP-OB)	0.473 (0.365)		0.330 (0.276)
Sub-discipline: STRAT	0.541 (0.458)		0.302 (0.347)
Sub-discipline: ENT-SBM	Ref.		Ref.
Publication lag to original study	-0.043 (0.013) ***		-0.080 (0.015) ***
Characteristics of the Original Study			
Age of original study		0.020 (0.006) ***	0.034 (0.008) ***
Published in the same journal		0.279 (0.166) *	0.109 (0.148)
Citations original study (log.)		0.418 (0.066) ***	0.481 (0.057) ***
# Author's original study		0.022 (0.084)	0.013 (0.082)
Observations	240	240	240
Chi	2 39.667	61.410	145.879
Sig.Chi2	0.000	0.000	0.000
Log_Likelihood	-1396.838	-132.766	-1355.170

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, ***, $p < 0.01$.

4.5 Discussion

4.5.1 Prevalence of Replication Studies

Our chapter provides a comprehensive list of studies that have been replicated in the management field, including information on how frequently these studies are published. We discovered that replication studies are infrequently published and that their frequency varies between disciplines and journals. Replication studies are rarely published in even the best-quality journals. Although there is a clear need for more replication studies to be published, resistance to their publishing still exists (De Massis et al., 2020; Maula & Stam, 2020). Duplication is a common phenomenon of failure for the publication of replication studies, according to Chan and Harvey's (2012) conclusion. In line with the findings of other studies, we also endorse the standard of the low prevalence of replication studies in the management studies area as well as in reputable journals.

4.5.2 Types of Independent Replication Studies

When it comes to the importance and equal publication of replication studies in various forms, again our research indicated that quasi-random independent replication studies are frequently to be published in journals. Whereas, another type of replication study is very rare in top tire journals due to the complex nature of other types of replication studies. Stroebe and Strack, (2014) argued that literal replication studies are more in crisis when it comes to adopting replication as a literal replication study. Köhler and Cortina (2019) also advocated the fact that quasi-random replication studies are commonly published because quasi-random studies are more diverse to adopt when compared with original studies. The reproducibility of the study work presented a challenge for authors in terms of providing exact results and replication. As a result, research involving quasi-random replication is published more frequently than studies

involving literal, regressive, and co-founded replication. However, in subsequent quasi-random replication studies, constructive replication also occurs frequently.

4.5.3 Replication outcomes

Regarding the outcomes of the replication studies, we estimated that 79.6% of the replication studies at least partially replicate the results of the original study. A hypothetical explanation that our research work suggests is that top tire journals in the management area suffer from partiality in contradiction to publishing replication studies that challenge the original study. This can be the assumption that many authors put effort into achieving replication of few results so they can support the value of their research work. Fully supported replication of original work has been assumed very rare case due to lack of data availability. The only concern that our research work has identified is that very few replication studies were able to fully support the findings of the original work. This is because the author is not able to follow the exact design of the original study when replicated.

4.5.4 Impact of Replication Studies

Finally, our last research question was about the impact of replication studies and concerning the impact of the replication studies, on average the studies are cited 142.6 times in our sample, Regression analysis shows that the replication studies that do not confirm the original studies are rarely cited. Citation is a strong indicator for presenting the significance of the author's work. Other scholar finds it interesting to mention the significance of published research work in their study. Our study supports the fact that replication studies are considered more impactful if they cite the original work and prominently discuss the original work. Studies published quite long ago are more likely to be cited. This indicates that older original studies will be promoted more in the coming years. Specifically, replication studies that prominently mention the original work become more attractive for authors to cite. But this assumption is

again arguable as the number of citations differs between journals and sub-disciplines between replication studies and original work. So, top-tier journals also have a differing tendency when citing replication studies and original work that has been replicated.

4.6 Future directions and conclusion

Our research study encourages other academics and journal authorities to have serious reservations about their future work. As a result, researchers and journal authorities can use our research study as a guide for future studies. First, our replication results call for more studies to have a better understanding of the criteria that journals consider when a submission is made for publication (Easley, Madden, & Gray, 2013). Research should identify the elements that can improve a paper's chances of being published when it is submitted to a journal. Researchers must present research that stands out in some way for journals to publish it, especially for replication studies. One of the rules especially addresses the submission of research data. Furthermore, we encourage other researchers to investigate the reasons why academics do not attempt to undertake replication studies as well as the factors that influence the original study's transparency.

Furthermore, we believe that researchers should consider the advantages of attempting quasi-random replication studies. An in-depth investigation is required to illustrate why certain types of replication studies are frequently published in prominent scientific journals while others are less frequently published. Consequently, this will solidify other academics' understanding of the importance of various replication study methods. Furthermore, we draw readers' attention to the disparity in replication study publishing rates among the top tire journals and sub-disciplines, which has been noted by previous writers. Replication study publications are more common in a small number of journals than they are in the top few journals, which have a very low tendency to publish replication studies. These components need to be highlighted by authors in their forthcoming research work with the assistance of

quantitative analysis. Additionally, it will be fascinating to do research based on interviews to learn the editors' perspectives on publishing replication studies in their journals.

We give empirical facts about the frequency of replication studies in prestigious tire journals as a conclusion. The low proportion of replication studies in top tire publications, which varies across journals and sub-disciplines, is what we observed. According to Aguinis et al. (2018), it's not always straightforward to comprehend how the study's methodology and other elements were conducted. Only a few different types of replication studies are frequently found in top-rated journals, indicating that the type of replication research also has an unequal propensity of publishing. The outcomes of replication studies, which develop around the provision of inconsistent support for the findings of original investigations, are also finalized by our research. When compared to original studies, the impact of replication studies is diminished. In light of this, replication studies concerning original findings are probably to have a greater influence. These findings support the current debate concerning the position on publishing and the need for replication in management research (e.g., Bergh et al., 2017; De Massis et al., 2020; Maula & Stam, 2020).

5 A re-evaluation of the determinants of SE

Abstract. *The empirical results of Stephan et al. (2015) are replicated and expanded upon in this research. The main contribution of institutional theory, according to the study, is how institutional determinants affect social entrepreneurial participation. The strength of formal and informal institutional configurations that significantly influence a person's preference to engage in social entrepreneurship was examined in this study. We reviewed Stephan et al. (2015) research utilizing a recent version of the dataset in addition to reproducing their findings. The current study was able to successfully replicate the results of the previous study based on the empirical findings. However, the extension of the results provided a quite different prediction. We observed that institutional determinant's impact has changed over time. The study also discusses conclusive remarks of research and future directions for scholars and policymakers.*

Keywords: *Institutional configurations; institutional voids; social entrepreneurship; institutional theory; replication; results reproducibility; results extension.*

5.1 Introduction

SE has been identified as a significant force and a newly developing indication of cultural norms (Weerawardena & Mort, 2006). Many academics have looked into the variables that can affect social entrepreneurial activities. Hörisch et al. (2017) claim that entrepreneurship is more likely to flourish in countries with a flexible tax approach, government support, business-friendly legislation, less environmental pressure, and post-materialist attitudes. According to Zhao and Lounsbury (2016), SE sponsorship is supported by the provision of a simple financial getaway with a reduced religious duty. Peredo and McLean (2006) argued that SE was supported as an idealization of societal ideals solely, as well as by the originality of the plan, the identification of a good opportunity, the level of risk-taking, and the commitment of resources to the project. As a result, determinants both internal and external to the individual have an impact on the participation in social entrepreneurial activities. Existing literature highlights both individual qualities and internal and external determinants that influence the willingness of society to engage in SE.

The research studies considered it essential to keep in mind the peculiarities of people who desire to engage in SE. Hockerts (2017) addressed this issue in their study and found that the intention of individuals is the key determinant of whether they will invest in non-profit activities. These intentions are frequently influenced by empathy, moral obligation, self-efficacy, perceived social support, and personal experience. Furthermore, it is clear from the literature on SE that research with personalized perspectives and studies based on external pressures have substantial empirical findings. For instance, the Global Entrepreneurship Monitor Database (2009, 2015), which focuses solely on the subject of SE, collects information from individual respondents and publishes specialized reports that include substantial empirical data supporting participation in social entrepreneurial activities. GEM (2015) conducts

empirical research on a wide range of variables and important determinants that directly affect SE.

Stephan et al. (2015) identified several forces, including government activism, post-materialism, and SSC, that have an impact on the decision of people to engage in SE in one of their key research projects. Individual-level datasets from the Global Entrepreneurship Monitor (2009) as well as country-level datasets from additional sources were used in the study done by Stephan et al. (2015). Replication studies have proven challenging for researchers to do when the dataset and technique are not readily available. Researchers don't attempt to replicate these studies to test the reliability of published research. Replication of previously published work has thus continued to be an underutilized option for scholars. This is the scenario because, particularly in the field of social and management science, researchers tend to use more narrative-based and original methodologies (Singh et al., 2003; Tsang & Kwan, 1999). We have observed that Stephan et al. (2015) work is important and offers simple access to the relevant datasets. Given the significance of the field of SE and the requirement for regular publication of replication research, we attempt to replicate an empirical study with an SE theme to counter the tendency toward conducting replication studies.

Since it is critical to encourage replication of existing work in the field of SE, we identify this research gap in the existing literature. In doing so, we reviewed the body of prior research and discovered that the work by Stephan et al. (2015) offers a substantial window of opportunity for a replication study. Our only goal is to confirm the conclusions offered by Stephan et al. (2015) and apply them to a more recent dataset that was released at a different period. The lack of data on these explored correlations and the difficulty in reproducing results (Hubbard et al., 1998) are our primary reasons for replicating the study of Stephan et al. (2015). To undertake a replication study and take into account the literature gap, we have developed the following research questions, which are listed below,

RQ5.1: *What are the literal replication findings of Stephan et al.'s (2015) study?*

RQ5.2: *What is the finding of the extension of Stephan et al.'s (2015) study?*

RQ5.3: *How are literal and constructive replications by Stephan et al. (2015) justified?*

Regardless of this, the current study seeks to address two research gaps that have been identified with the aid of previously published text. The work by Stephan et al. (2015), which included a dataset of 106484 people from 26 different countries and was published in 2009, was first replicated by us. Exploring this research void will help us in our effort to promote the repeatability of outcomes that have already been published. Second, we want to test the findings using the dataset of 73,833 people from 20 different nations published in 2015 rather than just replicating Stephan et al. (2015) findings. Thus, we can demonstrate whether the same discoveries may be expanded upon.

This investigation is important to demonstrate the reliability of contemporary data and figures. First and foremost, we believe that SE is a field of study that has received significant attention and is continuing to grow. Therefore, it will be worthwhile to look at important variables that directly influence social entrepreneurial activity. Additionally, we produced a literal and constructive replication study to aid researchers and provide a concrete example of how to conduct a replication study using readily available datasets and transparent methodology. The definition of a literal replication study uses the same dataset, research design, and conception as the original study. Transparency of data and facts is necessary to successfully duplicate a scientific investigation.

Likewise, it facilitates more comprehensible practical implications of research for practitioners. We successfully replicated the previous findings, demonstrating the reliability of the findings. When the model was applied to the new dataset, we did detect a few slight deviations in the results. The sections of the current study are as follows: We call attention to

previous research and theories in section 5.2. We reviewed theories based on these relationships and discussed how SE relates to formal and informal institutional configurations. The methodology of our replication study and extension of results were briefly introduced and clarified in section 5.3. The findings are illustrated in Section 5.4. We examine the findings and the future direction of the study in section 5.5. The study's conclusion is discussed in Section 5.6.

5.2 Literature review and hypotheses

5.2.1 Social Entrepreneurship

A significant study by Stephan et al. (2015) showed the impact of specific formal/informal institutional configurations and voids on a person's involvement in social entrepreneurial activities. Their research goal was to look through published archives and answer challenging conclusions. Therefore, to confirm results, they must be re-generalized. The ability of SE to develop social charisma, dedication, persuasion of novelty, and initiatives of social well-being without taking risk factors into account has made it stand out (Dees, 1998; Drucker, 1985). Social assistance, such as governmental support, the social privilege of values, legal advantages, and unique elements specific to its genre, are all connected to SE.

The study conducted by Stephan et al. (2015) exhibits strong arguments in support of institutional theory. According to Sullivan et al. (2003), social entrepreneurs addressed the elements of risk tolerance prominently along with commercial intentions, management density, and enthusiasm to excel in social values in business. This was based on the explanations of several scholars (Gartner, 1988; Mintzberg, 1991; Singh, 2001). Pomerantz (2003) defined SE as the growth of innovative, social mission, earned revenue, employment creation, or licensing. Individual social entrepreneurs and nonprofit organizations engage in low-profit activities as part of their business ventures. To establish a clear connection between SE and institutions, SE

as a phenomenon activity is researched and explored using several determinants. In the parts that follow, we'll make an effort to summarize the logic surrounding the relationship between institutional arrangements, voids, and SE, as examined by Stephan et al. (2015). The hypotheses that they came up with are shown in Table 5.1.

5.2.2 Government activism and Social Entrepreneurship

Government activism is the organization of incentives based on economic planning, equal distribution of income, tax laws, government support, and a loose approach to the financial system (McMullen et al., 2008; Aidis et al., 2012; Santos, 2012). People are thought to be reluctant to engage in economic operations, especially social ones, because of the absence of incentives brought on by corruption, unfair revenue distribution, rigid regulatory requirements, and complex fiscal architecture (Acemoglu & Johnson, 2005). The relationship between government activism and SE as an institutional configuration was one of the important relationships that Stephan et al. (2015) study looked into. They claimed that the promotion of SE throughout the nation is positively correlated with government activism. They argued that national government involvement could influence the attitudes of people toward SE. As a result, they looked into another facet of government activism, the detrimental influence it has on people's decisions to participate less in SE activities.

In summary, Stephan et al. (2015) found that government activism has a mixed impact on the decisions of people to participate in SE in the nation. Similar to this, Santos and Eisenhardt (2009) argued that people are hesitant to adopt value orientation because they are afraid of failing without help from the state. Scholars, however, favored giving citizens access to financial and environmental proposals. The positive involvement provided by officials showed a higher impact on the behavior of individuals to adopt SE as a professional preference (Marcuello, 1998; Saxton & Benson, 2005; Meyskens et al., 2010a). A clear factor in

promoting the ecosystem of social entrepreneurial activity is financial assistance. As a result, we suggest revisiting this crucial association by generating new data from the present study.

5.2.3 Post-materialism and Social Entrepreneurship

Those with high social standing frequently decide against pursuing their vocation due to the deteriorated state of the community (Uhlaner & Thurik, 2010). People who have a strong sense of empathy and a non-materialistic outlook are thought to exhibit post-materialistic behavior. The importance of post-materialism as a pillar supporting SE has been highlighted and studied by scholars in earlier publications (Bekkers, 2005; Wilson, 2005; Franzen & Meyer, 2010). The economy is shaped toward greater socially responsible behavior and the preponderance of SE follows the institutional theory, which is supported by these dynamic pillars (Peng & Chen, 2011; Pathak & Muralidharan, 2016).

Thus, the investigation and discovery of a strong collaborative relationship between post-materialism and the potential for an individual's engagement in SE was the second significant contribution made by the study of Stephan et al. (2015). They looked at the hypothesis that a country will favor SE as its preferred line of work for income if its citizens exhibit high empathy for social advantages on an equal footing for others. In line with this, academics make the case that post-materialism and government activism share a significant mechanism (Stephan et al., 2015). People typically choose SE when their motivation is based on their internal social urges rather than merely on external influences (Brooks & Manza, 1994). External factors can also motivate people domestically, such as when authorities give a flexible activist environment. The study by Stephan et al. (2015) also investigated the conflicting influence of post-materialism as a mediator on government activism and SE. They claimed that the country's high SE was mostly caused by the predominance of high post-materialistic conduct and low government activism as void. By using an updated dataset and replicating their data, we are retesting their theory.

Table 5.1: Hypothesis and results

	Original hypothesis	Stephan et al. (2015)	Literal replication	Constructive extension
H1a:	Government activism (-) Engagement in social entrepreneurship	*Not supported*	*Not supported*	*Not supported*
H1b:	Government activism (+) Engagement in social entrepreneurship	*Supported*	*Supported*	*Partially Supported*
H2:	Post-materialism (+) Engagement in social entrepreneurship	*Supported*	*Supported*	*Supported*
H3:	Government activism × Post materialism (-) Engagement in social entrepreneurship	*Partially Supported*	*Partially Supported*	*Partially supported*
H4:	Socially supportive cultural norms (+) Engagement in social entrepreneurship	*Supported*	*Supported*	*Partially supported*
H5:	Government activism × Socially supportive cultural norms (+) Engagement in social entrepreneurship	*Supported*	*Supported*	*Partially supported*

5.2.4 Socially supportive cultural norms and Social Entrepreneurship

According to Deng et al. (2019), institutional theory defends and supports every formal and informal institutional element. SSC replaces extremely supportive peer conduct in society as shared social standards, caring behavior toward others, learning from collective empathy and collective efforts, and counterparts as another key informal institutional force (Westlund & Adam, 2010). The remarkable consistency of SSC amid increasing SE has already been investigated in previous literature (Di Domenico et al., 2010; Anggadwita et al., 2017; Bhatt, Qureshi, & Riaz, 2019). In an additional effort, Stephan et al. (2015) looked into the favorable correlation between SSC and a person's participation in SE activities nationwide.

Additionally, they reaffirmed the link between participation in SE and societal morality and the adoption of compassionate behavior of others. Similarly, using government activism as a primary motivator has shown to be a source of high moral conduct since individuals find it flexible and less hazardous to participate in social enterprises that do not even make a lot of money (Lee et al., 2022). As a result, Stephan et al. (2015) completed another study using SSC as a mediator, this time looking at how high levels of government involvement affect how SE with high SSC behave. In the course of our replication investigation, we reevaluated this phenomenon. All of the assumptions are shown in Figure 5.1. This study examined the precise hypotheses of the replicated study and also applied the same hypotheses to the newly updated dataset to determine whether or not the effects were the same.

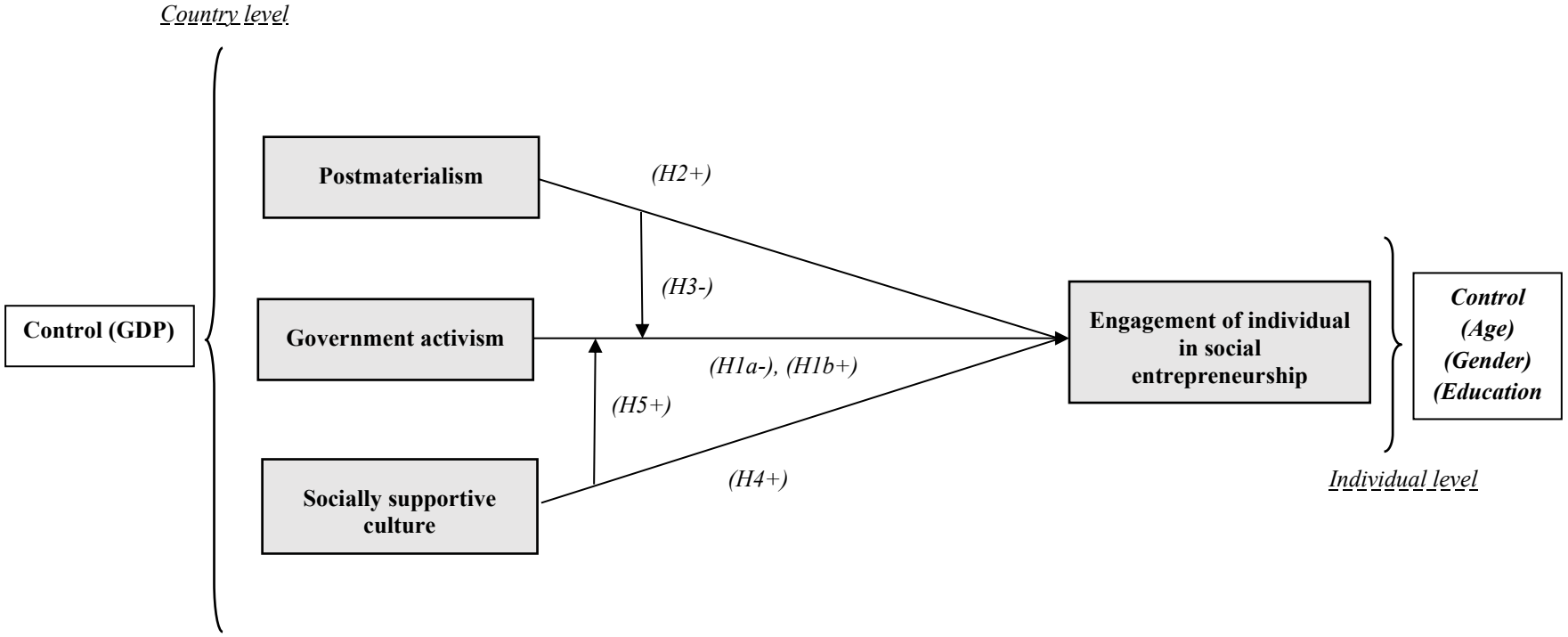


Figure 5.1: Theoretical model (Stephan et al. 2015)[4]

[4] Theoretical model has been replicated from Stephan et al. (2015). This is the main model of the Replicated Study; no change was made in the model in our replication study.

5.3 Methodology

We started our investigation by specifying the type of replication study that was required to draw a systematic direction for the technique. Therefore, the primary goal of the study is to replicate the conclusions made by Stephan et al. (2015) and to apply those conclusions to a new dataset released at a later time. Replication studies come in a variety of categories that researchers have characterized (Tsang & Kwan, 1999; Lykken, 1968; Kelly, Chase, & Tucker, 1979; Stroebe & Strack, 2014). After considering the many definitions offered, it should be noted that our replication is literal (also known as exact or direct), and the extension of the study is based on a framework for constructive replication studies. The identical model, sample, and procedures are used in the replication, demonstrating how directly the repeated study was carried out.

The notion of transparency and the potential for repeatability of the replicated study is supported in this study by literal replication. Additionally, it enables us to broaden the conclusions of the replicated study. The study is being extended through a supportive replication study, as was previously indicated. Constructive replication studies are used to enhance the work done in previously published research by incorporating a few additional scenarios while keeping the others mostly identical (Stroebe & Strack, 2014). To test the theory in a different set of circumstances and support previous findings, constructive replication studies introduce novel metrics, methodologies, or datasets (Köhler & Cortina, 2019). To do so, we have repeated the findings on a new dataset published in 2015 with the same model and the same procedure.

5.3.1 Literal Replication Study

In this replication study, we followed the criteria and sample procedure as conducted by Stephan et al. (2015), which is explained below,

a) Sample

Stephan et al. (2015) used a multilevel strategy to examine their model. They gathered their information from several archival data sources. They included individual (level 1) data nested within countries because their data is multidimensional (level 2). The study's individual-level data came from the Global Entrepreneurship Monitor (GEM, 2009; Global Entrepreneurship Research Association, 2013; Lepoutre et al., 2013; Terjesen et al., 2012). Moreover, between 1995 and 2008, they gathered data at the country level from multiple sources. Economic Freedom (2008), World Values Survey (WVS, 2005–2008), Globe Project (Global Culture Practice Data, 2004), and World Bank were used to gather data on country-level variables (2008). Data from GEM (2009) contain about 150,000 observations that are nested among 49 nations.

b) Variables and measures

Engagement in social entrepreneurial activities: GEM (2009) gives a variety of survey questions on the issue of SE; we coded the dependent variable as a binary variable following the requirements as stated by Stephan et al. (2015). First, we followed their methods to code individual-level dependent variables of engagement in the SE (2015). If a person matched the requirements to be classified as a nascent or operating social entrepreneur, they were coded as "1," otherwise as "0".

Government activism: Following the methods described by Aidis et al. (2012), Stephan et al. (2015) recovered government activism as a country-level independent variable (2012). That was based on average country rankings for "government size" and "fiscal independence," two variables that can be found in the Index of Economic Freedom (Heritage Foundation,

2010). By Stephan et al., we estimated the values of government activism at the national level (2015).[5]

Post-materialism: To measure post-materialism 4-item version of the post-materialism index developed by Inglehart (1997) was used. For this, data was calculated from two waves 1999–2002 and 2005–2008 from the World Value Survey.[6]

Social supportive cultural norms: To measure SSC data from the GLOBE cultural practices from 1995 to 1997 has been collected.[7] To measure this variable the average score of two dimensions; humane orientation and assertiveness has been calculated which is validated by Stephan and Uhlaner (2010).[8]

Gender: Individual-level control variables have been derived from the GEM dataset which has the same criteria as the 2009 dataset. GEM (2009) provides us with the gender of the individuals, in this study males are coded as '1' and females are coded as '0'.

Age: The GEM dataset collects the age of respondents in the following sequence: 18–24, 25–34, 35–44, 45–54, and 55–64. We gathered data on age as explained in the GEM (2009) dataset.

Education: Scholars feel that demographic indicators have a significant impact on the association between variables, and GEM (2009) includes information on respondents' educational attainment (Terpstra et al., 1993). Thus, we categorized the respondents' education level as follows: pre-primary = 0, primary/first stage basic education = 1, lower secondary/second stage basic education = 2, upper secondary = 3, post-secondary, non-tertiary education = 4, first stage of tertiary education = 5 and second stage of tertiary education = 6.

[5] Values of government activism can be found in Table 1 of Stephan et al. (2015) study.
[6] Values of postmaterialism are the average rate of two waves, calculation criteria can be found in Appendix B of Stephan et al. (2015) study.
[7] SSC is an index developed through GLOBE project survey by House et al. (2004) on samples of 17,370 middle managers from 951 local companies in three industrial sectors.
[8] Values of SSD can be found in Appendix B of Stephan et al. (2015) study.

National wealth (GDP): In line with the replicated study, we implied GDP as a country-level control variable. To measure GDP, we used the 2008 GDP per capita in purchasing power standards stated in millions of international dollars (World Bank, 2012).

5.3.2 Constructive Replication Study

To extend the study, we employed the criteria and sample procedure as conducted by Stephan et al. (2015) on a newly updated dataset which is explained below.

a) Sample

We expanded on the research conducted by Stephan et al. (2015) using the newly released GEM dataset of version 2015, which was published in February (2019) as a special topic of SE (Bosma et al., 2013; Kelley, Singer & Herrington, 2016). There are 181281 observations in this dataset, distributed among 60 nations. The study's extension was also a multilevel study in which level 1 data on an individual is nested inside countries (level 2). On a new country-level variable dataset, we applied the same methodology as well. From 2005 to 2014, we gathered data at the national level from a variety of sources. We gathered up-to-date information on country-level variables from the World Values Survey (WVS, 2010–2014), the Globe Project (Global Culture Practice Data, 2004), and the World Bank (2014).

b) Variables and measures

Engagement in social entrepreneurial activities: Similar criteria have been implemented on the GEM (2015) dataset. This data has the same survey questions as a special topic issue. We coded an individual as '1' if it fulfills the criteria explained in the flow chart presented by Stephan et al. (2015) and '0' otherwise. To do so, we retrieved the same survey questions that matched the survey questions as in the GEM (2009) dataset to code individual-level dependent variables. GEM (2015) consists of survey questions like 'Are you, alone or

with others, currently trying to start or currently leading any kind of activity that has a social, environmental, or community objective?'. Based on these survey questions
and following the criteria of Stephan et al. (2015) we conducted the coding of the dependent variable for extension of results.

Government activism: We retrieved government activism as country level independent variable following the methodology proposed by Aidis et al. (2012), which was based on mean country scores for "fiscal freedom" and "government size", these indicators are available in Index of Economic Freedom" (Heritage Foundation, 2014). It is a more recent and updated version of the data.

Postmaterialism: To measure postmaterialism 4-item version of the postmaterialism index developed by Inglehart (1997) was used. Data from two waves 2005–2008 and 2010-2014 of the World Value Survey (WVS, 2014) have been availed. The variable calculation is the same but the dataset is more recent and updated.

Social supportive cultural norms: To measure other independent country-level variables, we used the same measure as used by Stephan et al. (2015) since GLOBE cultural practice has not updated the dataset. Thus, we implemented the same SSC data from GLOBE cultural practices (2004).

Gender: Individual-level control variables have been derived from the updated GEM dataset which also provides demographic variables. GEM (2015) provides us with the gender of the individuals, which in this study is coded as follows; males as '1' and females as '0'.

Age: Similarly, the next individual-level control variable is age. The GEM dataset collects the age of respondents in the following sequence: 18–24, 25–34, 35–44, 45–54, and 55–64. We gathered data on age as explained in the GEM (2015) dataset.

Education: GEM (2015) also provides updated data on the education level of respondents which is another individual-level control variable. Thus, we categorized the

respondents' education level as follows: pre-primary= 0, primary/first stage basic education = 1, lower secondary/second stage basic education = 2, upper secondary = 3, post-secondary, non-tertiary education = 4, first stage of tertiary education = 5, and second stage of tertiary education = 6.

National wealth (GDP): For our extension study, we used GDP as a country-level control variable. To measure GDP, we used 2014 GDP per capita in purchasing power standards stated in millions of international dollars (World Bank, 2014).

5.3.3 Final dataset

A literal replication: We must deal with missing values when coding the individual-level dependent variable, just like Stephan et al. (2015) undertook. Demographic control variables at the person level contained the majority of the missing values. Due to this, we also need to exclude any nations that were either excluded from the country-level dataset or the individual-level dataset. We eliminated a total of 23 countries from the sample to attain the same countries in both individual-level data and country-level data. Similar to the sample determined by Stephan et al., the aggregate final sample for replication consisted of 106,484 individuals distributed across 26 nations (2015).

A constructive replication: We eliminated any missing values from individual-level data for the extended sample, especially those that appeared in the age, gender, and education variables. If any value was missing or did not meet the criteria outlined in the study by Stephan et al., we also removed the values from a coding individual-level dependent variable (2015). Four nations are missing from the GEM (2015) dataset when compared to the sample in the study by Stephan et al. (2015). Consequently, 74,833 people from 20 different nations make up our overall extension sample. Along with the SE ratio for each nation, Table 5.2 also provides descriptive data for the individual-level controls of age, gender, and education.

5.3.4 Data analysis

Following Stephan et al. (2015), we used R (R foundation, 2019) to perform multilevel logistic regression with the Laplace approximation on our SE variable as a coded binary variable. The independent variables at the national level were standardized based on mean and standard deviation, and the independent variables at the individual level were standardized using grand mean (Raudenbush & Bryk, 2002). We ran the variance inflation factor (VIF) and the condition index statistic (CIS) test to check multicollinearity as stated in Table 5.3. Based on multicollinearity statistics VIF scores were <10 and the CIS <30 in both our samples (Hair et al., 1998). With all of the control variables and all three independent variables present in the model, we ran the first test for main effects (Hypotheses 1a, 1b, 2, and 4) without including any interaction terms. We independently ran the regression analysis to check for interaction effects (Hypotheses 3 and 5). According to Hox (2010), each model provides the output of estimated regression coefficients B, deviance, likelihood ratio, and pseudo R2 to assess if it has considerably improved over the previous model.

5.4 Findings

The variable correlation coefficients at the individual and national levels are shown in Tables 5.4 and 5.5, respectively. First, we looked at the main effects of the variables, taking into account all the independent variables, country-level control variables, and individual-level control variables. Then, to ascertain the unique association of each independent variable with each other, we conducted a multilevel regression analysis. Last but not least, we looked for an interaction impact between variables.

Table 5.2: Country-level descriptive statistics

`	Stephan et al. (2015)					Literal replication				
Country	**N[a]**	**SE %**	**Age**	**% Male**	**Education**	**N[a]**	**SE %**	**Age**	**% Male**	**Education**
Argentina	1674	8.06	3.05	41.34	3.14	1674	8.30	3.05	41.34	3.14
Brazil	2000	0.50	2.75	48.90	2.42	2000	0.50	2.75	48.90	2.42
China	3405	1.62	2.96	48.08	2.71	3405	1.62	2.96	48.08	2.71
Colombia	2031	1.48	2.87	49.14	3.08	2031	1.96	2.87	49.14	3.08
Denmark	1999	12.16	3.55	46.07	3.77	1999	12.16	3.55	46.07	3.77
Finland	1988	4.38	3.20	50.40	3.48	1988	4.38	3.20	50.40	3.48
France	1623	2.16	3.12	48.98	3.11	1623	2.16	3.12	48.98	3.11
Germany	5865	1.14	3.22	50.88	3.59	5865	1.14	3.22	50.88	3.59
Greece	1970	1.88	3.30	48.63	3.49	1970	1.83	3.30	48.63	3.49
Guatemala	2148	0.14	2.65	44.55	1.64	2148	0.14	2.65	44.55	1.64
Hungary	1964	1.22	2.99	50.41	2.96	1964	1.22	2.99	50.41	2.96
Iran	3130	0.89	2.58	54.06	2.71	3130	0.89	2.58	54.06	2.71
Israel	1832	2.84	2.87	41.87	3.76	1832	2.67	2.87	41.87	3.76
Italy	2930	0.92	3.42	49.86	3.01	2930	0.95	3.42	49.86	3.01
Malaysia	1975	0.20	3.30	61.42	2.61	1975	0.20	3.30	61.42	2.61
Morocco	1498	0.67	2.57	50.00	1.46	1498	0.67	2.57	50.00	1.46
Netherlands	2126	1.60	3.64	46.05	3.25	2126	1.60	3.64	46.05	3.25
Russia	1631	0.25	2.99	47.64	4.02	1631	0.25	2.99	47.64	4.02
Slovenia	3014	3.05	3.13	46.78	3.50	3014	3.08	3.13	46.78	3.50
South Africa	2793	1.11	2.55	48.73	2.40	2793	1.14	2.55	48.73	2.40
South Korea	1940	0.31	2.90	50.62	3.88	1940	0.31	2.90	50.62	3.88
Spain	28,632	0.56	3.39	49.39	3.13	28,632	0.55	3.39	49.39	3.13
Switzerland	1516	0.99	3.41	40.30	3.54	1516	0.99	3.41	40.30	3.54
UK	21,906	3.67	3.58	39.07	3.64	21,906	3.67	3.58	39.07	3.64
USA	3340	2.93	3.71	49.52	3.92	3340	2.90	3.71	49.52	3.92
Venezuela	1554	1.29	2.78	41.06	2.97	1554	1.29	2.78	41.06	2.97
Total/Mean	106,484	2.15	3.10	47.84	3.12	106,484	2.17	3.10	47.84	3.12
SD		2.65	0.34	4.69	0.65		2.67	0.34	4.69	0.65

[a]Each country has a slight discrepancy in the values due to the differing nature of each country while data collection.

Table 5.2: (continued)

	Stephan et al. (2015)					Constructive replication				
Country	**N[a]**	**SE %**	**Age**	**% Male**	**Education**	**N[a]**	**SE %**	**Age**	**% Male**	**Education**
Argentina	1674	8.06	3.05	41.34	3.14	2489	3.21	2.83	47.9	3.45
Brazil	2000	0.50	2.75	48.90	2,42	1999	2.15	2.80	48.9	2.40
China	3405	1.62	2.96	48.08	2.71	3248	2.65	2.98	50.1	3.14
Colombia	2031	1.48	2.87	49.14	3.08	3640	5.41	2.86	47.7	3.15
Denmark	1999	12.16	3.55	46.07	3.77	-	-	-	-	-
Finland	1988	4.38	3.20	50.40	3.48	1988	3.52	3.18	50.6	3.40
France	1623	2.16	3.12	48.98	3.11	-	-	-	-	-
Germany	5865	1.14	3.22	50.88	3.59	3713	2.10	3.33	50.4	3.66
Greece	1970	1.88	3.30	48.63	3.49	-	-	-	-	-
Guatemala	2148	0.14	2.65	44.55	1.64	2170	1.61	2.44	47.6	1.98
Hungary	1964	1.22	2.99	50.41	2.96	1974	2.89	3.22	49.3	3.31
Iran	3130	0.89	2.58	54.06	2.71	3186	0.41	2.61	51.9	3.40
Israel	1832	2.84	2.87	41.87	3.76	-	-	-	-	-
Italy	2930	0.92	3.42	49.86	3.01	1990	4.37	3.27	49.2	2.84
Malaysia	1975	0.20	3.30	61.42	2.61	2000	1.40	2.78	53.6	2.85
Morocco	1498	0.67	2.57	50.00	1.46	1780	0.62	2.54	52.4	2.04
Netherlands	2126	1.60	3.64	46.05	3.25	1740	2.99	3.19	50.5	2.45
Russia	1631	0.25	2.99	47.64	4.02	-	-	-	-	-
Slovenia	3014	3.05	3.13	46.78	3.50	1979	3.49	3.25	51.1	3.47
South Africa	2793	1.11	2.55	48.73	2.40	2735	2.56	2.80	49.0	2.67
South Korea	1940	0.31	2.90	50.62	3.88	1937	1.24	3.14	50.8	3.02
Spain	28,632	0.56	3.39	49.39	3.13	23923	0.69	3.23	50.3	2.67
Switzerland	1516	0.99	3.41	40.30	3.54	1866	4.34	3.17	50.4	3.67
UK	21,906	3.67	3.58	39.07	3.64	7828	4.13	3.06	48.6	3.49
USA	3340	2.93	3.71	49.52	3.92	2648	8.42	3.13	50.1	4.12
Venezuela	1554	1.29	2.78	41.06	2.97	-	-	-	-	-
Total/Mean	106,484	2.15	3.10	47.84	3.12	74,833	2.91	3.06	49.98	3.01
SD		2.65	0.34	4.69	0.65		1.89	0.27	5.00	0.57

[a]Each country has a slight discrepancy in the values due to the differing nature of each country while data collection.

Table 5.3: Multicollinearity tests

Dependent variable (SE)	Stephan et al. (2015)	Literal replication	Constructive replication
	VIF[b]	VIF[b]	VIF[b]
Government activism	2.078	2.370	2.710
Postmaterialism	1.645	1.740	1.660
Socially supportive cultural norms	1.263	1.360	1.520
GDP	3.148	3.170	3.370

[b]VIF= Variance inflation factors.

5.4.1 Literal Replication

The correlation coefficients are shown in Tables 5.4 and 5.5. Findings show that only government activism positively correlates with an individual's engagement in SE, whereas individual-level factors like age, gender, and education have a positive significant association with the activities of SE. All other institutional characteristics are positively related to SE activities, but the relationship is not as strong. The exact replication of the regression analysis is presented in Table 5.6. The findings in Table 5.6 are consistent with the research by Stephan et al (2015). These results indicated that the main effect of the model is having a statistically significant relationship. In the main effect model, we included all individual-level, country-level variables and all three independent variables. We found that gender, education, government activism, post-materialism, and SSC have a positive significant effect on an individual's preference to indulge in SE activities. These empirical findings support H1b, H2, and H4. However, we found that age is less significant, whereas GDP and age square have negative significance on SE activities, and government activism is positively associated with SE activities. Therefore, statistical results do not provide stronger support for H1a. When we tested the country-level independent variables, it had a significant association with SE.

Table 5.4: Individual-level correlations coefficient (Dependent variable is Social Entrepreneurship)

	Stephan et al. (2015)			**Literal replication**			**Constructive replication**		
Variables	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
(1) Social entrepreneurship (SE)	1			1			1		
(2) Age (1 – lowest to 5 – highest)	0.016***	1		0.011***	1		0.015***	1	
(3) Gender (0 – female, 1 – male)	0.021***	-0.004**	1	0.018***	-0.015**	1	0.009***	-0.016**	1
(4) Education (0 – lowest to 6 – highest)	0.079***	-0.052***	0.007*	0.082***	-0.087***	0.019**	0.095***	-0.111**	0.025**

*Note: n=106484, n=74,833, p<0.10; *p<0.05; **p<0.01; ***p<0.001 (two-tailed)*

Table 5.5: Country-level correlations coefficient (Dependent variable is Social Entrepreneurship)

	Stephan et al. (2015)				**Literal replication**				**Constructive replication**			
	1	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
(1) Social entrepreneurship (SE)	1				1				1			
(2) Government activism	0.442*	1			0.429*	1			0.371**	1		
(3) Post materialism	0.325	0.429*	1		0.338	0.432**	1		0.405	0.411*	1	
(4) Socially supportive	0.251	-0.342	-0.268	1	0.250	-0.342	-0.264	1	0.060	-0.502	-0.238	1
(5) GDP	0.296	0.688***	0.612***	-0.322	0.282	0.688***	0.622***	-0.321	0.347	0.662***	0.648***	-0.398

*Note: n=26, n=20, p<0.10; *p<0.05; **p<0.01; ***p<0.001 (two-tailed).*

We also found the same results as Stephan et al. (2015) supported the relationship in their study analysis. While analyzing the moderation effect, we found that the interaction term between government activism and post-materialism showed a statistically negative effect on SE activities, which did not support H3 entirely. This indicates that national-level post-materialism as an interaction term with government activism is not as strongly impactful as it has been hypothesized. However, the test of an interaction term between government activism and SSC indicated positive low significance on SE activities, which fully supports H5 in the model. This ensures our findings are in line with Stephan et al. (2015) that the combinative association of government activism and SSC have an interactive effect on SE.

5.4.2 Constructive Replication

In the extension, we reproduced the original analysis on the same type of variables on a different dataset which is from GEM (2015). Tables 5.4 and 5.5 also indicate the correlation coefficient of our constructive study. Results indicate that our extension has a similar correlation of individual level and country level with SE as a literal replication of Stephan et al. (2015). Table 5.6 reports the extended results, we found age has a statistically positive high impact along gender and education on SE activities. The only difference we assume from our results is that age is significantly associated with SE which is not the case in literal replication. Whereas, age square and GDP are not significant as reported by Stephan et al. (2015). Regression analysis of independent variables in the main effect model showed that government activism does not provide a significant impact on SE activities that do not support H1b. These statistics decline support for H1a as government activism has a positive coefficient but has no significance. Contrary to the results of replicated and replication studies, post-materialism demonstrates a positive but less statistically significant effect on SE activities, whereas SSC shows a positive relation but no significant effect in association with SE.

Table 5.6: Effects of institutions on individual engagement in SE (Regression coefficients (B)

	Main results					
	Controls			Main effects		
	Stephan et al. (2015)	**Literal replication**	**Constructive replication**	**Stephan et al. (2015)**	**Literal replication**	**Constructive replication**
Fixed effects						
Intercept	-4.35***	-4.26***	-3.81***	-4.35***	-4.28***	-3.89***
Level 1 (controls)						
Age	0.03	0.03	0.14***	0.03	0.03	0.14***
Age-squared	-0.07**	-0.07**	-0.03	-0.07**	-0.07**	-0.03
Gender	0.17***	0.18***	0.08**	0.17***	0.18***	0.08**
Education	0.59***	0.59***	0.59***	0.59***	0.59***	0.59***
Level 2 (controls)						
GDP	0.25	0.18	0.21	-0.43!	-0.37!	-0.12
Level 2 (predictors)						
Government activism (GA)				0.64**	0.49***	0.22
Post materialism (PM)				0.52**	0.47***	0.38*
Socially supportive cultural norms (SSC)				0.29!	0.26!	0.22
Interaction GA∗PM						
Interaction GA∗SSC						
Random effects and model fit						
Deviance (−2 log-likelihood)	18,484	18,506	15,450	18,470	18,498	15,449
Degrees of freedom (df)	7	7	7	10	10	10
Pseudo-R2	0.19	0.18	0.10	0.35	0.19	0.17

*N=106484, N=74,833, !p<0.10; *p<0.05; **p<0.01; ***p<0.001 (two-tailed)*

Table 5.6: (continued)

	Main results					
	Main + GA*PM interaction			Main GA*SSC interaction		
	Stephan et al. (2015)	**Literal replication**	**Constructive replication**	**Stephan et al. (2015)**	**Literal replication**	**Constructive replication**
Fixed effects						
Intercept	-4.09***	-4.15***	-3.82***	-4.25***	-4.28***	-3.86***
Level 1 (controls)						
Age	0.03	0.03	0.14***	0.03	0.03	0.14***
Age-squared	-0.07**	-0.07**	-0.03	-0.07**	-0.07**	-0.03
Gender	0.17***	0.18***	0.08**	0.17***	0.18***	0.08**
Education	0.59***	0.59***	0.59***	0.59***	0.59***	0.59***
Level 2 (controls)						
GDP	-0.39*	-0.39*	-0.09	-0.44*	-0.32*	-0.08
Level 2 (predictors)						
Government activism (GA)	0.68***	0.38**	0.17	0.52**	0.38*	0.15
Post materialism (PM)	0.46**	0.30*	0.34*	0.46*	0.40*	0.37*
Socially supportive cultural norms (SSC)	0.50***	0.47***	0.29*	0.19	0.53**	0.34*
Interaction GA∗PM	-0.62***	-0.47***	-0.21!			
Interaction GA∗SSC				0.28!	0.33*	0.21
Random effects and model fit						
Deviance (−2 log-likelihood)	18,459	18,487	15,449	18,466	18,496	15.449
Degrees of freedom (df)	11	11	11	11	11	11
Pseudo-R2	0.17	0.19	0.18	0.06	0.02	0.02

*N=106484, N=74,833, !p<0.10; *p<0.05; **p<0.01; ***p<0.001 (two-tailed)*

Table 5.6: (continued)

	Main results					
	Main + Both interaction			Control + GA only		
	Stephan et al. (2015)	**Literal replication**	**Constructive replication**	**Stephan et al. (2015)**	**Literal replication**	**Constructive replication**
Fixed effects						
Intercept	-4.07***	-4.16***	-3.86***	-4.35***	-4.27***	-3.80***
Level 1 (controls)						
Age	0.03	0.03	0.14***	0.03	0.03	0.14***
Age-squared	-0.07**	-0.07**	-0.03	-0.07**	-0.07**	-0.05
Gender	0.17***	0.18***	0.08**	0.17***	0.18***	0.08**
Education	0.59***	0.59***	0.59***	0.59***	0.59***	0.59***
Level 2 (controls)						
GDP	-0.40*	-0.38*	-0.07	-0.15	-0.19	-0.14
Level 2 (predictors)						
Government activism (GA)	0.62***	0.37**	0.14	0.58*	0.48*	0.09
Post materialism (PM)	0.44**	0.30*	0.34*			
Socially supportive cultural norms (SSC)	0.43**	0.50**	0.35*			
Interaction GA∗PM	-0.56**	-0.44**	-0.15			
Interaction GA∗SSC	0.14	0.05	0.13			
Random effects and model fit						
Deviance (−2 log-likelihood)	18,458	18,489	15,450	18,478	18,503	15,452
Degrees of freedom (df)	12	12	12	8	8	8
Pseudo-R2	0.18	0.19	0.18	0.15	0.10	0.11

*N=106484, N=74,833, !p<0.10; *p<0.05; **p<0.01; ***p<0.001 (two-tailed)*

Table 5.6: (continued)

	Main results					
	Control + PM only			Control + SSC only		
	Stephan et al. (2015)	**Literal replication**	**Constructive replication**	**Stephan et al. (2015)**	**Literal replication**	**Constructive replication**
Fixed effects						
Intercept	-4.35***	-4.19***	-3.82***	-4.34***	-4.30***	-3.84***
Level 1 (controls)						
Age	0.03	0.03	0.14***	0.03	0.03	0.14***
Age-squared	-0.07**	-0.07**	-0.03	-0.07**	-0.07**	-0.03
Gender	0.17***	0.18***	0.08**	0.17***	0.18***	0.08***
Education	0.59***	0.59***	0.59***	0.59***	0.59***	0.59***
Level 2 (controls)						
GDP	-0.05	-0.06	-0.03	0.030	0.22	0.24!
Level 2 (predictors)						
Government activism (GA)						
Post materialism (PM)	0.49**	0.46**	0.32*			
Socially supportive cultural norms (SSC)				0.16	0.14	0.11
Interaction GA∗PM						
Interaction GA∗SSC						
Random effects and model fit						
Deviance (−2 log-likelihood)	18,479	18,503	15,448	18,483	18,508	15,452
Degrees of freedom (df)	8	8	8	8	8	8
Pseudo-R2	0.12	0.11	0.12	0.03	0.01	0.01

*N=106484, N=74,833, !p<0.10; *p<0.05; **p<0.01; ***p<0.001 (two-tailed)*

Hence, we found significant support for H2 whereas we could not find full support for H4. In line with the results of the replicated study, the interaction effect of government activism and post-materialism reported the variation in results. it shows the weak significance of the interaction term. Therefore, we suggest partial support for H3. Finally, the moderating effect of government activism and SSC provides a positive but no statistically significant impact on SE activities. In conclusion, we could not fully support H5.

5.5 Discussion

Overall, first, our investigation confirms the validity of the study of Stephan et al. (2015) and implies that prior findings on the dataset of 106484 people nested in 26 nations from GEM (2009) and other sources have a solid basis. Only a few numbers of studies highlighted and confirmed the link between institutional characteristics and individual SE engagement (Aidis et al., 2012; Stephan et al., 2015; Sahasranamam & Nandakumar, 2020). According to Kwon and Arenius (2010), an individual's characteristics and collective principles have an impact on SE performance on both sides, both at the national and individual levels. Their initiative and incentives are also necessary where outside assistance is needed to participate in social activities. As a result, the current study validates and supports the intentional selection of replication studies in the literature to supply the reevaluation of facts and figures offered by experts. By replicating the Stephan et al. (2015) model on their dataset, we make our first contribution to the theory that Stephan et al. (2015) tested. We replicated their dataset and discovered evidence to corroborate their conclusions.

Second, the current study supports the idea that government help and support are sources of inspiration for people to start social activity-based enterprises. Governmental consideration leads to the initiation of social activities to make money, which creates a positive perception rather than harming SE (Dacin et al., 2010; Hoogendoorn, 2016). Additionally, we discovered that post-materialistic cultural conduct in the countries enhances each person's

awareness of SE activities. Post-materialism has been endorsed in extensive literature as a controlling factor to advance SE operations (Stephan & Uhlaner, 2010; Deng et al., 2019). However, we feel that through generating replication, our study has bolstered current efforts in the literature on SE to highlight the value of well-known frameworks. By referencing the duplicate of their investigation, we strongly confirm the conclusions made by Stephan et al. (2015). Their findings show that civic engagement on the part of the government helps to advance SE. In contrast, post-materialism is necessary and a key sign that people choose SE activities. However, socially friendly cultural norms are another way to increase people's involvement in SE (Zahra et al., 2008; Dacin et al., 2011; Thornton et al., 2012; Zhao & Wry, 2016).

Our findings have also demonstrated the validity and importance of SSC, which is another component. Furthermore, our research provides evidence in favor of the hypothesis that, in the absence of government backing, altruistic and compassionate behavior turns into a dominant moderator (Stephan et al., 2015). Following Stephan et al. (2015), our study also tackles the idea that a person's decision to engage in SE activities is significantly influenced by shared cultural benevolence and sympathy as well as monetary and legal relaxation from the government. The institutional theory is supported by all of the hypotheses that were repeated in the current investigation (García-Cabrera et al., 2016).

Thirdly, we also try to extend and generalize our research conclusions. Additionally, we extrapolate conclusions from the dataset of GEM (2015), which comprised information from numerous sources and included a sample of 74,833 respondents from 20 nations. As a result, we came to several conclusions that lend to the notion that government involvement and SE activities are positively correlated. In contrast to Stephan et al. (2015), who found substantial support for these correlations, statistical data in the current study only partially supported the relationship between post-materialism and SSC with SE activities. The current study provided statistical evidence that post-materialism and public engagement can have a

small influence on SE behaviors when they function as moderating factors. The function of SSC in our study as a moderator of government activism also brings out a few results that are slightly at odds with those found by Stephan et al (2015). Extended findings confirm the SSC's role as a moderator of government activism on SE activities to some extent. While we support Stephan et al. (2015)'s findings, we were unable to fully extend the same effects to the new dataset. According to Whitley (2007), variations of the capitalist method that place a heavy emphasis on the materiality of monetary and political institutions tend to depress social activities. Since the release of Stephan et al. (2015), there has been a change in the dynamics and trending institutions for people. Promoters of social activities are generally concerned that people are abandoning self-motivated boundaries in a very capitalist economy (Amable, 2003; Hall & Soskice, 2001).

Fourth, research results published by academics need to be verified by policymakers and practitioners. Our research supports the accuracy of the data and facts presented by Stephan et al (2015). However, in extending the findings, we discovered that there was some little inconsistency in the data regarding institutional characteristics. Officials can use this as a realistic example when presenting future strategic plans to encourage people to participate in SE activities on a national scale. To create a new framework for SE operations in the nation, policymakers can benefit from the fresh perspective provided by our study.

5.6 Future directions and conclusion

In contrast to what has been asserted in earlier research, our analysis offers a comprehensive understanding of the permissive effects of institutional configuration and institutional voids on the individual's desire for SE activities. There are not many unanswered questions on this subject, as our study calls for fresh perspectives and presents an opportunity for academics to undertake future research. First, although there has not been as much encouragement for repeating published research, the importance and necessity of such

investigations have been noted by the scientific community (Kuhn, 1970; Popper, 1959; Tsang & Kwan, 1999). Replication of our findings and related research may be encouraged. Second, because our study is an identical reproduction, it will be possible to accurately recreate the results of Deng et al. (2019) study as their study can supply the necessary dataset. Third, we found slightly different outcomes in the extended version of our earlier findings, which calls into question the direction institutional theory is now taking. An analysis of these trends is necessary to confirm current institutional behavioral trends in SE activities. Additionally, a further investigation of our study could empirically take advantage of the variability of data and examine its implications for the perceptual factors that underlie entrepreneurship.

Another issue that might be raised is how deeply ingrained and connected post-materialism and cultural norms that foster social interaction are to other institutional influences. We also support experiments and survey-based research on the same variables we took into account for our study. Exploring multiple carefully crafted mythologies could make a significant contribution. For our study extension, we used an individual-level GEM (2015) dataset. The Global Preference Survey (Falk et al., 2016), which is a cross-section at the macro level and may be used and tested at numerous levels, is one example of how other researchers can use this dataset. Finally, since our study concentrated on the macro institutional influences on SE activities, further research into the micro institutional influences on SE activities would be worthwhile.

The idea of institutional perspective as a whole is primarily well suited to pursue social initiatives that excel in both institutional forces of economics and culture. However, these variables demand more work that is consistent and effective; otherwise, the efficiency of institutional determinants can degrade over time. Institutional structures and gaps are ongoing determinants that are essential to social entrepreneurial endeavors. However, current research indicates that postmaterialist and socially supportive cultural norms are less potent today than they were a few years ago. We think this study can inspire researchers to carry out replication

experiments and offer enlightening advice on how to make datasets publicly accessible. Our findings reveal disparities in the trend of elements that can influence social entrepreneurial activities, offering thoughtful inputs for business owners, academics, and policymakers. Contrary to earlier findings, the development of social entrepreneurial activity is accompanied by a decline in individual-level institutional orientation. This can be explained by the degeneration of self-motivated and culturally induced common values on an individual level. Our research adds to the body of knowledge on SE not only theoretically but also practically.

As a last point, the results of our replication analysis validate the findings of Stephan et al. (2015) by duplicating their original dataset. The new dataset was subjected to the same criteria, but we were unable to obtain encouraging results for post-materialism and socially friendly cultural norms. According to Stephan et al. (2015), institutional arrangements and institutional gaps can significantly influence people's preferences for adopting SE at the national level. The results of our empirical study are based on a GEM sample of 106484 people distributed across 26 countries (2009). Additionally, our analysis contains a sample of 74,833 people from GEM, nested in 20 different nations (2015). Our analysis indicated that Stephan et al. (2015) study did provide some solid facts and figures about the connection between institutional characteristics and an individual's preference for SE. Furthermore, our study implies that the shift in the ratio of SE causes institutional variables to be a little less of a stimulus in countries in the latter period. However, we note that these findings offer an understanding of the theoretical and practical aspects of concrete research representation.

6 Growth Ambition as consequences of Social and Traditional Entrepreneurship

Abstract: *Commercial (i.e., nonsocial) and social entrepreneurs are different. Initial qualitative research indicates that social entrepreneurs' growth ambitions are hybrid because they seek to carry out a social mission based on an economically viable company strategy. However, there is currently little proof of the existence and size of the disparities in the growth objectives of social and commercial enterprises. Using information from the 2015 Global Entrepreneurship Monitor (GEM) special issue on social entrepreneurship, we fill this critical research gap. Our multilevel studies of 12,695 entrepreneurs from 38 different countries revealed that social entrepreneurs have much higher growth ambitions than their commercial counterparts. Furthermore, we discover that this disparity is especially noticeable in nations with high Human Development Indexes (HDI). For policymakers who are interested in promoting social entrepreneurship, our findings have significant ramifications.*

Keywords: *Social entrepreneurship, growth ambitions, Global Entrepreneurship Monitor (GEM), Human Development Index (HDI), multilevel analysis.*

6.1 Overview of the growth and scaling of SE

By offering a perspective on growth in a specific setting, social or social business, this research adds to the body of literature. Scholars initially supported entrepreneurship when it came to motivation and social security (Hessels et al., 2008), strategic legal support (Levie & Autio, 2011), the advantages of market expansion (Dau & Cuervo-Cazurra, 2014), strategic personal traits, innovative diversity, and the growth process (Eide et al., 2021). According to Lall and Park (2022), financial resources and human capital are crucial to the expansion of social ventures. The data provided by earlier academics regarding elements at the individual and national levels as a mix of healthy determinants that affect the emergence of social entrepreneurship, however, is lacking. Establishing a framework to support social innovation is difficult, and much more effort needs to be made to provide the social, political, and ecological conditions necessary for the development of social entrepreneurship and social breakthroughs.

Entrepreneurs are the key players in growth, so it is up to them to communicate their objectives, plans, and motivators to determine the rate and scope of development (Wright & Stigliani, 2013; Davidsson, Achtenhagen, & Naldi, 2010). According to experts, business owners have widely varied objectives for growth (Mitchelmore & Rowley, 2013). Researchers want to know specifically how social entrepreneurs are growing effectively and what that signifies for their future direction. Entrepreneurial skill, market factors, and the existence of uncertainty are what drive expansion; there is no standard model for business growth and expansion. The amount of time an entrepreneur spends managing their firm and connecting with other business owners is one of the most significant personal elements that determine success. It is important to note that the employment rate served as a growth indicator. The majority of these definitions of growth define it as an increase in the number of people with jobs, even though growth is understood in a variety of ways.

Examining the phenomenon of company expansion from the perspective of social entrepreneurship is the primary goal of the current literature. Research on the importance of social entrepreneurial enterprise expansion is scarce. The study by Azmat et al. (2015) presented an empirical argument based on the limited literature on the subject that social ventures need to use micro facilitation from the bottom up to achieve macro growth through value creation and complicated market orientation. Many social entrepreneurs establish their companies to address market failures and major global issues that have gained more attention in the preceding decade (e.g., Austin et al., 2006; Santos, 2012; Shaw & Carter, 2007; Terjesen et al., 2016). Thus, social entrepreneurs gain from expanding entrepreneurial chances to initiate and expand their businesses, which may have a direct impact on their development. These chances are a result of policy measures that increasingly concentrate on social entrepreneurship (e.g., European Commission, 2022).

Additionally, the expansion of a social entrepreneur's endeavors frequently coincides with the desire to increase their social effect, which could speed up that growth even more. Top management team orientation was a further factor that Bojica et al. (2018) added to enhance the growth of social entrepreneurial organizations. Along with other aspects, interpersonal skills are recommended as the best pillar for the expansion of social entrepreneurial activities. The current thesis elaborates the empirical research based on the growth ambition of social entrepreneurship, taking into account prior literature and the necessity to stress the growth of social entrepreneurship. Ambitious companies and entrepreneurs strive for success and are keen to expand their operations while simultaneously making a positive social impact. Therefore, it is intriguing to research what specific factors can promote corporate growth ambitions since this not only gives existing research new direction but also raises new issues that need to be addressed. We carefully compared the situation of the state among various groupings of entrepreneurs.

6.2 Introduction of an empirical study

Social entrepreneurship has gained momentum in recent years. For this reason, a vast number of programs to foster social entrepreneurs and their social innovation emerged. For example, the EU recently announced a EUR 100 billion governmental "Employment and Social Innovation" (EaSI) program. Similarly, Google.org will invest EUR 20 million to support social entrepreneurship in Europe in 2022. Along with new support programs, numerous new stakeholders (e.g., impact investors, social impact incubators) observe the hybrid performance of social entrepreneurs and are the focus of recent research projects in the area of social entrepreneurship (e.g., Barber et al., 2021; Block et al., 2021; Hirschmann et al., 2021). In this study, we focus on the growth ambitions of for-profit social entrepreneurs, which differ from those of commercial (i.e., nonsocial) entrepreneurs (e.g., Cornelissen et al., 2021; Halberstadt et al., 2021). Social entrepreneurs pursue broader goal sets that include a social mission on top of financial goals (e.g., Battilana & Lee, 2014; Shaw & Carter, 2007). Consequently, their growth objectives are more complex than those of traditional commercial entrepreneurs, who mainly focus on financial growth (e.g., Davies et al., 2019; Siegner et al., 2018). This likely creates differences in the growth ambitions of social and commercial entrepreneurs, which remain opaque so far.

Besides differences across the groups of social and commercial entrepreneurs, prior research highlights the existence of heterogeneity within the group of social entrepreneurs. For example, social entrepreneurs differ significantly between different geographic contexts (e.g., Azmat & Samaratunge, 2009; Defourny & Nyssens, 2010a). One reason is that the impact goals of social entrepreneurs differ from countries at different levels of development (e.g., Mair & Marti, 2006). For example, while social entrepreneurs in less developed countries often aim to reduce poverty or ensure access to basic needs in their region, social entrepreneurs in more developed countries address more global social issues, such as mitigating climate change (e.g.,

Zahra et al., 2008). Other differences result from different welfare state systems, forms of capitalism, or the level of power of the nonprofit sector (e.g., Bacq & Janssen, 2011; Kibler et al., 2018). Therefore, it is likely that the growth ambitions of social entrepreneurs also differ from country to country. Our study addresses differences in the growth ambitions of social and commercial entrepreneurs and within the group of social entrepreneurs. Specifically, we examine the following, interrelated research questions: First, how do social and commercial entrepreneurs differ in their growth ambitions? Second, what influence does the country's level of development have on the growth ambitions of social entrepreneurs?

We test our hypotheses using data from the special topic on social entrepreneurship in the Global Entrepreneurship Monitor (GEM) surveys of 2015. To identify differences in development levels within a country, we combine GEM data with data on the Human Development Index (HDI). Based on this dataset, we conducted a multilevel analysis of 12,695 entrepreneurs from 38 countries. The results of our multilevel analyses show that social entrepreneurs have significantly higher growth ambitions than their commercial counterparts. This result is counterintuitive, as previous research assumed that social entrepreneurs have lower growth ambitions (e.g., Bacq et al., 2013). This is especially the case since social entrepreneurs are often compared to the nonprofit sector due to their social mission. Moreover, our moderation analysis finds that this difference is particularly pronounced in countries with a high Human Development Index (HDI). In this regard, this research study establishes the status of growth ambition of traditional and social entrepreneurship in direct association with individual-level and country-level determinants, as growth ambition of social entrepreneurship with the perspective of the development status of employed economies through the following research questions,

RQ6.1: *How do social and traditional entrepreneurs differ in their growth ambitions?*

RQ6.2: *What role does a country's level of development play in this relationship?*

Our contribution is threefold and mainly refers to emerging research streams in the field of social entrepreneurship. First, we contribute to the discussion on the differences between social and commercial entrepreneurs (e.g., Austin et al., 2006; Estrin et al., 2016). While much of the prior research analyzes the different goals of the two types (e.g., Seelos & Mair, 2005; Pathak & Muralidharan, 2016) and their effects on entrepreneurial behavior (e.g., Sahasranamam et al., 2021; Estrin et al., 2013a), we show that social and commercial entrepreneurs also differ in terms of their growth ambitions. This is important because, until now, the differences between social and commercial enterprises in terms of their growth have been vague. We encourage future research to follow up on our findings and investigate whether higher growth ambitions of social entrepreneurs also lead to higher realized growth, similar to the case of commercial entrepreneurship.

Second, we link to the still small strand of literature that examines these growth ambitions of social entrepreneurs (e.g., Vickers & Lyon, 2014; Tykkyläinen, 2019). In particular, our results contradict the initial findings of Bacq et al. (2013), who suggest that social entrepreneurs may have lower growth ambitions than commercial entrepreneurs. Since both our study and that of Bacq et al. (2013) focus on economic growth ambitions with the number of jobs created, we encourage further research to examine hybrid growth ambitions in more detail. Finally, we contribute to prior research highlighting differences in social entrepreneurship about countries' levels of development (e.g., Estrin et al., 2013b; Hidalgo et al., 2020; Nicolás et al., 2018). While our results are consistent with those of Puente et al. (2017), which show that the growth ambitions of commercial entrepreneurs increase as countries' development levels increase, we provide the first quantitative results on how

development levels affect differences in growth ambitions between the two forms of entrepreneurship. Besides, our study has important real-world implications for policymakers. Since previous research on entrepreneurial growth demonstrates that growth ambitions translate into realized growth, understanding the specifics of social enterprise growth is critical. The benefits of better understanding the growth ambitions of social entrepreneurs, for example, are that government support programs can be better aligned.

6.3 Literature review

6.3.1 Growth ambitions of start-ups

In light of the startups' significant contribution to economic development across societies, research on startup growth is plentiful (e.g., Åstebro et al., 2012; Audretsch & Keilbach, 2008; Kane, 2010). A specific area within research on startup growth addresses the ambitions of entrepreneurs to grow with their startups. This research applies various quantitative approaches to a diverse range of datasets concerning entrepreneurs' growth ambitions. Due to its comprehensive nature, the Global Entrepreneurship Monitor (GEM) is a particularly common dataset that has provided researchers with a wealth of research opportunities to study entrepreneurial growth ambitions from both individual and country perspectives and through different theoretical lenses. Table 6.1 demonstrates a summary of prior quantitative research on the growth ambitions of traditional entrepreneurs.

A vast literature strand focuses on how individual characteristics relate to growth ambitions. More specifically, this research shows that (a) demographic and personality traits (e.g., Delmar & Wiklund, 2008; Douglas, 2013; Puente et al., 2017), (b) human capital characteristics (e.g., Capelleras et al., 2019; Kolvereid, 1992), (c) personal networks (e.g., Davidsson & Honig, 2003; Efendic et al., 2015), determine the growth ambitions of entrepreneurs. Besides, research shows that several (d) country-level factors shape entrepreneurs' growth ambitions.

(a) Demographic factors, personality traits, and individual motives

First, studies focusing on the relationship between gender and growth ambitions show that men have greater growth ambitions than women (e.g., Puente et al., 2017). Besides, lower social status, higher age, and a higher level of entrepreneurial engagement are associated with lower growth ambitions, while enjoyment of work and self-confidence correspond with higher growth ambitions (e.g., Douglas, 2013, Henríquez-Daza et al. 2019; Puente et al., 2017). Inconclusive results exist regarding self-efficacy: While Douglas (2013) links higher self-efficacy with increased growth ambitions, Tominc & Rebernik (2007) do not find a significant association. Finally, quantitative empirical evidence suggests that individual motives relate to growth opportunities. For example, opportunity-driven entrepreneurs have higher growth ambitions than necessity-driven ones (e.g., Kolvereid, 1992; Puente et al., 2017). Moreover, male and female entrepreneurs differ in their growth motives (Manolova et al., 2012).

(b) Human capital

The second group of determinants that are associated with growth ambitions is human capital characteristics. While this association has received a lot of attention in prior research, the results are ambiguous. For example, Capelleras et al. (2019) show a higher level of education leads to higher growth ambitions (see also Puente et al., 2017), while a longer period of entrepreneurial experience corresponds with lower growth ambitions. These results extend initial research by Kolvereid (1992), who similarly does not find an association between entrepreneurial experience and growth ambitions. However, Kovelereid (1992) also emphasizes the importance of formal education for entrepreneurial growth ambitions. Finally, Liao and Welsch (2003) use a subsample of 462 nascent technology-based entrepreneurs and do not observe any effects of human capital, which they operationalize via the entrepreneurs' professional experience and educational background.

(c) Social capital

Several studies explore whether and how entrepreneurs' social capital in the form of personal networks predicts growth ambitions (e.g., Efendic et al., 2015; Estrin et al., 2013b; Liao & Welsch, 2003). The results indicate that stronger external ties lead to higher growth ambitions (Estrin et al., 2013b) and that differences exist between technology-based and non-technology-based entrepreneurs in terms of social capital (Liao & Welsch, 2003). More precisely, technology-oriented entrepreneurs have higher growth ambitions when they are more relationally embedded, while non-technology-oriented entrepreneurs benefit from structural embeddedness.

(d) Country-level characteristics

Prior research also shows that several country-level characteristics shape entrepreneurial growth ambitions, mostly following an institutions-based view (e.g., Darnihamedani & Terjesen, 2020; Efendic et al., 2015; Estrin et al., 2013b; Troilo, 2011). The institutions considered include regulations, in a sense that greater levels of monetary freedom and fewer labor law restrictions positively relate to entrepreneurs' growth ambitions (Darnihamedani & Terjesen, 2020). Furthermore, intellectual property rights regulations influence growth ambitions. Better regulations in this area thus lead to higher growth ambitions, also about target market expansion (Estrin et al., 2013b; Troilo, 2011). Similarly, overall trust in institutions relates to growth ambitions (Efendic et al., 2015). Estrin et al. (2013a) explore this relationship by showing that higher corruption rates lead to smaller growth ambitions. Finally, Hessels et al. (2008) indicate that also the level of social security negatively relates to entrepreneurial growth ambitions.

Table 6.1: Quantitative research on growth ambitions of traditional entrepreneurs**.**

Authors	Journal	Data	Independent variables	Main findings
Capelleras et al. (2019)	Small Business Economics	Global Entrepreneurship Monitor (2008–2014)	Educational attainment, human capital, prior experience, regional social acceptance, and role model	• Growth ambitions are higher for startups when founders have a higher level of education and lower when they have entrepreneurial experience • Social approval and role models positively moderate the effect of experience and growth ambitions • However, the relationship of education and growth ambitions is only moderated by role models
Darnihamedani and Terjesen (2020)	Small Business Economics	Global Entrepreneurship Monitor (2012–2016)	Business, labor, and monetary freedom	• Efficient regulations in the form of fewer labor law restrictions and greater monetary freedoms positively relate to a startup's growth ambitions • These effects are even higher for male entrepreneurs
Douglas (2013)	Journal of Business Venturing	Survey with 140 students	Self-efficacy, preference for autonomy, work enjoyment, income, risk-taking, and work effort	• Self-efficacy and work enjoyment positively influence growth opportunity intentions • Risk-taking negatively relates to independence opportunity intentions
Efendic et al. (2015)	International Small Business Journal	A cross-sectional survey with 227 startup owners or managers	Social capital: Area ethnically mixed, generalized trust, institutional trust, and percentage of external ties	• In contrast to generalized trust, institutional trust has a positive effect on growth ambitions • Entrepreneurs in ethnically mixed areas have higher growth ambitions • The higher the proportion of stronger external ties the higher the growth ambitions of entrepreneurs
Estrin et al. (2013a)	Journal of Business Venturing	Global Entrepreneurship Monitor (2001–2006)	Constraints on executives, intellectual property rights, corruption, government size, social networks	• Higher growth ambitions of startups in countries where intellectual property rights are better enforced and that have smaller governments (e.g., in terms of spending) • Higher corruption rates in countries lead to smaller growth ambitions • Strong social networks decrease the negative effect of constraints on executives and corruption measures on growth ambitions
Henríquez-Daza et al. (2019)	International Review of Entrepreneurship	Global Entrepreneurship Monitor (2012–2016)	Level of entrepreneurial engagement, and opportunity perception	• The level of entrepreneurial engagement negatively predicts the startup's growth ambitions • The perception of good opportunities positively moderates this relationship
Hessels et al. (2008)	International Entrepreneurship and Management Journal	Global Entrepreneurship Monitor (2005)	Prevalence of independence and social security	• A higher number if income motivated entrepreneurs in a country relates to the growth ambitions of startups • The level of social security relates negatively to growth ambitions in terms of export orientation and job creation

Table 6.1: (continued)

Kolvereid (1992)	Journal of Business Venturing	Survey with 1,146 entrepreneurs	Education, motives, experience, Competitiveness, industry, location and product differentiation	• Motives, level of education, manufacturing industry, and past organizational growth positively relate to the growth ambitions of startups • However, experience, gender, location, or the current number of employees does not
Liao & Welsch (2003)	Journal of High Technology Management Research	A panel study of Entrepreneurial Dynamics with 462 nascent entrepreneurs	Social capital: structural capital, cognitive capital, and relational capital Financial capital, and human capital	• Technology-based entrepreneurs benefit more from relational embeddedness, while others benefit from structural embeddedness • No effects identified for the relationship between human capital and growth aspirations
Manolova et al. (2012)	Entrepreneurship & Regional Development	A panel study of Entrepreneurial Dynamics with 442 nascent entrepreneurs	Gender, motives, level of education, household income, marital status	• Man wants to grow to achieve financial success • For women financial success is only one of many reasons to achieve growth (e.g., self-realization, recognition, innovation)
Puente et al. (2017)	Small Business Economics	Global Entrepreneurship Monitor (2007–2011)	Base of the pyramid, gender, age, education, motivation, skills, fear of failure, desirable career recognition	• Belonging to the base of the pyramid, older age, and female entrepreneurs relate to lower growth aspirations, while higher education levels and opportunity orientation relate to higher aspirations. • The effects are even stronger when the base of the pyramid interacts with female entrepreneurs as well as with necessity entrepreneurs, however, a lower base of the pyramid and a high educational level
Szerb & Vörös (2021)	Small Business Economics	Global Entrepreneurship Monitor (2011–2014)	Experience, skills, and product novelty expectations	• The link between overconfidence and growth ambitions is mediated by expectations about competitive advantages
Tominc & Rebernik (2007)	Small Business Economics	Global Entrepreneurship Monitor (2004)	Opportunity recognition, cultural support, and self-efficacy.	• Higher levels of opportunity recognition and cultural support influence the growth ambitions of startups in post-socialist countries • Self-efficacy does not affect the growth ambitions
Troilo (2011)	Economic Systems	Global Entrepreneurship Monitor (2000–2005)	Intellectual property rights, legal system, procedures, start procedures, start days, start cost, common law.	• Higher intellectual property rights led to greater market expansion aspirations, while a sophisticated rule of law contributes to higher growth expectations • The number of procedures to enforce a contract as well as the number of days and procedures to start a business negatively relates to growth and market expansion aspirations

Overall, this research applies various quantitative approaches to a diverse range of datasets concerning entrepreneurs' growth ambitions. Due to its comprehensive nature, the Global Entrepreneurship Monitor (GEM) is a particularly common dataset that has provided researchers with a wealth of research opportunities to study entrepreneurial growth ambitions from both individual and country perspectives and through different theoretical lenses.

6.3.2 Growth ambitions of Social Entrepreneurs

In contrast to the growth ambitions of traditional entrepreneurs, research on the growth of social enterprises is still in its infancy. We were able to identify a total of five studies that consider the growth ambitions of social entrepreneurs. Four of the five studies are qualitative. The fifth study (Bacq et al., 2011) provides a descriptive statistic on how social entrepreneurs' growth ambitions differ from traditional entrepreneurs. We review these studies below. The qualitative studies that address the growth ambitions of social entrepreneurs focus on the various characteristics that are unique to social entrepreneurs (Cornelissen et al., 2021; Hynes, 2009; Tykkyläinen, 2019; Vickers & Lyon, 2014). These studies show that social entrepreneurs pursue traditional growth ambitions that can be financial, but also have alternative growth ambitions, for example addressing the organization's beneficiaries, which often outweigh the financial objectives (Hynes, 2009; Vickers & Lyon, 2014). Similar to traditional entrepreneurs, the financial growth ambitions of social entrepreneurs include the number of sales, the timeline for reaching breakeven, the amount of profit, etc (Tykkyläinen, 2019).

However, some social startups argue that growth ambitions in their field can be perceived as a threat. This is because financial growth can lead to a" mission drift "in which social goals are neglected in favor of financial goals (e.g., Ebrahim et al., 2014; Ramus & Vaccaro, 2017). Guelich (2020) addressed the fact that the framework of high-growth entrepreneurial activities prevails with innovative behavior and the financial market's expanded opportunities. This is a quite challenging milestone for policymakers to determine

which factor explains growth ambition well for startups (Mason & Brown, 2013). Whereas, Beier et al. (2017) supported through empirical findings that crowdfunding is an essential pillar to have growth ambitions as reliable financial resources and timely efforts provide sustainable chances of growth. Szerb & Vörös, (2021) provided findings that in an early stage of business, most nascent entrepreneurs are highly optimistic and confident to achieve growth which changes with the gain of experience and development of judgments.

Moreover, the contribution of job creation is considered more fast-paced and dynamic growth parameters for successful entrepreneurial activity (Stam et al., 2011). Social entrepreneurs usually are subject to strategic capabilities and relationships (Vickers, & Lyon, 2014), upgraded ethics and resource deployment (André & Pache, 2016), communal strategy agenda (Terjesen et al., 2016), facilitator and dual mission (Siebold et al., 2019), opportunity perception (Tykkyläinen, 2019). The growth aspiration of social entrepreneurial activities is a methodical singularity that initiates with specific growth intention to the solidarity of networking and premeditated supportive mechanisms against intimidations (Douglas, 2013; Machado et al., 2021). Furthermore, existing literature GEM (2021) states that early-stage entrepreneurial activities are relatively highest in Latin America and the Caribbean global region, whereas Europe and North America are the least entrepreneurial (Bosma et al., 2021). These characteristics of social entrepreneurs' growth ambitions are reflected in their identity and determine how it is shaped in the early stages of growth (Cornelissen et al., 2021). The quantitative study by Bacq et al. (2011) descriptively explores differences between traditional and social entrepreneurs using GEM data from 2009. Besides differences in average age, education, self-confidence, and perceived legitimacy as an entrepreneur, one proposition of the authors is that “social entrepreneurs are less ambitious in terms of employment growth than commercial entrepreneurs “(p. 34).

Table 6.2: Growth ambitions of Social Entrepreneurs.

Authors	Journal	Data	Main findings
Bacq et al. (2011)	Scales Research reports, EIM Business and Policy Research	Global Entrepreneurship Monitor 2009	• Social entrepreneurs are younger, highly educated, less self-confident, and perceive the legitimation of entrepreneurs in society differently • Social entrepreneurs have lower growth aspirations
Cornelissen et al. (2021)	Journal of Management Studies	In-depth longitudinal data	• Identify how identity is formed in hybrid startups • Hybrid startups aspire to a sustainable level of development and growth • Solely focus on consumer activists demonstrates an insufficient growth model • Collective labeling of the startup's identity in the early growth stage
Hynes (2009)	Social Enterprise Journal	Four case studies	• Social entrepreneurs have growth aspirations that have multiple perspectives • Growth ambitions about the external beneficiary perspective dominate over internal financial metrics
Tykkyläinen (2019)	Social Enterprise Journal	Seven Interview Case Studies	• Social startups have perceived threats as the origin of growth ambitions • Financial growth ambitions include the level of turnover, timeline for reaching breakeven, and profit level • Social growth ambitions are about the number of beneficiaries, reduction of public spending, and enhanced service chains
Vickers & Lyon (2014)	International Small Business Journal	Eight case studies	• Conventional and alternative growth ambitions identified • Alternative growth ambitions encompass "deepening impacts within specific niches and communities"

6.3.3 Hypothesis and theory

I) Differences in the growth ambitions of Social and Commercial Entrepreneurs

Prior research documents differences in the characteristics of social entrepreneurs and commercial, nonsocial entrepreneurs (e.g., Austin et al., 2006; Brändle et al., 2019; Gupta et al., 2019). Most of these differences arise from the different goal sets: social entrepreneurs pursue social goals, which leads to particularities in their intentions, motivations, and behavior (e.g., Santos et al., 2021; Smith et al., 2016), as well as in the financing, stakeholder relations, and growth of their businesses (e.g., Block et al., 2021; Vega & Kidwell, 2007). We argue that these differences also lead to varying growth ambitions, which have important implications for the economic appraisal of social entrepreneurship in general and in comparison, with commercial entrepreneurship. These differences in growth ambitions come from external factors (e.g., environment, industry, firm) and internal factors (risk-taking, education).

External and internal factors. In terms of industries, social entrepreneurs tend to operate in the service sector, where new ventures grow more easily than in other industries (e.g., Kollmann et al., 2016). For example, many commercial entrepreneurs around the world are established in the retail sector (e.g., Glaeser & Kerr, 2009), which generally have lower growth rates. Another argument is that social entrepreneurs' growth ambitions in terms of employee development are higher among social entrepreneurs because their employees value non-financial compensation even more, which makes it easier to motivate employees to work with them (Austin et al., 2006). This is in line with prior research that reports advantages for social enterprises to attract high-skilled employees (e.g., Roumpi et al., 2020).

Prior research also suggests that the individual characteristics of social entrepreneurs differ from commercial entrepreneurs. Brändle et al. (2019) show that founders in Germany who aim to

have a social impact (missionary identity) are more willing to take higher risks and thus achieve growth at the entrepreneurial and social levels. Smith et al. (2014) reinforce the point of higher risk-taking among social entrepreneurs, adding that they also exhibit higher levels of creativity and innovativeness. This, in turn, can lead to higher growth ambitions. Finally, research suggests that individuals with higher levels of education are more likely to start social ventures (e.g., Levie & Hart, 2011; Terjesen et al., 2016). Social entrepreneurial business advocates the well-being of society, economic benefits, people's welfare, and solutions to environmental issues (Mair & Marti, 2006; Doherty et al., 2014; Bonfanti et al., 2016). This could also explain the higher growth ambitions of social entrepreneurs compared to commercial entrepreneurs because prior research shows higher levels of education in a founding team are associated with higher growth ambitions (e.g., Capelleras et al., 2019; Kolvereid, 1992). Overall, the individual and firm-level differences between social entrepreneurs and commercial entrepreneurs lead us to assume that social entrepreneurs have higher growth ambitions even if this assumption is in contrast with the descriptive results of Bacq et al. (2013). In particular, we believe that the growing momentum of entrepreneurship to solve societal challenges and thus achieve the SDGs has a positive impact on growth ambitions in this area. We hypothesize:

> ***RQ6.1:*** *Social entrepreneurship (vs. commercial entrepreneurship) is positively associated with higher growth ambitions.*

II) The moderating role of the level of development of a country (HDI)

In addition to the differences that exist between social and commercial entrepreneurs, differences exist within the field of social entrepreneurship (e.g., Del Giudice et al., 2019; Kachlami et al., 2018; Renko, 2013). Prior research documents differences between social

entrepreneurs in developing and developed countries (e.g., Lepoutre et al., 2013; Nicolás et al., 2018). These differences arise from the different social problems that social entrepreneurs face in different contexts. In South Africa, for example, such challenges consist of immense inequalities in wealth and education, housing, or health problems (e.g., the HIV pandemic) (e.g., Urban, 2008). We assume that social entrepreneurs addressing more basic needs (e.g., housing) have lower growth ambitions. Therefore, their growth ambitions are less different from commercial entrepreneurs in that they primarily aim to meet only basic needs. This assumption is consistent with Puente et al. (2017), who show that entrepreneurs from the base of the pyramid have lower growth ambitions. The fact that social entrepreneurs in less developed countries often face contextual constraints, such as less access to external resources (e.g., funding) to grow their businesses, reinforces our assumption (e.g., Azmat, 2013; Urban, 2008).

Further differences exist regarding the form of capitalism in developed countries (e.g., Bacq et al., 2013; Defourny & Nyssens, 2017). Thus, one literature stream distinguishes between social entrepreneurs in the US and Europe (e.g., Defourny & Nyssens, 2010b; Mas-Machuca et al., 2017). While US social entrepreneurs often create nonprofit organizations, European social entrepreneurs work closely with public authorities to fulfill their social missions (e.g., Defourny & Nyssens, 2010a). But there are also major differences within Europe (e.g., Hazenberg et al., 2016). For example, Defourny and Nyssens (2010a) find differences between socio-democratic, corporatist, liberal, and southern European countries that result from different types of welfare mixes (e.g., Chell et al., 2010; Evers & Laville, 2004). The ambitious perspective indicates the prominent determination of the respective individual to new ventures (Levie & Autio 2011). In liberal countries such as the UK, social entrepreneurs have less ability to rely on government social spending. In contrast, social entrepreneurs in Nordic countries are tasked with creating jobs, similar to commercial entrepreneurs. This is because governments in these countries take on the

task of providing welfare. We expect that social entrepreneurs in the most developed countries will therefore have to deal with issues related to the lack of a social system less often. Instead, they can address larger global societal challenges. Large-scale social challenges, in turn, are particularly addressed by social entrepreneurs who seek highly scalable solutions to achieve large-scale social impact (e.g., Zahra et al., 2008). Hence, we argue that social entrepreneurs in highly developed countries have even higher growth ambitions compared to commercial firms.

Consistent with previous research by Nicolás et al. (2018), we argue that social entrepreneurs differ depending on a country's level of development. For the reasons mentioned above, we assume that economic development, living conditions as well as educational opportunities in a country influence the growth ambitions of social entrepreneurs. Since these characteristics are part of the HDI, we assume that a higher HDI in a country is associated with higher growth ambitions of social entrepreneurs. This leads us to the following hypothesis:

> ***RQ6.2:*** *The country's level of development (HDI) positively moderates the effect of social entrepreneurship on the entrepreneur's growth ambitions.*

6.4 Methodology

6.4.1 Empirical settings and data collection

The GEM 2015 serves as our main database. The GEM is one of the most comprehensive surveys available on entrepreneurial activities at the individual level. The dataset has been published and continuously updated since 1999 and has been widely used in academic research (e.g., Aidis et al., 2008; Boudreaux et al., 2019). It covers individual observations from more than 40 countries. In 2015, the GEM included the special topic "social entrepreneurship", which allows us to identify social entrepreneurial activity by individuals in different countries. Capelleras et al.

(2019), encouraged the future researcher to extend the entrepreneurial growth ambition in combination with cross-sectional determinants from the GEM dataset across various economies. Extending the previous empirical research work we have employed multiple country's data specifically to evaluate the impact of the regional and development status of the country on the growth ambitions of social entrepreneurship (Tominc & Rebernik, 2007; Henríquez-Daza et al. 2019; Puente et al., 2017; Szerb & Vörös, 2021).

We combine the data of the GEM with country-level data from the United Nations Development Program, which provides the Human Development Index annually (HDI). The HDI includes health, education, and living standards in a country and has been used in several prior studies to examine how the level of development in a country affects entrepreneurship (e.g., Brieger et al., 2021; Thai & Turkina, 2014). After dropping for missing values, our final dataset includes 12,695 entrepreneurs, 1,860 (14.7%) of whom are social entrepreneurs. Furthermore, the entrepreneurs come from 38 countries, 18 of which are classified as developing countries by the World Bank. Table 7.3 presents the list of countries, the number of traditional and social entrepreneurs, and the HDI of each country.

Table 6.3: Sample of entrepreneurs by countries.

Country	Traditional entrepreneurs	Social entrepreneurs	Total number of entrepreneurs	HDI	Developing/developed
Argentina	325	39	364	0.840	Developing
Australia	143	43	186	0.938	Developed
Botswana	590	79	669	0.717	Developing
Brazil	382	17	399	0.756	Developing
Canada	257	0	257	0.921	Developed
Chile	1,023	309	1,332	0.842	Developed
China	304	83	387	0.930	Developing
Colombia	605	190	795	0.756	Developing
Croatia	100	31	131	0.840	Developed
Egypt	147	25	172	0.691	Developing
Estonia	150	45	195	0.877	Developed
Finland	85	22	107	0.930	Developed
Germany	145	22	167	0.938	Developed
Greece	110	4	114	0.877	Developed
Guatemala	285	62	347	0.652	Developing
Hungry	80	32	112	0.842	Developed
India	176	101	277	0.624	Developing
Indonesia	948	37	985	0.695	Developing
Iran	328	51	379	0.774	Developing
Israel	83	47	130	0.910	Developed
Italy	61	21	82	0.882	Developed
Kazakhstan	122	14	136	0.806	Developing
Mexico	786	31	817	0.766	Developing
Morocco	75	4	79	0.658	Developing
Netherlands	114	24	138	0.934	Developed
Peru	360	58	418	0.759	Developing
Philippines	236	106	342	0.701	Developing
Poland	92	20	112	0.863	Developed
Portugal	136	30	166	0.854	Developed
Romania	165	28	193	0.815	Developing
South Africa	196	31	227	0.375	Developing
South Korea	128	11	139	0.907	Developed
Spain	1,040	50	1,090	0.895	Developed
Sweden	127	42	169	0.938	Developed
Switzerland	80	25	105	0.947	Developed
Thailand	353	28	381	0.749	Developing
United Kingdom	387	52	439	0.923	Developed
United States	111	44	155	0.921	Developed
Total	**10,835**	**1,860**	**12,695**	**-**	**-**

6.4.2 Measurement of study variable

I) Dependent variable

Social enterprise growth ambition: To analyze our hypothesis, we collected our dependent variable from GEM (2015). GEM (2015) collects data on the number of expected jobs that can be created in five years. Which is specifically mentioned as "Expected job growth (persons) in 5 years" in the GEM (2015) dataset (Efendic et al., 2015; Levie & Autio, 2011). GEM (2015) collects data on this measurement as a continuous statistical variable as used in numerous prior studies (e.g., Capelleras et al., 2019). Assumed the skewness of this measurement provided in GEM (2015), we considered the logarithm calculation of the variable in our study (Astebro & Tag, 2015), The calculation of the logarithm consisted of '1+ expected number of created jobs.

II) Independent variable and moderating variable

Social enterprise: At the individual level, we collected measurements of social enterprise from GEM (2015). GEM (2015) In line with prior research of Lepoutre et al. (2013) and Hechavarría and Brieger (2020) we assess social entrepreneurial activity based on the following GEM question: 'Are you, alone or with others, currently trying to start or currently leading any kind of activity that has a social, environmental or community objective?'. Which is categorized into four sub measurements 1= Yes, currently trying to start, 2= Yes, currently leading, 3= Yes, trying to start AND leading, and 4= No (Cai et al., 2014; Terjesen, 2017; Nicolás et al., 2018). We converted this independent variable also tested as a moderating variable into a binary variable which was coded as 1 if trying to start or currently leading any kind of activity that has a social, environmental, or community objective and was coded as 0 otherwise.

Human development index: While these variables are at the individual level, prior evidence suggests that entrepreneurial growth ambitions (e.g., Puente et al., 2017), as well as social entrepreneurial activities (e.g., Defourny & Nyssens, 2010a), differ between countries with different development statuses. Thus, we also include a country-level moderator in our analyses. We tested our hypothesis with one more independent variable from the Human Development Index (HDI), 2015. The index is a merged human development measure that calculates the average progress of a region or country in accomplishing various indicators including 1= long and healthy life, as measured by life expectancy after birth. 2= Admittance to knowledge, which is calculated by a grouping of two indicators, specifically the literacy rate of people and the ratio of attending education or length of schooling in primary, secondary, and upper education. 3= Decent living standards which are measured by GDP per capita expressed in people's purchasing power (UNDP,2015; Anand & Sen, 1994).

III) Control variable

Age: Lepoutre et al. (2013) pointed out that the tendency to indulge in SE activities is likely higher in the young age group than in other age groups. Considering this we controlled for respondent age at the individual level (Boudreaux et al., 2019; Darnihamedani et al., 2018). GEM (2015) reported respondent's ages in the following categories: 0-17,18–24, 25–34, 35–44, 45–54, and 55–64, 65-120 which we coded as categories 1–7, respectively.

Gender: Existing literature argues that men are somewhat more inclined to engage in SE activities than women (Estrin et al., 2013b). GEM (2015) provides us with gender variables categorized into male and female at the individual level. We controlled at the individual level for gender by coding female as 0 and coding male as 1.

University *Education;* Estrin et al. (2013b) proved that there is a significant relationship between education and SE activities. We controlled for education measurement provided by GEM (2015) at the individual level. GEM (2015) coded education as pre-primary= 0, primary/first stage basic education =1, lower secondary/second stage basic education =2, upper secondary= 3, post-secondary, non-tertiary education = 4, first stage of tertiary education= 5, and second stage of tertiary education =6). We transformed education into university education by the coding value of 1 if the individual had a university degree or 0 otherwise (Davidsson & Honig, 2003).

Self-employed; GEM (2015) collects data on the work experience of individuals which is coded into the following categories: 1= Full: full or part-time, 2= Part-time only, 3= Retired, disabled, 4= Homemaker, 5= Student, 6= Not working, 7=Self-employed, 8= Other (Gozun & Rivera). We controlled for work experience at the individual level.

Fear of failure: Our research study also controlled for fear of failure at the individual level. GEM (2015) measures this variable by asking the question "Would fear of failure prevent you from starting a business?". Fear of failure was coded as 1 if fear of failure prohibited the respondent from starting a business or 0 otherwise (Darnihamedani & Terjesen, 2020).

Entrepreneurial skills: GEM (2015) provides the measurement of "SUSKIL adapted to make it fit for national level aggregation" which measures entrepreneurial skills. GEM (2015) coded this variable as 1 (or 0 otherwise) if, according to the respondent, s/he has the skill and experience required to start a business (Koellinger et al., 2007). We controlled for this variable at the individual level.

Established entrepreneurship: We controlled for this variable at the individual level from GEM (2015). GEM (2015) collects data from respondents mentioning 'Manages and owns a business that is older than 42 months. An established (new) entrepreneur was coded as 0 if the entrepreneur started his/her venture less than 42 months ago and 1 otherwise (Hessels et al., 2008).

Innovative entrepreneurship: At the individual level, we collected our independent variable from GEM (2015). GEM (2015) collects data by asking the question 'My organization offers products or services that are new to the market based on 5 Likert scales i.e., 1= Strongly Disagree, 2= Somewhat Disagree, 3= Neither Agree nor Disagree, 4= Somewhat Agree, 5= Strongly Agree. We transformed the Likert scale measurement into binary measurement by mentioning innovative (imitative) entrepreneurs coded as 1 if the entrepreneur's products or services were new to the market and coded as 0 otherwise (Darnihamedani et al., 2018; Young et al., 2018). We also tested innovative entrepreneurship as a moderating variable if it provides any significant interaction term with the dependent variable or otherwise.

Entrepreneurial network: GEM (2015) collects respondents' data by asking the question "Do you know someone personally who started a business in the past 2 years?". We controlled the entrepreneurial network at the individual level by taking the value of 1 if the respondent had an entrepreneur in his/her social network or 0 otherwise.

Opportunity motives: At the individual level, we collected our next independent variable from GEM (2015). GEM (2015) provides us with measurement mentioning i.e., 'TEA: opportunity, necessity or other motives' categorized into three measures, 1= Opportunity motive, 2= Necessity motive, and 3= Other motive. We calculated this measurement as a binary variable by defining 'Has the perception of start-up opportunities coded as 1 and coded as 0 otherwise (e.g., Torrès et al., 2021). We also checked for the moderation effect of the opportunity motives.

Alertness opportunities: GEM (2015) provides the measurement mentioning "OPPORT adapted to make it fit for national level aggregation" which refers to good opportunities for starting a business in the six months after filling in the survey in the GEM (2015) dataset. Considering this, we calculated a dummy variable called alertness to opportunities which was measured as 1 (or 0 otherwise) (Boudreaux et al., 2019)

Industry: Finally, we include 12 dummy variables for the industries in which the entrepreneur may operate. Set of 12 dummy variables that capture the main industry of the social startup. Dummies include the industries (a) agriculture, forestry, and fishing, (b) mining and construction, (c) manufacturing, (d) utilization, transport and storage, (e) wholesale trade, (f) retail trade, hotels, and restaurants, (g) information and communication, (h) financial intermediation and real estate activities, (i) professional services, (j) administrative services, (k) government, health, education, and social services, (l) personal/consumer service activities.

Europe: To address national differences, we include two further control variables. First, we conduct a dummy that captures whether the entrepreneur is from Europe or not. GEM (2015) provides a list of countries as variables with the title of "ctryalp". We include this variable because prior research has shown that social entrepreneurship in Europe has special characteristics (e.g., Defourny & Nyssens, 2010a).

Second, we include a continuous variable that measures the social expenditures in % of the GDP in a country. The data on this variable were extracted from the OECD.[9] The Organization for Economic Co-operation and Development collects large amounts of data from various economies covering various indicators.

[9] See https://stats.oecd.org/Index.aspx?DataSetCode=SOCX_AGG.

Table 6.4: Variables, definitions, and GEM code.

Variable	Description	GEM code
Dependent variable		
Growth ambitions	Captures the expected job growth (in persons) in the next five years.	TEAJOBGR
Independent variables		
Social entrepreneur	Captures whether the entrepreneur is currently starting any kind of social entrepreneurial activity.	SESTART
HDI	The Human Development Index (HDI) captures the development in a country based on the lifespan, education level, and gross national income.	-
Control variables: individual level		
Age	Captures the entrepreneur's age.	age
Female	Captures whether the entrepreneur is female.	gender
University education	Captures whether the entrepreneur has a university degree of education.	UNEDUC
Self-employed	Captures whether the entrepreneur's main working status is self-employed.	GEMOCCU
Fear of failure	Captures whether the fear of failure would prevent the entrepreneur from starting a business.	fearfail
Entrepreneurial skills	Captures the entrepreneur's self-assessment of whether or not the skills to start a new business are present.	SUSKIL
Established entrepreneurship	Captures whether the entrepreneur manages and owns a business that is older than 42 months.	ESTBBUSO
Innovative entrepreneurship	Captures whether the entrepreneur's organization offers products or services that are new to the customers or not offered by competitors.	sunewcst and sucompet
Entrepreneurial networks	Captures whether the entrepreneur knows someone who has started a business in the past two years.	knowent
Opportunity motive	Captures whether the entrepreneur is opportunity-driven	TEAyyMOT
Alertness to opportunities	Captures whether the entrepreneur sees good opportunities for starting a business in the next six months.	OPPORT
Industry dummies	Set of 12 dummy variables that capture the main industry of the social startup. Dummies include the industries (a) agriculture, forestry, and fishing, (b) mining and construction, (c) manufacturing, (d) utilization, transport and storage, (e) wholesale trade, (f) retail trade, hotels and restaurants, (g) information and communication, (h) financial intermediation and real estate activities, (i) professional services, (j) administrative services, (k) government, health, education and social services, (l) personal/consumer service activities.	
Control variables: country level		
Europe	Captures whether the entrepreneur is from Europe.	ctryalp
Social expenditure	Captures the amount of social expenditure in % of the country's GDP.	-

6.5 Findings

6.5.1 Descriptive results and univariate analyses

Table 7.5 shows the descriptive statistics and univariate analyses for our set of variables. These results on the differences between commercial and social entrepreneurs. The descriptive statistics of the dependent variable growth ambitions show that entrepreneurs aim to create around 11 new jobs in the next five years. However, the large standard deviation (SD = 92.5) indicates that the variable is highly skewed. The results of a t-test ($p < 0.01$) show that social entrepreneurs (mean = 23.9) have more than twice the growth ambitions of commercial entrepreneurs (mean = 9.1). In addition to our independent variable social entrepreneur (14.6% of all entrepreneurs), the average HDI is 0.799 on average. Furthermore, we do not find any statistically significant differences between social and commercial entrepreneurs concerning this country-level independent variable.

The results of the t/z tests with our individual-level control variables show some differences between social and commercial entrepreneurs. First, social entrepreneurs seem to be older on average. Second, fewer social entrepreneurs are female. While 37.1% of social entrepreneurs are female, 43.6% of commercial entrepreneurs are female. These results are similar to those of Estrin et al. (2013a), who used the 2001–2006 GEM surveys as their data basis. The third difference concerns working status. Commercial entrepreneurs are rather fully self-employed than social entrepreneurs. Fourth, social entrepreneurs consider their entrepreneurial activities to be more innovative and have a larger entrepreneurial network. Finally, social entrepreneurs have a higher opportunity motive and see more possibilities for new entrepreneurial opportunities in the future. Besides the individual-level variables of fear of failure, entrepreneurial skills, and established entrepreneurship, we also find no statistically significant differences for our country-level control

variables. On average 26.5% of the entrepreneurs in our sample are from Europe and spend 8% of their GDP on social expenditures.

Table 6.5: Descriptive statistics and comparison of means

Column	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Sample	**Full sample**				**Subsamples: Social entrepreneur**		
					No	**Yes**	**t/z-test**
N (observations)	**12,695**				**10,835**	**1,860**	**12,695**
Variables	**Mean**	**SD**	**Min**	**Max**	**Mean**	**Mean**	**Sig.**
Dependent variable							
Growth ambitions	11.247	92.536	0	2,000	9.076	23.890	***
Independent variables							
Social entrepreneur	0.147	0.354	0	1	-	-	-
HDI	0.799	0.105	0.375	0.947	0.799	0.802	
Control variables: individual level							
Age	37.956	11.978	18	90	37.817	38.769	***
Female	0.426	0.495	0	1	0.436	0.371	**
University education	0.276	0.447	0	1	0.261	0.363	***
Self-employed	0.540	0.498	0	1	0.552	0.469	***
Fear of failure	0.300	0.458	0	1	0.306	0.267	
Entrepreneurial skills	0.839	0.368	0	1	0.833	0.871	
Established entrepreneurship	0.037	0.189	0	1	0.036	0.046	
Innovative entrepreneurship	0.187	0.390	0	1	0.167	0.299	***
Entrepreneurial networks	0.655	0.475	0	1	0.639	0.748	***
Opportunity motive	0.722	0.448	0	1	0.715	0.767	**
Alertness to opportunities	0.626	0.484	0	1	0.613	0.699	***
Control variables: country level							
Europe	0.262	0.440	0	1	0.265	0.242	
Social expenditure	0.080	0.096	0	0.305	0.080	0.083	

Notes: Column (7) displays the significant levels of t-tests (ordinal/metric variables) or z-tests (proportions). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

6.5.2 Multivariant analysis

We perform a multilevel mixed-effects linear regression analysis, also called hierarchical linear models. Thus, we have two levels in our data, level one is on the individual level of the entrepreneurs, and level two is on their country level. To apply to the conditions of multilevel analyses, we test for sufficient variation in both models (e.g., Aguinis et al., 2013). By conducting inter-class correlations (ICCs), we examine if level one and level two observations differ significantly. Based on the null model (intercept only), we show that 10.5% of the total variance is on the country level (level one), while 89.5% can be attributed to the individual level (level two). This is in line with prior studies that report similar ICCs based on GEM data (e.g., Darnihamedani & Terjesen, 2020).

Table 7.7 illustrates the results of our main analyses. Model 1 demonstrates the results of our control variables with random intercepts. We find that all individual-level control variables have a significant effect on our dependent variable, while the country-level controls are nonsignificant. For example, the results show that gender, age, education, and the motives of entrepreneurs influence their growth ambitions. These findings are in line with various prior studies that investigate growth ambitions (e.g., Kolvereid, 1992; Manolova et al., 2012)

Model 2 displays the results concerning Hypothesis 1. We find evidence that social entrepreneurs indeed have higher growth aspirations than commercial entrepreneurs ($p < 0.01$). These results support Hypothesis 1 and contrast the descriptive findings of Bacq et al. (2013).

Model 3 introduces HDI as a moderator and assesses Hypothesis 2. We centered our HDI variable to enable an easier interpretation of the results (e.g., Afshartous & Preston, 2011). Our results support Hypothesis 2. Thus, we show that the level of development in a country (HDI) positively moderates the growth ambitions of social and commercial entrepreneurs ($p < 0.01$).

Table 6.6: Correlations.

Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**	**(15)**
(1) Growth ambitions															
(2) Social entrepreneur	0.06														
(3) HDI	0.02	0.01													
(4) Age	0.00	0.03	0.14												
(5) Female	-0.04	-0.05	-0.05	-0.01											
(6) University education	0.04	0.08	0.17	0.03	-0.05										
(7) Working status	-0.03	-0.06	-0.03	0.07	0.04	-0.04									
(8) Fear of failure	-0.02	-0.03	-0.03	0.01	0.06	0.00	-0.01								
(9) Entrepreneurial skills	0.02	0.04	-0.01	0.01	-0.05	0.07	0.04	-0.16							
(10) Established entrepreneurship	0.02	0.02	0.03	0.07	-0.04	0.05	0.09	-0.03	0.04						
(11) Innovative entrepreneurship	0.05	0.12	-0.04	0.04	-0.02	-0.01	-0.07	-0.04	0.04	0.05					
(12) Entrepreneurial networks	0.02	0.08	0.02	-0.06	-0.04	0.08	0.04	-0.04	0.14	0.02	0.03				
(13) Opportunity motive	0.01	0.04	0.04	-0.06	-0.07	0.13	-0.06	-0.06	0.05	0.05	0.01	0.08			
(14) Alertness to opportunities	0.01	0.06	-0.05	-0.07	0.00	0.03	-0.03	-0.10	0.11	0.02	0.07	0.16	0.09		
(15) Europe	-0.01	-0.02	0.53	0.07	-0.07	0.15	0.02	-0.04	0.03	0.01	-0.09	-0.02	0.04	-0.07	
(16) Social expenditure	-0.01	0.01	0.56	0.11	-0.06	0.13	0.03	-0.04	0.01	0.01	-0.02	-0.04	0.05	-0.06	-0.01

Notes: N = 12,695

6.5.3 Robustness checks and further analysis

Robustness analysis is an essential methodology to test the theory with the support of an oversimplified theorem and an exclusive feature of science (Weisberg, 2006). Robustness tests the specification of models by defining baseline models with variations of regressions. Robustness is a vital part of empirical analysis to confirm the chance of uncertainty. To confirm if variation in models and variables can lead to sensitivity of estimated main effects robustness is strong evidence analysis. To assess the robustness of our results, we conduct two further analyses. First, we separate the entrepreneurs into two groups. Thus, we have 4,995 (39.4%) who aim to create at least one further job and 7,700 (60.7%) who do not want to create jobs. We then estimate a multilevel logistic regression with growth ambitions as a binary dependent variable.

The results are displayed in Table 7.7. Regarding Hypothesis 1 and 2, the findings in Models 2 and 3 confirm our main results and underline the robustness of our findings.

Second, we check whether our interaction effect results hold for using the binary variable developed versus developing country (World Bank) instead of the HDI. This variable has been applied in prior studies that investigate entrepreneurship by using GEM data (e.g., Acs et al., 2009). Table 7.8 shows that our results hold for the new independent variable as well.

Finally, we conduct another further analysis of HDI. Therefore, we use the four separate components of HDI. More specifically, HDI is separated into (1) life expectation, (2) expected years of schooling, (3) mean years of schooling, and (4) gross national income (GNI). The results of our interaction effects demonstrate that only mean years of schooling account for the positive effect ($p < 0.01$). The other three components, however, remain nonsignificant.

Table 6.7: Main analysis: Results of a multilevel regression with growth ambitions (log) used as the dependent variable.

Model		**(1)**	**(2)**	**(3)**
Statistic (Fixed effects)		**Coeff. (SE)**	**Coeff. (SE)**	**Coeff. (SE)**
Control variables: individual level				
Age		-0.004 (0.001) ***	-0.005 (0.001) ***	-0.005 (0.001) ***
Female		-0.219 (0.020) ***	-0.213 (0.020) ***	-0.215 (0.020) ***
University education		0.212 (0.023) ***	0.202 (0.023) ***	0.199 (0.023) ***
Self-employed		-0.166 (0.021) ***	-0.163 (0.021) ***	-0.161 (0.021) ***
Fear of failure		-0.062 (0.022) ***	-0.060 (0.021) ***	-0.059 (0.021) ***
Entrepreneurial skills		0.101 (0.027) ***	0.099 (0.027) ***	0.097 (0.027) ***
Established entrepreneurship		0.485 (0.051) ***	0.479 (0.051) ***	0.475 (0.051) ***
Innovative entrepreneurship		0.252 (0.026) ***	0.232 (0.026) ***	0.233 (0.026) ***
Entrepreneurial networks		0.108 (0.021) ***	0.094 (0.021) ***	0.096 (0.021) ***
Opportunity motive		0.175 (0.022) ***	0.168 (0.022) ***	0.172 (0.022) ***
Alertness to opportunities		0.105 (0.020) ***	0.099 (0.020) ***	0.099 (0.020) ***
Industry dummies (12)		Yes	Yes	Yes
Control variables: country level				
Europe		-0.147 (0.156)	-0.147 (0.154)	-0.146 (0.153)
Social expenditures		-0.423 (0.736)	-0.443 (0.725)	-0.447 (0.722)
Independent variables				
HDI		0.736 (0.577)	0.750 (0.568)	0.570 (0.567)
Social entrepreneur	*H1*		0.294 (0.028) ***	0.290 (0.028) ***
Social entrepreneur x HDI	*H2*			1.074 (0.255) ***
Observations		12,695	12,695	12,695
Countries		38	38	38
Chi²		997.271	1,117.639	1,137.043
Log-likelihood		-18,807.394	-18,751.917	-18,743.032

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01; Coeff. = coefficient, SE = standard error.

Table 6.8: Robustness check: Results of a multilevel logistic regression with growth ambitions (dummy) used as a dependent variable.

Model		**(1)**	**(2)**	**(3)**
Statistic (Fixed effects)		**Coeff. (SE)**	**Coeff. (SE)**	**Coeff. (SE)**
Control variables: individual level				
Age		-0.010 (0.002) ***	-0.010 (0.002) ***	-0.010 (0.002) ***
Female		-0.249 (0.042) ***	-0.245 (0.042) ***	-0.247 (0.042) ***
University education		0.241 (0.049) ***	0.231 (0.049) ***	0.229 (0.049) ***
Self-employed		-0.361 (0.044) ***	-0.360 (0.044) ***	-0.357 (0.044) ***
Fear of failure		-0.075 (0.045) *	-0.074 (0.045) *	-0.073 (0.045)
Entrepreneurial skills		0.258 (0.056) ***	0.257 (0.056) ***	0.254 (0.056) ***
Established entrepreneurship		1.007 (0.120) ***	1.000 (0.120) ***	0.997 (0.120) ***
Innovative entrepreneurship		0.314 (0.057) ***	0.295 (0.057) ***	0.297 (0.057) ***
Entrepreneurial networks		0.227 (0.043) ***	0.213 (0.044) ***	0.215 (0.044) ***
Opportunity motive		0.362 (0.046) ***	0.356 (0.046) ***	0.360 (0.046) ***
Alertness to opportunities		0.331 (0.043) ***	0.326 (0.043) ***	0.327 (0.043) ***
Industry dummies (12)		Yes	Yes	Yes
Control variables: country level				
Europe		-0.281 (0.289)	-0.281 (0.288)	-0.281 (0.288)
Social expenditures		0.100 (1.366)	0.071 (1.361)	0.063 (1.360)
Independent variables				
HDI		0.173 (1.070)	0.190 (1.066)	-0.003 (1.069)
Social entrepreneur	*H1*		0.325 (0.063) ***	0.317 (0.063) ***
Social entrepreneur x HDI	*H2*			1.271 (0.547) **
Observations		12,695	12,695	12,695
Countries		38	38	38
Chi^2		575.763	597.902	601.667
Log-likelihood		-7,516.962	-7,503.209	-7,500.540

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01; Coeff. = coefficient, SE = standard error.

Table 6.9: Robustness check: Results of a multilevel regression with growth ambitions (log) used as the dependent variable and the developed country (dummy) as the interaction variable.

Model		**(1)**
Statistic (Fixed effects)		**Coeff. (SE)**
Control variables: individual level		
Age		-0.005 (0.001) ***
Female		-0.214 (0.020) ***
University education		0.201 (0.023) ***
Self-employed		-0.162 (0.021) ***
Fear of failure		-0.059 (0.021) ***
Entrepreneurial skills		0.098 (0.027) ***
Established entrepreneurship		0.478 (0.051) ***
Innovative entrepreneurship		0.231 (0.026) ***
Entrepreneurial networks		0.095 (0.021) ***
Opportunity motive		0.170 (0.022) ***
Alertness to opportunities		0.099 (0.020) ***
Industry dummies (12)		Yes
Control variables: country level		
Europe		-0.139 (0.171)
Social expenditures		-0.283 (0.759)
Independent variables		
Developed country		0.059 (0.171)
Social entrepreneur	*H1*	0.220 (0.038) ***
Social entrepreneur x Developed country	*H2*	0.157 (0.055) ***
Observations		12,695
Countries		38
Chi²		1,124.650
Log-likelihood		-18,748.566

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01; Coeff. = coefficient, SE = standard error.

6.6 Discussion

We explore how social entrepreneurs differ from commercial entrepreneurs in their growth ambitions. Our main finding contrasts previous findings by Bacq et al. (2013) and shows that social entrepreneurs have higher growth ambitions than commercial entrepreneurs.

While this finding may seem counter-intuitive at first glance, it is in line with prior insights from the field of social entrepreneurship. For example, the development of the standardized methodology for measuring social entrepreneurship by Lepoutre et al. (2013) has enabled numerous studies to shed light on the specifics of social entrepreneurs. Prior research shows that social and commercial entrepreneurship entries differ (e.g., Estrin et al., 2013b; Nicolás et al., 2018). In addition, the studies use GEM data on social entrepreneurship to illustrate the differences within the group of social entrepreneurs. As such, Hechavarría and Brieger (2020) examine particular characteristics of women entrepreneurs in terms of different forms of culture practiced in a society. However, while there is some qualitative research examining the growth ambitions of social entrepreneurs (e.g., Cornelissen et al., 2021; Vickers & Lyon, 2014), there is a lack of quantitative evidence on the growth ambitions of social entrepreneurs. Therefore, we add important new insight to the understanding of globally emerging social entrepreneurs and their ventures.

Moreover, our comparative findings between social and commercial entrepreneurs add to the diversity of previous research on entrepreneurial growth ambitions (e.g., Douglas, 2013; Estrin et al., 2013a). Thus, we extend knowledge about different types of entrepreneurship. For example, Kolveid (1992) shows that entrepreneurs' growth ambitions differ by industry, and Puente et al. (2017) study entrepreneurship at the bottom of the pyramid. Now our results show that social entrepreneurs also have higher growth ambitions than the overall group of commercial

entrepreneurs. This could be because entrepreneurial opportunities to address social or environmental societal challenges are experiencing global momentum. In addition, Brändle et al. (2019) argue that mission-oriented entrepreneurs are willing to take higher risks in exchange for higher growth. This may explain why social entrepreneurs, who typically have a social mission, also have higher growth targets and is consistent with research suggesting that higher growth ambitions lead to higher realized growth (e.g., Stenholm, 2011; Wiklund et al., 2009).

Our moderation results show that a country's level of development amplifies the positive relationship between social entrepreneurship and entrepreneurial growth ambitions. This result can be explained in several ways. First, prior studies of entrepreneurship in different industrialized countries show that growth ambitions vary in this regard. For example, Darnihamedani and Terjesen (2020) examine the role of regulatory efficiency in entrepreneurial growth ambitions and strongly emphasize the need for further cross-country studies. Second, we link to research that shows the differences between social entrepreneurs in different countries (e.g., Defourny & Nyssens, 2010a; Nicolás et al., 2019). Stephan et al. (2015) and Hidalgo et al. (2020) show initial results in this direction, arguing that institutions influence the likelihood of social and commercial entrepreneurial motivations and entries. Hoogendoorn et al. (2016) add that cultural values in the form of a society's degree of self-expression lead to a higher proportion of social entrepreneurs.

In addition, our findings are consistent with those of Urban (2008), who shows that social entrepreneurs in less developed countries face challenges that do not allow for scalable solutions. Therefore, social entrepreneurs like Muhammad Yunus and his founding of the Grameen Bank seem to be an exception. The micro-social entrepreneurs supported by institutions like Grameen Bank are more likely to address local challenges to meet basic needs without having large growth ambitions. Third, our moderation findings can be explained from a welfare state perspective. Previous research suggests that social entrepreneurship differs even in highly developed countries.

The countries with the highest HDI (e.g., Norway or Switzerland) have highly developed welfare systems, which in turn may explain why social entrepreneurs in these countries may also have different, more global social missions and innovations than social entrepreneurs aiming to fill gaps in an immature welfare state at the national level.

6.7 Future directions and conclusion

The present chapter and the recommendations made from the study will encourage more in-depth research on this fortunate area of study. First and foremost, by calculating the number of jobs that social entrepreneurs hope to create over the next five years, this study assesses their aspirations for growth. Nonetheless, the current study was unable to examine additional metrics that social entrepreneurs strive to attain expansion, such as benevolence, fostering trust, acquiring new clients, and expanding equity. These growth aspiration metrics need to be taken into account by other academics.

Second, by using GEM (2015) in this study, other researchers will have the chance to test the same model on newly published datasets in the future. More updated datasets will be published in the upcoming years, allowing for even more opportunities for experimentation. With other dataset types, such as the Global Preference dataset, it is feasible to conduct a more quantitative examination of the published dataset. This study also encourages other researchers to gather information from recently formed social entrepreneurs who possess creative skills so that a qualitative study based on interviews can be conducted with them. Qualitative research based on interviews might provide new insights into the perspectives of social entrepreneurs regarding their assumptions around growth. Additionally, developing a questionnaire based on several criteria for measuring growth ambition is necessary. For instance, some social entrepreneurs aim to have a positive social impact, which they consider to be growth, while others have financial gain as a

growth ambition. Even if social aims are hard to measure, we nonetheless support more study that finds methods (like surveys) to look at social entrepreneurs' growth goals from a variety of angles.

Thirdly, ambition for growth might vary greatly depending on the circumstance. The study that was presented analyzed data from several countries, but it was unable to determine which nation's social entrepreneurs had greater ambitions for growth and which nation's commercial entrepreneurs had greater ambitions for growth. This is an intriguing finding that will be of interest to researchers in the future. Fourthly, sponsors, potential investors, and the general public lack knowledge about social enterprises, which leads to a lack of understanding of how social enterprises can advance in different directions and succeed (Hynes, 2009). This study also falls short of providing a thorough understanding of the subject. Future research could look into how social entrepreneurs pitch their growth ambitions to potential sponsors and investors.

Last but not least, trademarks and patents support the business's legalization and can be viewed as additional growth ambitions since they may directly foster goodwill. Social innovations by social entrepreneurs are less likely to be covered by certain intellectual property rights since they differ from commercial notions (Krlev et al., 2014). Thus, it will be fascinating to see if registering a trademark and obtaining copyrights may also be seen as the expansion of a social enterprise or if they are distinct from commercial enterprises. To sum up, social entrepreneurship is a promising future aspect for societies that will find better and less harmful ways to solve many social and economic problems that affect people, society, and the environment. Future research in the field of social entrepreneurship is needed to fill in the gaps regarding the relationship between ambitious goals for growth and realized growth.

7 Discussion and Conclusion

Abstract: *The concluding chapter consists of the final findings of this dissertation. Section 7.1 summarizes and explains the main findings of each chapter of the dissertation. Section 7.2 outlines the implications of these findings for academic scholars as well as practitioners. Finally, Section 7.3 discusses the limitations of the dissertation. This summarizes the final points of the dissertation.*

7.1 Summary of essential results

This section provides a summary of the main supporting evidence that we looked at for the study topic in this dissertation. Table 7.1 provides an overview of all the research issues discussed in the relevant chapters.

Table 7.1: Overview of the research questions addressed in the dissertation

Research questions		Answered in
RQ4.1	How prevalent are replication studies in the field of management?	Chapter 4
RQ4.2	What types and forms of replication studies are conducted?	Chapter 4
RQ4.3	What are the replication results?	Chapter 4
RQ4.4	When it comes to citation, how does replication affect the scientific area?	Chapter 4
RQ5.1	What are the literal replication findings of the Stephan et al. (2015) study?	Chapter 5
RQ5.2	How is the literal and constructive replication of Stephan et al. (2015) justified?	Chapter 5
RQ5.3	What is the finding of the extension of Stephan et al. (2015)?	Chapter 5
RQ6.1	How do social and traditional entrepreneurs differ in their growth ambitions?	Chapter 6
RQ6.2	What role does a country's level of development have in this relationship?	Chapter 6

Social entrepreneurship has drawn the attention of academics due to its hybrid objectivity and its magnifying influence on market growth, social impact, and innovative production. Nonetheless, academics support the notion that social entrepreneurship is primarily an intention-based activity, with a variety of determinants influencing an individual's decision to engage in social entrepreneurship. The primary objective of the present study is to examine the macro- and micro-level determinants that influence the occurrence of social entrepreneurship. Additionally, as moving forward into later phases of social entrepreneurship, this thesis provides an insightful view into the growth ambitions of social entrepreneurs at the micro-level. A portion of the study is devoted to empirically investigating research questions about the determinants and consequences of social entrepreneurship, while the other portion has taken inspiration from the work of Anderson et al. (2019). They encouraged the scholars to implement the replication and extension methodology to contribute and advance the knowledge in this area.

According to research questions, the existing corpus of work demonstrates a rather original research ideology employing a range of cutting-edge approaches. Additionally, rather than focusing solely on social entrepreneurship in general, this study offers specific instances of situations employing relevant statistical data. Research questions that aim to explore empirical understandings of social entrepreneurship at the macro level and the growth ambitions of social entrepreneurs at the micro level are the main focus of this research work. The idealization of replication research is a topic that has not received much attention; this dissertation highlights it. subsequently, the subject of how common replication studies are and how replication impacts management research has been looked into. To answer the topic of whether or not researchers should use replication studies as a methodology, this thesis will look into the matter.

As novel methodologies, literal replication, and constructive replication are justified to address preliminary questions about the impact of macro-level determinants on social

entrepreneurship. For this reason, the Stephan et al. (2015) study is replicated. Firsthand support for the definition of literal replication is provided by the identical sample, identical methodology specifications, and identical analysis techniques. Literal replication is done using the sample of 10,6484 individuals spread across 26 countries from the GEM dataset published in 2009 as part of the Stephan et al. (2015) study. Then, using a successful replication study, the same hypotheses from the Stephan et al. (2015) study are revised. The comprehensive analysis is conducted using the revised new dataset of 74,833 individuals classified in 20 countries from the GEM dataset published in 2015. The findings indicate that the study's conclusions remain highly significant even in the case of literal replication, but the outcomes of constructive replication indicate that they differ slightly from the findings of the literal replication study. The study conducted by Stephan et al. (2015) showed that institutional factors had a significant favorable impact on the prevalence of social entrepreneurship. A constructive replication analysis using a new, updated dataset and identical variables revealed that the primary driver of government activism is ineffective in promoting social entrepreneurship.

Given that a smaller number of countries are included in the study and that most of the data came from 2014 and 2015, this could be the case in a constructive replication with fewer favorable effects. Furthermore, there is a chance that the respondents drawn from the updated fresh dataset had distinct viewpoints. Because macro-level factors influencing social entrepreneurship are highly context- and time-dependent, this provides an answer to one of the research questions. Additionally, justify the research issues concerning reproducibility by pointing out that while literal replication can still confirm the results, constructive replication can alter if different alternatives are used in the study under the same assumption.

Moreover, this thesis explores the disparities in growth objectives between traditional and social entrepreneurship, as well as how the overall development of the country affects this

relationship. Substantial empirical research on the development of social entrepreneurship is offered to properly comprehend possible growth ambitions. We provide evidence to support the research question using data from the 2015 Global Entrepreneurship Monitor (GEM) special edition on social entrepreneurship. The data for the results came from observations of 12,695 entrepreneurs from 38 countries, of which 1,860 (14.7%) are social entrepreneurs. 18 of the 38 countries are classified as developing nations by the World Bank. The findings that have been previously published (e.g., Darnihamedani & Terjesen, 2020) are supported by this data. Lastly, the multi-level model results indicate that while country-level control variables yield non-significant results, individual-level control independent variables have an impact on the dependent variable. The results demonstrate that the growth ambitions of social entrepreneurs were significantly higher than those of commercial entrepreneurs. The findings of this investigation align with previous studies (Nicolás et al., 2018 and Estrin et al., 2013b are two instances). Moreover, studies show that this disparity is more pronounced in countries with high Human Development Indexes (HDI). The results also demonstrate that, in comparison to traditional entrepreneurship, the relationship between social entrepreneurship and growth ambitions is greatly moderated by the development of the country. In addition, Urban (2008) included supporting information that was fairly close to the findings reported in this dissertation.

The present research encompasses many tiers of interrelated research concerns and bolsters its findings with empirically grounded analysis. The present dissertation concludes by emphasizing the need for replication of earlier studies on social entrepreneurship that have been published. To do this, a systematic empirical analysis has been conducted. The current dissertation does a complete analysis of the nature, prevalence, and impacts of replication studies on the field of management. To begin answering the research question about the prevalence of replication studies, a thorough, systematic literature evaluation using the ABS list is carried out first. The

replication study sample collection (3,4, and 4* journals in the ABS list) and exclusion criteria established by Köhler and Cortina (2019) are adhered to an initial sample of 1352 replication studies in 52 journals (5.5% of 24,595 studies) by using keyword criteria with a time horizon of up to 2020. As a result, there are 734 independent studies and 608 dependent studies. By applying broader criteria, an independent sample of 266 studies is obtained. These findings demonstrate that independent replication studies are uncommon but vary between journals. These results support the current situation in the field of replication research, which has been published in multiple reputable publications and categorized into multiple sub-disciplines. Strict coding criteria are developed and applied to address the following question, resulting in five distinct types of replication studies.

The final independent replication research sample includes 160 quasi-random replication studies, 95 constructive replication studies, 3 regressive replication studies, 4 co-founded replication studies, and 4 literal replication studies. The quantity of studies that fit into the various replication study kinds reveals how frequently that particular type is published. Furthermore, a negative binomial regression analysis is carried out to obtain results on the main interactions between variables. Only a few significant correlations are found in the analysis between the features of the replication study and its citations; however, these correlations are usually stronger for the original research's variables. There is a significant main effect between the citation of original research and the citation of replication research. The results provide sufficient evidence to support the study subjects discussed in this dissertation (Maula & Stam, 2020; Köhler & Cortina, 2019).

7.2 Basic practical and theoretical implications

7.2.1 Theoretical implications

In many ways, this dissertation adds to the body of literature. First, by posing inquiries regarding social entrepreneurship, we can investigate potential areas for future literature. The prevalence of replication studies is then explored in terms of how it can hold important theoretical implications. The last contribution of this research is to strengthen the theoretical implications for the development goals of commercial and social entrepreneurship.

I) Social Entrepreneurship development over the years

In terms of different forms of entrepreneurship, the idea of social entrepreneurship is one of the more urgent research topics (Santos, 2012). The current dissertation summarizes and offers a thorough survey of the social entrepreneurship literature to help scholars have a better knowledge of the subject in more detail. Even though prior researchers have systematically and in-depth examined literature with a focus on social entrepreneurship (Hill et al., 2010; Choi & Majumdar, 2014; Saebi et al., 2019; Laurett et al., 2020). The definition of social entrepreneurship needs to be understood more thoroughly to determine whether it is warranted or whether it requires new foundations. In this way, the organizational structure of the dissertation offers up-to-date evidence that the background and definition of social entrepreneurship are founded on pre-defined pillars that are being updated by various scholars. Moreover, research work calls for an ongoing update of the determinants that influence social entrepreneurship (Sud et al., 2009; Stephan et al., 2015). A definitive update on the justification and solid bonding for social entrepreneurship is primarily attributable to the discussion in the dissertation. This debate, however, adds to prior research and finds a sizable number of homogenous and heterogeneous foundations for social entrepreneurship as well as components associated with the subject. Furthermore, this discussion is the first to

realize that innovative social entrepreneurship is an emerging theme and has the potential implication of providing outperformance for theory developments.

II) Status of Replication Studies

This dissertation therefore adds to understanding the need for further replication studies to be published in the field of social entrepreneurship as well as in other areas of management science. Given the complicated nature of the approach and the lack of datasets, the current literature confirms the necessity of literal replication (Hedges & Jacob, 2019a). Contrary to popular belief, constructive replication frequently occurs in published texts whereas accurate replication is uncommon (Pashler & Harris, 2012). The examination of the prevalence of replication studies in management research provided by this thesis facilitates a considerable implicative contribution to the theory. As evidenced by Held (2020), it is time to assess the standards of replication studies differently. Therefore, inspired by the research of Köhler and Cortina (2019), this dissertation contributes to the widespread dissemination of replication studies. This dissertation suggests a clear attribution, as a theoretical conclusion, that the prevalence of replication studies is still low (Maula & Stam, 2020; Köhler & Cortina, 2019). Additionally, it has been determined that constructive and quasi-random replication studies have a higher tendency to be published, however very few literal replications are published due to inadequate comprehension of replicated studies.

According to prior research, literal replications are challenging since there is little likelihood that they can be modified to improve repeatability, while constructive and quasi-random replications are more adaptable and can be changed (Stroebe & Strack, 2014; Mueller et al., 2019). Finally, it demonstrates that the variables involved in replication studies are dynamic (e.g., citation, number of authors, journal category, year of publishing, and type of replication study). For example, the results of replication studies are frequently not identical to those of the original

investigations. On a theoretical level, this thesis also suggests that citations are strong indicators for research investigations; if a replication study cites and discusses the original study, it has a stronger impact. Regression analysis provides the essential data and facts in the field of replication studies by incorporating all theoretical contributions for modern researchers.

By replicating the study of Stephan et al. (2015), first as literal replication and then as constructive replication, this dissertation demonstrates the use of replication studies. This study demonstrates the tactical selection of a published study that is reproducible or replicable. The replication of Stephan et al. (2015) provides a true description of how to replicate and expand published research, adding to the body of knowledge in that field. Additionally, Stephan et al. (2015) replication and extension of their work bring value to the correlation of institutional elements with social entrepreneurship on the one hand, and how to conduct replication studies in various forms on the other, has been accurately illustrated. The results of the constructive replication did not contradict the findings Stephan et al. (2015) confirmed in their study. This gives support to the idea that, as constructive replication demonstrates, the same institutional determinants' influence on social entrepreneurship has altered through time.

III) Evidence on Growth ambitions

The thesis examines the fundamental mechanisms relating to institutional dynamics concerning entrepreneurial growth ambition in response to contemporary calls (Baum & Locke, 2004; Estrin et al., 2013a; Efendic et al., 2015; Boudreaux et al., 2019; Capelleras et al., 2019; Darnihamedani & Terjesen, 2020). Dynamics may differ or be comparable when it comes to the growth aspirations of social entrepreneurs in comparison to commercial entrepreneurship (Austin, Stevenson, & Wei-Skillern, 2006). This thesis ensures to construct the counterview to the existing research by building major differences, we develop theoretical underpinnings on the different roles

of social and commercial entrepreneurs, and we advance the literature on fundamental mechanisms understanding the interaction between elements at the individual and national levels and the growth ambitions of entrepreneurs. For instance, conceptual parallels and contrasts between social and traditional entrepreneurship were outlined by Austin et al. (2006).

Comparatively, to commercial entrepreneurship, where factors at the individual rather than national level have a greater impact, social entrepreneurship is more likely to be connected with high growth ambition. The empirical results of this thesis have shown the importance of regional status in determining the growth ambition of traditional and social entrepreneurs (Verheul & Van, 2011; Defourny & Kim, 2011; Močnik & Širec, 2016; Hazenberg et al., 2016; Kachlami et al., 2018). This thesis strengthens the empirical findings that the country's level of development affects the growing inspiration of traditional and social entrepreneurship by examining the moderating impact. It is also well-understood and recorded how social entrepreneurs play a role in national development (Borzaga et al., 2001; Laville et al., 2006; Mair & Schoen, 2007; Kachlami, 2014; Puumalainen et al., 2015). Overall, this thesis makes major theoretical contributions, has consequences for the literature already in existence, and offers fresh ideas to strengthen theoretical foundations.

7.2.2 Practical implications

Both theoretical and practical consequences can be drawn from the findings offered in this dissertation. Addressees include investors as well as researchers, business owners, legislators, and non-profit managers. All of the aforementioned groups are helped by the dissertation's findings to better grasp the study that has been discussed.

I) Research Scholars

The practical ramifications for researchers and journal editors are highlighted in this dissertation. A discussion of the history and definition of social entrepreneurship is the first step. It demonstrates a dynamic idealization of the previously justified definition of SE while also making it clear that, despite previously established points, the definition of social entrepreneurship is still evolving and offers room for practical implications in the research work. Moreover, a fine level of investigation is done into social entrepreneurship determinants. Further advising, we think that initiating hybrid social enterprises with the aid of multilevel analysis will be another expansion in the future as authors to date have mostly focused on a single level of analysis (Saebi et al., 2019).

The results of this study and earlier studies show how tested determinants have important practical underpinnings. Similar to that, innovative social entrepreneurship is a new field of study that is developing slowly but has considerable promise. The publication of replication studies in the field of management is urgently needed, which is another way in which this thesis increases the practical understanding of research academics and journal editors. Since acceptance of replication studies by editorial boards is thought to be relatively resistive, the practical implication of this thesis is to give journal editors flexible acceptance and criteria for publication of research investigations (Tipu & Ryan, 2021). On the other hand, recent study shows that researchers' ability to replicate their own or other researchers' findings has real-world applications.

II) Entrepreneurs, investors, and policymakers

We feel that more primary and basic education can have a greater influence than higher levels of education, and this study offers information for scholars to move their focus to lower levels of education like school education (Brüne & Lutz, 2020). Given that each economy has a

unique culture, this thesis urges further investigation of the primary education system to foster social entrepreneurship (Van de Werfhorst and Mijs, 2010; DiPrete et al., 2017). The investigation and evaluation of social entrepreneurship activities using more technological competence is a further factor that academics should take into account (Gupta et al., 2020). The financial industry as well as many other sectors have proven to benefit from a variety of soft skills and software. We bring up this argument to encourage academics to use social entrepreneurship research criteria on a more technical and software-focused level. Through empirical comparative study of various economies, we assist investors, policymakers, and individuals with an entrepreneurial mindset. Policymakers and other social entrepreneurship stakeholders should consider the numerous implications of this study.

To promote social entrepreneurs and their social innovation, new governmental and non-governmental programs are mushrooming all over the world, as was suggested previously. Social entrepreneurship stakeholders must comprehend the elements affecting their growth to more effectively adapt these initiatives. Therefore, given that institutional elements emerge at different rates and that growth intentions are closely tied to actual growth, our findings offer crucial insights in this regard. Updating the Stephan et al. (2015) analysis, which demonstrates that institutional impacts have diminished over time, makes the impact clear. Furthermore, our findings, which demonstrate that social entrepreneurs have larger growth expectations than commercial entrepreneurs, highlight the necessity of altering the way people think on a global scale to help entrepreneurs.

While traditional fundraising and financing are supported through programs at the moment, entrepreneurship is the main focus (e.g., venture capital or traditional business incubation). However, there are many different perspectives on investments and other financial initiatives for social entrepreneurship. Our findings highlight the urgency of expanding these sectors quickly.

Programs that promote social companies that are expanding quickly, for instance, might be appropriate for generating both high financial value and social value for society. Last but not least, the variations in country development imply that social entrepreneurs may profit from various support systems in various regions. As an illustration, social entrepreneurs in underdeveloped nations can require improved access to financial resources as well as training programs that show them how to scale their businesses to set higher growth goals.

7.3 Basic limitations of the research

This dissertation includes research limitations, just like all other research projects. In the first place, this thesis just explored the definition of social entrepreneurship; an empirical methodological approach to the literature review is important (Pan, 2016), therefore the discussion is not supported by any relevant empirical data. Similarly, a thorough quantitative and qualitative examination of the literature is needed to support the arguments made regarding the factors that influence social entrepreneurship and the newly emerging field of innovative social entrepreneurship. Furthermore, the current discussion of social entrepreneurship as it is presented in the thesis is constrained in its coverage of several dimensions and perspectives. Deliberate consideration is insufficient because the field of social entrepreneurship is expanding and so is the discussion in the literature.

Second, in the field of social science, editorial boards appear to approve fewer replication studies (Kane, 1984; Madden et al., 1995, Easley et al., 2013). As a result, this dissertation makes an effort to cover the fundamentally important foundations of replication studies, but it is nonetheless restricted in its treatment of the standards that editorial boards need to uphold for replication studies to be published. The number of replication studies that are submitted to journals each year is also not supported by any evidence in the current thesis.

Thirdly, the study was replicated in the current dissertation to show how replication can be both literal and constructive. It is a literal replication of Stephan et al. (2015) study and includes empirical analysis at the country level without a methodological assessment at the individual level, which is typical for GEM datasets. The likelihood of modification is lower for literal replication and the process is the same (Köhler & Cortina, 2019). Contrarily, constructive replication allows for alteration, yet in the current investigation, Stephan et al. (2015)'s constructive replication was unable to corroborate the earlier findings. Constructive replication provided a questionable explanation because changes to the results occurred with a smaller sample size than the replicated sample.

Finally, our study has some unique limitations, just like other studies that use GEM data. Our dependent variable, "growth ambitions," which we gauge by the number of people each entrepreneur plans to hire, is the subject of the first restriction. Wallin et al. (2016) contend that growth objectives are complicated and should be studied using a socially constructed approach, even though earlier research has used a similar methodology (e.g., Estrin et al., 2013b; Szerb & Vörös, 2021). Given that social entrepreneurs and their hybrid businesses typically pursue objectives other than purely financial ones, this logic should hold especially true for them (Vickers & Lyon, 2014). Therefore, social goals are equally important to achieving financial ones as they are. In the sphere of social entrepreneurship, the connection between growth aspirations and realized growth is still unexplored. Additionally, since we only pay attention to the HDI, our understanding of the degree of progress in other nations is limited. An earlier study on aspirations for commercial entrepreneurial growth looked at how certain institutional elements or legal requirements either encouraged aspirations or prevented them (e.g., Darnihamedani & Terjesen, 2020; Troilo, 2011).

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Appendix

The appendix lists the included studies in the analyses of Chapter 4.

Table A.1: Variables and coding (Chapter 4)

Variables	Operationalization
Replication type	
Type: literal.	Dummy variable; replication directly mirrors the original study.
Type: constructive	Dummy variable; replication maintains the characteristics of the original study but enhances it in some way.
Type: quasirandom	Dummy variable; replication differs from the original study without clearly enhancing it.
Type: confounded	Dummy variable; replication where the external validity is lower but the internal validity has improved as compared to the original study.
Type: quasirandom	Dummy variable; replication is similar regarding all quality dimensions of the original study except for one where it is worse.
Replication outcome	
Outcome: not replicated	
Outcome: partly repl.	Dummy; none of the findings of the original study is replicated.
Outcome: fully replicated	Dummy; a subset of the findings of the original study are replicated.
Variables used in the coding process	
Quality of sample	Dummy; all findings of the original study are replicated.
Quality of variables	The sample in the replication study is (1) better, (2) worse, (3) same/similar, or (4) different but neither better nor worse as compared to the original study.
Quality of measurement	The (in-)dependent variables used are (1) better, (2) worse, (3) same/similar, or (4) different but neither better nor worse in the replication as compared to the original study.
Quality of the empirical analysis	The measurement of the central constructs is (1) better, (2) worse, (3) same/similar, or (4) different but neither better nor worse in the replication study as compared to the original study.
Control variables: characteristics of the replication study	The quality of the empirical analysis in the replication study is (1) better, (2) worse, (3) same/similar, or (4) different but neither better nor worse in the replication as compared to the original study.
Citations replication study	
Sub-discipline: ETHICS-CSR-MAN	
Sub-discipline: INNOV	Number of citations that the replication study received on Google Scholar until 2020 (collected in May 2021).
Sub-discipline: IB&AREA	Dummy; sub-discipline general management, ethics, and social responsibility.
Sub-discipline: OR&MANSCI	Dummy; sub-discipline international business and studies area.
Sub-discipline: ORG STUD	Dummy; sub-discipline innovation.
Sub-discipline: PSYCH (WOP-OB)	Dummy; sub-discipline operations research and management science.
Sub-discipline: STRAT	Dummy; sub-discipline organization studies.
Sub-discipline: ENT-SBM	Dummy; sub-discipline psychology (organizational).
Publication lag	Dummy; sub-discipline strategy.
Control variables: characteristics of the original study	Dummy; sub-discipline entrepreneurship and small business management.
Article age original study	The time between the publication of the replication study and the original study in years
Same journal	Age of the original study in years as of 2021.
Citations original study (log.)	A dummy variable that captures whether the original study was published in the same journal as the replication studies
# Author's original study	Number of citations that the original study received on Google Scholar until April 2021 (In logged form).
	Number of authors on the original study. The variable is categorical (i.e., 1, 2, 3, 4, 5, 6 or more).

Table A.2: Study list (Chapter 4)

Author	Year	Journal	Outcome
Jeffrey et al.	2016	Entrepreneurship and Regional Development	partly replicated
McCline et al.	2000	Entrepreneurship, Theory and Practice	replicated
Sharma et al.	2000	Family Business Review	partly replicated
Bonilla et al.	2010	Family Business Review	replicated
Holt et al.	2010	Family Business Review	partly replicated
Wach et al.	2016	International Small Business Journal	partly replicated
Fried et al.	1998	Journal of Business Venturing	replicated
Rauch et al.	2016	Journal of Business Venturing	replicated
Menzies et al.	2007	Journal of Small Business Management	partly replicated
Arend et al.	2016	Journal of Small Business Management	replicated
Norton	1992	Small Business Economics	replicated
Van der Loos et al.	2011	Small Business Economics	not replicated
Kiefer et al.	2020	Small Business Economics	partly replicated
Larson et al.	1974	Academy of Management Journal	not replicated
Ondrack	1974	Academy of Management Journal	not replicated
Greene	1979	Academy of Management Journal	replicated
Grinyer et al.	1980	Academy of Management Journal	replicated
Paulson	1980	Academy of Management Journal	replicated
Stevens et al.	1980	Academy of Management Journal	replicated
Saunders et al.	1982	Academy of Management Journal	partially
Vecchio	1985	Academy of Management Journal	not replicated
Allen et al.	1990	Academy of Management Journal	replicated
Kline et al.	1991	Academy of Management Journal	replicated
Jegers	1991	Academy of Management Journal	replicated
Lee et al.	1999	Academy of Management Journal	replicated
Gabriel et al.	2015	Academy of Management Journal	partly replicated
Inkson	1970	Administrative Science Quarterly	replicated
Child	1972	Administrative Science Quarterly	partially
Rasheed et al.	1992	British Journal of Management	partly replicated
Sadler-Smith et al.	2000	British Journal of Management	replicated
Van Dick et al.	2006	British Journal of Management	partly replicated
Papadakis et al.	2010	British Journal of Management	partly replicated
Main et al.	2018	British Journal of Management	partly replicated
Bednall et al.	2018	British Journal of Management	partly replicated
Meijer et al.	2005	Business & Society	partly replicated
D'amato et al.	2020	European Management Review	replicated
Bucic et al.	2012	Journal of Business Ethics	replicated
Strong et al.	1992	Journal of Business Ethics	partly replicated
Chung et al.	2003	Journal of Business Ethics	replicated

Table A.2: (continued)

Galbraith et al.	1993	Journal of Business Ethics	partly replicated
Akaah	1989	Journal of Business Ethics	partly replicated
Peterson et al.	2001	Journal of Business Ethics	replicated
Moon et al.	2010	Journal of Business Ethics	replicated
Cohen et al.	1993	Journal of Business Ethics	replicated
Kalshoven et al.	2011	Journal of Business Ethics	partly replicated
Xu et al.	2015	Journal of Business Ethics	replicated
Nguyen et al.	2008	Journal of Business Ethics	replicated
Everett et al.	1996	Journal of Business Ethics	replicated
Cupach et al.	2002	Journal of Business Ethics	partly replicated
Andersen et al.	2015	Journal of Business Ethics	replicated
Beard	2003	Journal of Business Ethics	partly replicated
Chang et al.	2007	Journal of Business Ethics	partly replicated
Etheredge	1999	Journal of Business Ethics	not replicated
Haberstroh et al.	2017	Journal of Business Ethics	replicated
Marcus et al.	2019	Journal of Business Ethics	replicated
Murphy et al.	2019	Journal of Business Ethics	not replicated
Small	1992	Journal of Business Ethics	partly replicated
Weber	2015	Journal of Business Ethics	partly replicated
Salam	2009	Journal of Business Ethics	partly replicated
Farshid et al.	2019	Journal of Business Research	partly replicated
Riefler & Diamantopoulos	2009	Journal of Business Research	partly replicated
Barksdale & Werner	2001	Journal of Business Research	partly replicated
Flynn et al.	1994	Journal of Business Research	partly replicated
Bachleitner & Zins	1999	Journal of Business Research	partly replicated
Rajabi et al.	2019	Journal of Business Research	partly replicated
Akbar	2019	Journal of Business Research	partly replicated
Ahearne et al.	2000	Journal of Business Research	replicated
Balaji et al.	2017	Journal of Business Research	replicated
Brady et al.	2002	Journal of Business Research	replicated
Dotson & Hyatt	2000	Journal of Business Research	partly replicated
Harrigan et al.	2018	Journal of Business Research	partly replicated
Johnston et al.	1988	Journal of Business Research	replicated
Lee & Olshavsky	1997	Journal of Business Research	not replicated
Macdonald & Sharp	2000	Journal of Business Research	partly replicated
Merrilees & Miller	1999	Journal of Business Research	partly replicated
Palich et al.	2000	Journal of Business Research	replicated
Peck & Childers	2006	Journal of Business Research	replicated
Shao & Webber	2006	Journal of Business Research	not replicated
Shimp & Moody	2000	Journal of Business Research	not replicated

Table A.2: (continued)

Boles et al.	2000	Journal of Business Research	replicated
Gabbott & Hogg	1999	Journal of Business Research	partly replicated
Walsh et al.	2015	Journal of Business Research	replicated
White & Truly	1989	Journal of Business Research	not replicated
Woodside et al.	1999	Journal of Business Research	replicated
Wu et al.	2016	Journal of Business Research	partly replicated
Fulk et al.	1985	Journal of Business Research	replicated
Kapferer & ValetteFlorence	2018	Journal of Business Research	partly replicated
Sajtos et al.	2020	Journal of Business Research	partly replicated
Obilo et al.	2020	Journal of Business Research	replicated
Iyer & Griffin	2020	Journal of Business Research	not replicated
Benraiss-Noailles & Viot	2020	Journal of Business Research	partly replicated
Holbrook & Gardner	1998	Journal of Business Research	replicated
Lin et al.	2012	Journal of Business Research	replicated
Estes et al.	2018	Journal of Business Research	replicated
Tran & Paparoidamis	2019	Journal of Business Research	replicated
Blackburn	1981	Journal of Management	not replicated
Fry et al.	1980	Journal of Management	partly replicated
Gordon et al.	2000	Journal of Management	partly replicated
Herbert & Matthews	1977	Journal of Management	replicated
Lee et al.	1997	Journal of Management	partly replicated
McClelland et al.	2010	Journal of Management	partially
Morrison & Roth	1993	Journal of Management	partly replicated
Thomas & Ramaswamy	1993	Journal of Management	not replicated
Victor & Blackburn	1987	Journal of Management Studies	partly replicated
Liu et al.	2012	Journal of Management Studies	partly replicated
Martinko & Gardner	1990	Journal of Management Studies	partly replicated
Tsang	2002	Journal of Management Studies	partly replicated
Ettlie	2007	Journal of Product Innovation Management	replicated
Hamdi-Kidar	2019	Journal of Product Innovation Management	not replicated
Cloodt et al.	2006	Research Policy	partly replicated
Stockstrom et al.	2016	Research Policy	replicated
Irvine et al.	1987	Research Policy	partly replicated
Tong et al.	2018	Research Policy	replicated
Galbreath	2005	Technovation	partly replicated
Aitken et al.	1996	Asia Pacific Journal of Management	partly replicated
Hsueh & Kang	2007	Asia Pacific Journal of Management	partly replicated
Ju & Zhao	2009	Asia Pacific Journal of Management	replicated
Su et al.	2009	Asia Pacific Journal of Management	replicated
Treviño et al.	2019	Asia Pacific Journal of Management	not (really) replicated
Diamantopoulos & Horncastle	1997	International Business Review	not replicated

Table A.2: (continued)

Osegowitsch & Sammartino	2016	Journal of International Business Studies	partly replicated
Makino & Neupert	2000	Journal of International Business Studies	not replicated
Autio et al.	2000	Journal of International Business Studies	not replicated
Abdi & Aulakh	2010	Journal of International Business Studies	partially
Ramaswamy et al.	2010	Journal of International Business Studies	replicated
Bruno & Shin	2016	Journal of International Business Studies	partly replicated
Farh et al.	1998	Journal of International Business Studies	partly replicated
McGuire et al.	2016	Journal of International Management	partly replicated
Peng et al.	2007	Journal of World Business	not replicated
Johnson et al.	2016	Journal of World Business	replicated
Lev & Yahalomi	1992	Management International Review	partly replicated
Sullivan	2011	Management International Review	not replicated
Hoopes	2020	Management International Review	replicated
Delios & Beamish	1974	Management International Review	not replicated
Li et al.	1974	Management International Review	partly replicated
Shirodkar & Konara	1979	Management International Review	not replicated
Blagoeva et al.	1980	Management International Review	partly replicated
Guetzkow & Simon	1980	Management Science	partly replicated
Cen et al.	1980	Management Science	partly replicated
Weber & Milliman	1982	Management Science	partly replicated
Read et al.	1985	Management Science	replicated
Kurke & Aldrich	1990	Management Science	partly replicated
Lehner	1991	Management Science	partly replicated
Schwarz & Johnson	1991	Management Science	partly replicated
Johnson & Schkade	1999	Management Science	not replicated
Reimann	2015	Human Relations	partly replicated
Kaplan et al.	1970	Human Relations	replicated
Bramlette & Tucker	1972	Human Relations	not replicated
Ebeling & King	1992	Human Relations	partly replicated
Evans & Ondrack	2000	Human Relations	not replicated
Klenke-Hamel & Mathieu	2006	Human Relations	partly replicated
Hardy & Barkham	2010	Human Relations	partly replicated
Chew & Putti	2018	Human Relations	partly replicated
Aryee & Luk	2018	Human Relations	partly replicated
Kacmar et al.	2005	Human Relations	partly replicated
Evans & Ondrack	2020	Human Relations	partly replicated
Taft	2012	Human Relations	partly replicated
Eden	1992	Leadership Quarterly	replicated
Schriesheim et al.	2003	Leadership Quarterly	partly replicated
Breevaart & de Vries	1993	Leadership Quarterly	partly replicated
Davis & Gardner	1989	Leadership Quarterly	partly replicated

Table A.2: (continued)

Pillai et al.	2003	Leadership Quarterly	replicated
Ford & Seers	2008	Leadership Quarterly	replicated
Halverson et al.	2006	Leadership Quarterly	partly replicated
Hopp,Wentzel & Rose	2004	Leadership Quarterly	partly replicated
Hopp & Pruschak	2020	The Leadership Quarterly	not replicated
Boisot & Liang	2020	The Leadership Quarterly	partly replicated
Camina	1992	Organization Studies	partly replicated
de Kervasdoué	2000	Organization Studies	partly replicated
Singh	1981	Organization Studies	replicated
Glaister & Buckley	1990	Organization Studies	partly replicated
Sharp et al.	1998	Organization Studies	partly replicated
Calantone & Roger	2013	Organizational Research Methods	partly replicated
González-Romá & Lloret	2014	Organizational Research Methods	not replicated
González-Romá & Lloret	1998	Applied Psychology: An International	partly replicated
Marcus	2003	Review	partly replicated
Chambel & Curral	2005	Applied Psychology: An International	replicated
Sowinski et al.	2008	Review	replicated
Zacher & Rudolph	2019	Applied Psychology: An International	not replicated
Cannon-Bowers et al.	1998	Review	partly replicated
Percival & Loeb	1980	European Journal of Work and	replicated
Eisma et a.	2020	Organizational Psychology	partly replicated
Kortum et al.	2020	European Journal of Work and	partly replicated
Neilson et al.	2020	Organizational Psychology	replicated
Blanton et al.,	2015	Human Factor	not replicated
De Wit et al.	2012	Human Factor	partly replicated
Judge et al.	2013	Human Factor	partly replicated
Williams & O'Boyle	2015	Human Factor	partly replicated
Carson et al.	1998	Human Factor	not replicated
Piotrowski et al.	1989	Journal of Applied Psychology	partly replicated
Mathieu & Farr	1991	Journal of Applied Psychology	replicated
Idaszak & Drasgow	1987	Journal of Applied Psychology	replicated
Brief & Aldag	1975	Journal of Applied Psychology	partly replicated
Bing et al.	2004	Journal of Applied Psychology	partly replicated
Bird & Fisher	1986	Journal of Applied Psychology	replicated
Booth-Kewley et al.	1992	Journal of Applied Psychology	replicated
Bullock & Svyantek	1985	Journal of Applied Psychology	not replicated
Carbonell	1984	Journal of Applied Psychology	not replicated
Edwards et al.	2000	Journal of Applied Psychology	replicated
Ferris	1985	Journal of Applied Psychology	partly replicated

Table A.2: (continued)

Huck & Gleason	1974	Journal of Applied Psychology	replicated
Izraeli	1985	Journal of Applied Psychology	replicated
Kelloway & Watts	1994	Journal of Applied Psychology	not replicated
Lautenschlager & Shaffer	1987	Journal of Applied Psychology	replicated
Salamin & Hom	2005	Journal of Applied Psychology	partly replicated
Stewart & Shapiro	2000	Journal of Applied Psychology	partly replicated
Sturman & Trevor	2001	Journal of Applied Psychology	partly replicated
Tan & Aryee	2002	Journal of Applied Psychology	partly replicated
Waldman & Avolio	1989	Journal of Applied Psychology	partly replicated
Walton et al.	1979	Journal of Applied Psychology	not replicated
Weyman & Clarke	2003	Journal of Applied Psychology	not replicated
Wiens et al.	1969	Journal of Applied Psychology	partly replicated
Yukl & Falbe	1990	Journal of Applied Psychology	replicated
Ziegert & Hanges	2005	Journal of Applied Psychology	partly replicated
Brief & Aldag	1975	Journal of Applied Psychology	partly replicated
Morrow & McElroy	1981	Journal of Applied Psychology	replicated
Miller et al.	2011	Journal of Managerial Psychology	replicated
Ter Doest & De Jonge	2006	Journal of Occupational and Organizational	partly replicated
Miller & Gallagher	2009	Psychology	not replicated
Lievens & Van Keer	2001	Journal of Occupational and Organizational	partly replicated
Brough et al.	2005	Psychology	partly replicated
Clegg et al.	2002	Journal of Occupational and Organizational	replicated
Mathews & Shepherd	2002	Psychology	partly replicated
Meyer et al.	2007	Journal of Occupational and Organizational	partly replicated
Spencer et al.	1983	Psychology	partly replicated
Vinokur et al.	1999	Journal of occupational and organizational	partly replicated
Vandenberg & Scarpello	1994	psychology	partly replicated
Lee & Gillen	1989	Journal of Occupational and Organizational	replicated
Barling & Charbonneau	1992	Psychology	not replicated
Smith & Brannick	1990	Journal of Occupational and Organizational	partly replicated
Vandenberghe	1999	Psychology	partly replicated
Gabriel et al.	2019	Journal of Occupational and Organizational	replicated
Conway et al.	2011	Psychology	partly replicated
Maher et al.	2018	Journal of Organizational Behavior	partly replicated
Yanico & Mihlbauer	1983	Journal of Organizational Behavior	replicated
Thomas & Neal	1978	Journal of Organizational Behavior	partly replicated
Wang et al.	2017	Journal of Organizational Behavior	partly replicated
Dodd et al.	2019	Journal of Organizational Behavior	partly replicated
Carson	1998	Journal of Organizational Behavior	partly replicated
Cesari et al.	1982	Journal of Vocational Behavior	replicated
Connelly et al.	2007	Journal of Vocational Behavior	not replicated

Table A.2: (continued)

Curry & Walling	1984	Journal of Vocational Behavior	replicated
Erwin	1982	Journal of Vocational Behavior	replicated
DeWinne et al.	1978	Journal of Vocational Behavior	partly replicated
Lent et al.	2010	Journal of Vocational Behavior	not replicated
Neimeyer et al.	1991	Journal of Vocational Behavior	replicated
Obschonka et al.	2013	Journal of Vocational Behavior	replicated
Ornstein & Isabella	1990	Journal of Vocational Behavior	partly replicated
Taylor & Popma	1990	Journal of Vocational Behavior	partly replicated
Whiston et al.	2017	Journal of Vocational Behavior	replicated
Szura & Vermillion	1975	Journal of Vocational Behavior	partly replicated
Lefkowitz et al.	1984	Journal of Vocational Behavior	partly replicated
Mansfield	1973	Journal of Vocational Behavior	partly replicated
Lamb & Prediger	1983	Journal of Vocational Behavior	partly replicated
Frone	2018	Journal of Vocational Behavior	replicated
Gutek & Winter	1992	Journal of Vocational Behavior	replicated
González-Vallejo & Moran	2001	Organizational Behavior and Human Decision	partly replicated
Huizenga et al.	2012	Processes	replicated
Zeelenberg et al.	1998	Organizational Behavior and Human Decision	not replicated
Taylor	1995	Processes	replicated
Sieck & Yates	1997	Organizational Behavior and Human Decision	partly replicated
Werner & Bolino	1997	Processes	partly replicated
Sauser JR & Pond	1981	Organizational Behavior and Human Decision	replicated
Huffcutt et al.	2001	Processes	not replicated
McManus & Kelly	1999	Organizational Behavior and Human Decision	partly replicated
CORNELIUS III et al.	1984	Processes	replicated
Dreher et al.	2019	Personnel Psychology	partly replicated
Sackett	1982	Personnel Psychology	partly replicated
McManus & Kelly	1999	Personnel Psychology	not replicated
Penzer	1969	Personnel Psychology	replicated
Sutton & Porter	1968	Personnel Psychology	replicated
Jex & Spector	1996	Personnel Psychology	not replicated
Taris et al.	1999	Personnel Psychology	replicated
Beugelsdijk et al.	2015	Personnel Psychology	replicated
Snyder & Glueck	1980	Personnel Psychology	replicated
Garriga et al.	2013	Personnel Psychology	partly replicated
Lane et al.	1998	Personnel Psychology	not replicated
Acquaah	2007	Work and Stress	replicated
Miller & Yang	2016	Work and Stress	replicated
Marlin et al.	1994	Global Strategy Journal	partly replicated
Wiseman & Bromiley	1991	Long Range Planning	partly replicated
Barker & Mone	1994	Strategic Management Journal	not replicated

Table A.2: (continued)

Finkelstein	1997	Strategic Management Journal	replicated
Berry & Kaul	2016	Strategic Management Journal	not replicated
Boyd et al.	2005	Strategic Management Journal	not replicated
Certo et al.	2017	Strategic Management Journal	not replicated
Chadwick et al.	2016	Strategic Management Journal	replicated
Criscuolo et al.	2019	Strategic Management Journal	not replicated
Durand et al.	2019	Strategic Management Journal	replicated
Ghosh et al.	2016	Strategic Management Journal	partly replicated
Chang et al.	2016	Strategic Management Journal	partly replicated
Goldfarb et al.	2018	Strategic Management Journal	replicated
Gupta et al.	2018	Strategic Management Journal	not replicated
Howard et al.	2016	Strategic Management Journal	partly replicated
Julian et al.	2017	Strategic Management Journal	not replicated
Kalnins	2016	Strategic Management Journal	partly replicated
Mariotti et al.	2019	Strategic Management Journal	replicated
Miller & Yang	2016	Strategic Management Journal	replicated
Quigley & Graffin	2017	Strategic Management Journal	not replicated
Colombo & Shafi	2015	Strategic Management Journal	partially
Tsang & Yamanoi	2016	Strategic Management Journal	not replicated
Zhao & Murrell	2016	Strategic Management Journal	not replicated
Lane et al.	2001	Strategic Management Journal	replicated
Becerra et al.	2020	Strategic Management Journal	partly replicated
Minefee et al.	2020	Strategic Management Journal	not replicated
McNamara et al.	2005	Strategic Management Journal	not replicated
Gong et al.	2019	Strategic Organization	partly replicated
Tsang et al.	2005	International Business Review	partly replicated
Giberson et al.	2005	Journal of Applied Psychology	replicated
Heilman et al.	1989	Journal of Applied Psychology	partly replicated