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Social Entrepreneurial Intention:

An Empirical Study in Vietnam

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Publications

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- Tran, Anh T.P.; Nguyen, V.T; Nguyen, Q.M. (2013): Knowledge Sharing & Acquisition in Organizations: An empirical Study in Public and Private sector in Vietnam. *International Conference on Humanities and Social Sciences,* Khon Kaen, Thailand.
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- Tran, Anh T.P. (2007): About the Issue of the Computation of the Sale Management Process in Nano Joint Stock Company", *Vietnamese Journal of Economics and Development*. Special Issue, November.

Erklärung

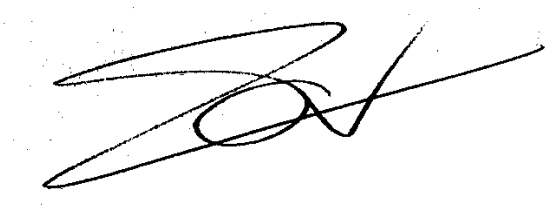
Hiermit erkläre ich gemäß §8 der Promotionsordnung des Fachbereichs 4: Informatik der Universität Koblenz-Landau,

- dass ich die vorliegende Dissertation mit dem Titel: „Social Entrepreneurial Intention: An Empirical Study in Vietnam“ selbst angefertigt und alle benutzten Hilfsmittel in der Arbeit angegeben habe,

- dass ich die Dissertation oder Teile der Dissertation noch nicht als Prüfungsarbeit für eine staatliche oder andere wissenschaftliche Prüfung eingereicht habe, und

- dass ich weder diese noch eine andere Abhandlung bei einer anderen Hochschule als Dissertation eingereicht habe.

Koblenz, den 10.06.2018



Thi Phuong Anh Tran

Executive Summary

Social entrepreneurship is a form of entrepreneurship that marries a social mission to a competitive value proposition. Notably, social entrepreneurship fosters a more equitable society by addressing social issues and trying to achieve an ongoing sustainable impact through a social mission rather than purely profit maximization. The topic of social entrepreneurship has appealed considerably to many different streams of research. The focus on understanding how and why entrepreneurs think and act is a significant justification for future research. Nevertheless, the theoretical examination of this phenomenon is in its infancy. Social entrepreneurship research is still largely phenomenon-driven. Specifically, Social Entrepreneurial Intention is in an early stage and lacks quantitative research. Therefore, this thesis proposes to address this need. The thesis' objectives are twofold: (1) develop a formation model for Social Entrepreneurial Intentions in general and (2) test the model by conducting an empirical study. Based on these objectives, the two research questions guiding the thesis are (1) what factors influence the intention of a person to become a social entrepreneur and (2) what relationships exist among these factors.

In order to answer these two research questions, this thesis uses purposeful research design, which is a combination of literature review and empirical study. The literature review is based on a comprehensive range of books, articles, and research papers published in leading academic journals and conference proceedings in different disciplines such as entrepreneurship, social entrepreneurship, entrepreneurship education, management, social psychology, and social economics. The empirical study is conducted via a survey of 600 last-year students from four universities in three regions in Vietnam: Hanoi, Da Nang, and Ho Chi Minh. The data are analyzed with SPSS-AMOS version 24, using screening data, scale development, exploratory factor analysis, and confirmation factor analysis. The thesis ascertains that Entrepreneurship Experience/Extra-curricular Activity, Role Model, Social Entrepreneurial Self-Efficacy, and Social Entrepreneurial Outcome Expectation directly and positively affect the intention of the Vietnamese students to be social entrepreneurs. Entrepreneurship Education also influences the Social Entrepreneurial Intention, but not directly, otherwise indirectly via Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Outcome Expectation. Similarly, Perceived Support has no direct relationship to Social Entrepreneurial Intention; however, it shows an indirect link via the mediator 'Social Entrepreneurial Outcome Expectation'. Furthermore, the dissertation brings new insights to the social entrepreneurship literature and provides important implications for practice. Limitations and future directions are also provided in the thesis.

Kurzfassung

Social Entrepreneurship ist eine Form des Unternehmertums, die einen sozialen Auftrag mit einem wettbewerbsfähigen Leistungsversprechen verbindet. Insbesondere fördert Social Entrepreneurship eine gerechtere Gesellschaft, indem es soziale Fragen anspricht und versucht, eine nachhaltige Wirkung durch eine soziale Mission und nicht durch reine Gewinnmaximierung zu erzielen. Das Thema Social Entrepreneurship hat sich auf viele verschiedene Forschungsrichtungen ausgeweitet. Der Fokus darauf, zu verstehen, wie und warum Unternehmer denken und handeln, bleibt eine wichtige Rechtfertigung für die zukünftige Forschung. Dennoch steckt die theoretische Auseinandersetzung mit diesem Phänomen noch in den Kinderschuhen. Sociale Entrepreneurship-Forschung ist nach wie vor weitgehend Phänomen getrieben. Insbesondere die Forschung zur sozialunternehmerischen Absicht befindet sich in einem frühen Stadium und es fehlt an quantitativer Forschung. Daher wird in dieser Arbeit vorgeschlagen, diese Notwendigkeit zu adressieren. Damit verfolgt die Dissertation zwei Ziele: (1) ein Modell für soziale unternehmerische Intentionen im Allgemeinen zu entwickeln und (2) das Modell durch eine empirische Studie zu testen. Auf der Grundlage dieser Ziele, sind die beiden leitenden Forschungsfragen: (1) Welche Faktoren beeinflussen die Absicht einer Person ein Social Entrepreneur zu werden? (2) Welche Beziehungen bestehen zwischen diesen Faktoren?

Um diese beiden Forschungsfragen zu beantworten, erscheint ein Forschungsdesign zielführend, das eine Kombination aus Literaturrecherche und empirischer Studie darstellt. Die Literaturrecherche basiert auf einem umfassenden Angebot an Büchern, Artikeln und Forschungsarbeiten, die in führenden akademischen Zeitschriften und Konferenzberichten in verschiedenen Disziplinen wie Entrepreneurship, Social Entrepreneurship Education, Management, Sozialpsychologie und Sozialökonomie veröffentlicht wurden. Die empirische Studie umfasst eine Befragung von 600 Studierenden im letzten Studienjahr an vier Universitäten in drei Regionen Vietnams: Hanoi, Da Nang und Ho Chi Minh. Die Daten werden mit SPSS-AMOS Version 24 unter Verwendung von Screening-Daten, Maßstabsentwicklung, explorativer und konfirmativer Faktorenanalyse analysiert. Die Dissertation findet heraus, dass Entrepreneurship Experience/Extra-curricular Activity, Role Model, Social Entrepreneurial Self-Efficacy und Social Entrepreneurial Outcome Expectation sich direkt und positiv auf die Absicht der vietnamesischen Studierenden auswirken, Social Entrepreneurs zu sein. Entrepreneurship Education beeinflusst auch die Social Entrepreneurial Intention, aber nicht direkt, sondern indirekt über Social Entrepreneurial Self-Efficacy und Social Entrepreneurial Outcome Expectation. Ebenso hat Perceived Support keinen direkten Bezug zu Social Entrepreneurial Intention, zeigt aber eine indirekte Verbindung über den Mediator Social Entrepreneurial Outcome Expectation. Darüber hinaus bringt die Dissertation neue Einblicke in die Social Entrepreneurship-Literatur und liefert wichtige Implikationen für die Praxis. Einschränkungen und zukünftige Richtungen sind auch in der Dissertation enthalten.

Acknowledgement

The Ph.D. period is a long and difficult journey, with many ups and downs over time. However, it provides me a great opportunity to gain knowledge and to learn how to be a professional researcher in academia. Today, I finish my thesis, and I am so happy to write notes of thanks to everyone who has supported and motivated me.

My first acknowledgement with special thanks goes to the Ministry of Education and Training, Vietnam, for granting me a scholarship to pursue my dream of doing a Ph.D. in Germany. In addition, I would like to thank my university, National Economics University, Hanoi, Vietnam, where I did my bachelor and master degrees and where I have been working as a lecturer, for allowing me to embark upon my further Ph.D. study.

This thesis is dedicated to my entire family for their encouragement and endless love. My heartfelt appreciation goes to my parents, who spent their whole life raising me and inspiring me to excel academically. My love and heartfelt thanks are for my children Sofia, Kai, William, and the upcoming baby in September 2018 for their love and empathy. I saw in their eyes sadness but sympathy whenever I came back late from the office, whenever I had no time to eat or play with them or to go out with them for a walk. I am in debt to their deep understanding. My eternal appreciation is also directed to my partner Christoph, who is always a shoulder for me to rely on whenever I need one. He raises me up when I am down. He sacrificed his job to stay home to care for all of my children, allowing me to spend 100% of my time and energy on this thesis. I am also in debt to him for this incredible support and sacrifice.

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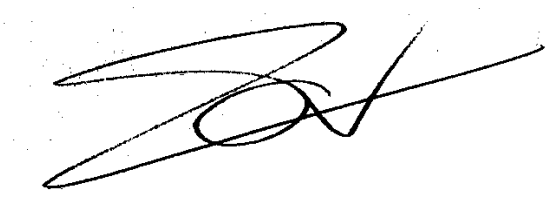

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List of Abbreviations

Abbreviation	Description
AGFI	Adjusted Goodness of Fit Index
AVE	Average Variance Extracted
C.R.	Critical Ratio
CFA	Confirmation Factor Analysis
CFI	Competitive Fit Index
Cmin	Chi-square Index
Cmin/df	Relative Chi-square
CSIP	Centre for Social Initiative Promotion
CSR	Corporate Social Responsiblity
Df	Degrees of Freedom
DTU	Duy Tan University, Vietnam
Ea	Entrepreneurship Extra-curricular Activity
Ed	Entrepreneurship Education
EFA	Exploratory Factor Analysis
EIM	Entrepreneurial Intention Model
EPM	Entrepreneurial Potential Model
Ex	Entrepreneurship Experience
GFI	Goodness of Fit Index
KMO	Kaiser-Meyer-Olkin
n.s.	Not Significant
NEU	National Economics University, Vietnam
NFI	Normalized Fit Index
NPO	Non-Profit Organization
OE	Social Entrepreneurial Outcome Expectation
Ps	Perceived Support
Rm	Role Model

RMS	Root Mean Square
RMSR	Root Mean Square Residual
S.E.	Standard Error
SCCT	Social Cognitive Career Theory
SEE	Shapero's Entrepreneurial Event Model
SEi	Social Entrepreneurial Intention
Self	Social Entrepreneurial Self-Efficacy
SEM	Structural Equation Modeling
Spark Vietnam	Spark Vietnam Center for Social Entrepreneurship Development
SPSS	Statistical Package for the Social Sciences
TLI	Tucker-Lewis Index
TPB	Theory of Planned Behavior
TPBEM	Theory of Planned Behavior Entrepreneurial Model
UD	University of Danang, Vietnam
UEH	University of Economics, Ho Chi Minh city, Vietnam

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Chapter 1. INTRODUCTION

1.1 Motivation and Research Need

1.1.1 Why Social Entrepreneurship

Social entrepreneurship is understood as a process that "creates innovative solutions to immediate social problems and mobilizes the ideas, capacities, resources, and social arrangements required for sustainable social transformations" (Alvord, Brown, & Letts, 2004, p.262). Social entrepreneurs (e.g., Yunus Muhammad) "use the principles of enterprise – business principles and even capitalism itself – to create social change by establishing and managing a venture" (Durieux, Mark B. & Stebbins, Robert A., 2010, p.10). To some extent, social entrepreneurship is more than just an economic activity. It brings positive world-changing solutions to society at a time when we need them. Because of this significant effect on society, social entrepreneurship has received extreme interest in both practice and academia.

In practice, many organizations and projects support social entrepreneurship. For instance, one of the most famous organization is Ashoka[1] (branded Ashoka: Innovators of the Public) in the USA, which promotes social entrepreneurship by identifying and investing in leading social entrepreneurs around the world. Its message is that everyone can be a change-maker. The second exemplar is Schwab Foundation for Social Entrepreneurship[2] in Switzerland, a not-for-profit organization with the aim of advancing social entrepreneurship and fostering social entrepreneurs as an important catalyst for societal innovation and progress. Another organization is the SEED[3] project, a global project for promoting and supporting social and environmental entrepreneurship to achieve sustainable development and poverty reduction.

[1] https://www.ashoka.org/en/about-ashoka

[2] http://www.schwabfound.org/

[3] https://www.seed.uno/

Furthermore, there are many examples of social entrepreneurs around the world. One of the most famous and inspiring role models is Muhammad Yunus, who received the Nobel Peace Prize in 2006 due to his social business 'Microfinance'. He founded Grameen Bank[4] in 1976, innovatively making microloans feasible. Instead of saying 'no' to poor people in Bangladesh who desire small amounts of capital to stand on their own feet, the Grameen was willing to help. To avoid the risk of no security availability among these impoverished people, the bank implemented innovative 'lending circles', in which the collection and administration processes were led by a number of borrowers in each community. In such a circle, borrowers monitor each other and check that each is paying back their loans correctly and timely. Therefore, debtors are motivated to comply with their payment commitments because they do not want to lose their social network. By involving the community, both the administrative work and payback security are safe. The lending circles even lead to payback rates greater than those of many large-scale banks. The microfinance model was so successful that the Grameen Bank is a global success story about social entrepreneurship. In the business sense, similar to any other bank, the Grameen Bank collects interest, thereby earning revenue. In the social aspect sense, the bank helps many poor people to escape their poverty, thereby causing social change. Muhammad Yunus has emphasized that this 'Microfinance' model is ''not charity''. ''This is a business: business with a social objective, which is to help people get out of poverty.''[5] (Muhammad Yunus, 2005). To date, this innovative model has been replicated in 58 countries worldwide (London & Morfopoulos, 2010), and Yunus Muhammad is one of the most inspiring social entrepreneurs in the world.

In academia, researchers have been interested in this topic. Many leading journals are publishing special issues on social entrepreneurship; for instance, the journal of Entrepreneurship: Theory and Practice published Volume 34, Issue 4 on Social Entrepreneurship in July 2010, and Volume 36, Issue 5 specifically on Social Entrepreneurs' Behavior in September 2012. Some international journals have been launched solely for the social entrepreneurship topic. Examples are the Journal of

[4] http://www.grameen.com/

[5] http://www.azquotes.com/quote/564202

Social Entrepreneurship, International Journal of Social Entrepreneurship and Innovation, and Social Enterprise Journal. Furthermore, new conferences on social entrepreneurship have frequently been organized. For instance, the Columbia Business School has held a Social Enterprise Conference annually since 2012. Berlin, Germany, hosted the Small and Medium Enterprises (SME) Week Conference in 2016 with a spotlight on social entrepreneurship. Hanoi, Vietnam, has also followed this trend, having organized conferences and events about social entrepreneurship every year since 2016. Further growth in this interest can also be seen by examining the Google search results for the keyword 'social entrepreneurship'. In 2005, the result was 158 000 hits (Seelos & Mair, 2005). In 2011, the same search resulted in more than 2.5 million hits (Ernst, 2011). In 2015, it was over 3.5 million[6]. In 2016, it was over 4.8 million[7].

Nevertheless, the "theoretical examination of this phenomenon is in its infancy" (Ernst, 2011, p.16). "Social entrepreneurship remains largely phenomenon driven" (Mair & Marti, 2006, p.2). The number of publications and accessible studies on the topic of social entrepreneurship is small (Light, 2011). Therefore, the first motivation of this thesis is to do a thorough scientific work in the field of social entrepreneurship.

[6] *search conducted on 31.07.15; at 11:17 AM;*

[7] *search conducted on 09.05.16; at 11:03 AM*

1.1.2 Social Entrepreneurial Intention – The Research Need

The subject of social entrepreneurship has considerable appeal to many different streams of research (Mair & Marti, 2005). However, exploring the connection between cognition and social entrepreneurship is a significant justification for future research (Dacin, et al., 2011). This direction focuses on understanding how and why entrepreneurs think and act (Mitchell et al., 2007). Krueger (2003) also explains for entrepreneurship generally, "If we are interested in studying new ventures, then we must understand the processes that lead up to their initiation" (p. 115). This point is also true for social entrepreneurship because we must understand why some people create a social enterprise while others do not.

Within the cognitive approach, the cognitive construct 'intention' has been attested to be the single best predictor of planned behaviors (Ajzen, 1991). All planned behavior is intentional (Krueger, N.R., 2000; Krueger, J.W., 2009). No action will occur without intention, although not all intentions lead to action (Krueger, N.R., 2000). Moreover, entrepreneurship is mostly discussed as a multi-step process leading to venture creation (Krueger et al., 2000; Shane, S. & Venkataraman, S., 2000; Ruhle, Hisrich, Peters & Shepherd, 2009). Any decision to start a new business is planned rather than being a conditioned response (Krueger, Reilly & Carsrud, 2000). Therefore, intention, the first step of entrepreneurship, should be examined (Lee, S.H., & Wong, 2004). As long as a person possesses entrepreneurial intention, he or she is more likely to demonstrate entrepreneurial behavior (Ajzen, 1991; Shaver & Scott, 1991; Krueger & Carsrud, 1993). Therefore, studying entrepreneurial intention plays a key role in understanding why someone chooses to be an entrepreneur.

Nonetheless, in the social entrepreneurship field, research on Social Entrepreneurial Intention is at an early stage (Ernst, 2011, p.16). Few studies on this topic have been undertaken. In particular, articles or works on Social Entrepreneurial Intention mainly use qualitative methodologies to explore a new phenomenon or to discover its nature. Almost no theoretical findings are tested or underpinned by empirical data. The lack of quantitative research of Social Entrepreneurial Intention is raised by Ernst (2011). The following are typical examples for this subject:

Mair & Noboa (2003): This work is the first intention model for social entrepreneurship. It is based on the Entrepreneurial Potential Model – EPM (Krueger & Brazeal, 1994). EPM is an integration of two classical models: the Theory of Planned Behavior - TPB (Ajzen, 1991) and the Entrepreneurial Event Model - SEE (Shapero, 1982). Mair and Noboa (2003) agree with Krueger and Brazeal (1994) that Social Entrepreneurial Intentions are shaped by the perceived desirability and perceived feasibility of forming a social enterprise. However, they extend the classical model SEE by proposing antecedents for these two primary dependent constructs. The authors suggest that perceived feasibility is influenced by self-efficacy and social support. Similarly, empathy and moral judgement positively influence perceived desirability. Mair and Noboa appear to offer initiatives for the approach of building a Social Entrepreneurial Intention model by relying on previously tested models from business entrepreneurship research.

Nga & Shamuganathan (2010): This study aims to explore the relationship between the Big Five Personality factors (agreeableness, conscientiousness, extraversion, neuroticism, and openness) and Social Entrepreneurial Intention. Nevertheless, they ultimately refer to other aspects such as social vision, sustainability, social networks innovation, and financial returns instead of intentions. Therefore, this work cannot have any specific effects on research of Social Entrepreneurial Intention.

Ernst (2011): The work formulates a Social Entrepreneurial Intention Model (SEi) that is adapted from the classical model of the TPB (Ajzen, 1991). The idea of this SEi model is that three TPB variables, i.e., attitude toward a behavior, perceived control, and subjective norms concerning starting a new social venture, are positively significant with respect to Social Entrepreneurial Intention. Notably, the attitude toward social entrepreneurial behavior is the strongest and direct determinant of Social Entrepreneurial Intention. Subjective norms have the greatest effect on the attitude toward a behavior and, hence, have a powerful, indirect influence on Social Entrepreneurial Intention. By contrast, perceived control affects Social Entrepreneurial Intention not directly, but rather indirectly. In addition, he extends the model by suggesting antecedent groups for these TPB constructs, such as perceived social entrepreneurial knowledge/experience and perceived social entrepreneurial skills.

İrengün & Arıkboğa (2015): This study pursues testing the research model proposed by Nga & Shamuganathan (2010). They collected data from students of business administration in Istanbul. Therefore, the study has the same problem as Nga & Shamuganathan (2010): it lacks contributions to the field of Social Entrepreneurial Intention.

Politis et al. *(2016):* This paper investigates the formation of Social Entrepreneurial Intention in postgraduate students in the southeast European region. It also adapts the intentional model the TPB from Ajzen (1991) to understand the Social Entrepreneurial Intention. Moreover, it involves personality traits, demographic characteristics, situational factors, and a new variable "tension in mission focus" in the conceptual model of social entrepreneurial intention formation. With data collected from 111 students, the study finds that the hypothesis on personality traits is rejected. Thus, personality traits fail to predict entrepreneurial intention. Nevertheless, the other hypotheses are significant. For TPB constructs, the attitudes toward Social Entrepreneurial Intention and Perceived Support have impacts on Social Entrepreneurial Intention. On the contrary, social norms do not affect Social Entrepreneurial Intention.

Tiwari et al. *(2017)*: The study also aims to identify the Social Entrepreneurial Intention among undergraduate students in an Indian context by using the Theory of Planned Behavior – TPB as well (Ajzen, 1991) as the research framework. Following this TPB theory, the Social Entrepreneurial Intention is derived from three factors: attitude toward a behavior, perceived control, and subjective norms. Additionally, the study considers the effects of emotional intelligence, creativity, and moral obligation as antecedents of the TPB constructs. Concerning the TPB, the paper reports that perceived behavioral control has the strongest effect on Social Entrepreneurial Intention. The second strongest influencer of the Social Entrepreneurial Intention is the attitude toward a behavior. Subjective norms experience the weakest relationship with Social Entrepreneurial Intention. The result differs from the findings of Ernst (2011).

As mentioned above, few studies focus on finding what factors influence the intention of someone to be a social entrepreneur (e.g., Mair & Noboa, 2003; Nga & Shamuganathan, 2010; Enrst, 2011; İrengün & Arıkboğa, 2015; Tiwari et al., 2017). Nevertheless, neither Nga & Shamuganathan (2010) nor İrengün & Arıkboğa (2015) contributes to the entrepreneurial intention literature. Rather than intentions, these

authors mention relationships between the Five Big Personalities and social vision, sustainability, social network innovation and financial returns. The three others (Mair & Noboa, 2003; Ernst, 2011; Tiwari et al., 2017) formulate their models based on the TPB (Ajzen, 1991) initially. However, the results from their empirical data are controversial. The findings are different from one to another.

In conclusion, research on intention in the context of social entrepreneurship is in its infancy. Therefore, further research in this field is needed, for quantitative work in particular. The entire motivation of this dissertation is to address this research need.

1.2 Research Aim, Objectives and Questions

As mentioned previously (in section 1.1), the need to explore more about the intention of someone to become a social entrepreneur empirically drives this thesis. Therefore, the research aim of the dissertation is to address this research need.

In detail, the dissertation pursues two objectives: (1) *provide a fruitful understanding of how people's intentions to become social entrepreneurs are formed by developing a conceptual model of Social Entrepreneurial Intention* and (2) *test this model with primary data.* The findings are expected to provide efficient support for policymakers, social activists, and educators in their actions to promote social entrepreneurship in society.

Base on the research aim and objectives, the following research questions guide the study of this thesis:

RQ1: What factors influence the intention of a person to become a social entrepreneur?

RQ2: What relationships exist among these factors?

1.3 Research Design

1.3.1 Research Design Concept

A good understanding of a research design will enhance the quality of any research project because the research design indicates methods and procedures for selecting, collecting, and analyzing the required information to address the research problem (Tustin et al., 2005, p.82). The research design thus provides for researchers a clear research framework. It guides the methods and decisions and sets the basis for interpretation. Bless, Higson-Smith and Kagee (2007, p.71) define research design as "operations to be performed, to test a specific hypothesis under a given condition". Welman et al. (2009, p.46) describe a research design as an overall plan that depends upon the means of data collection/generation and the type of respondents. Babbie and Mouton (2001, p.74) identify the research design as a plan or blueprint for conducting the research. The research design also entails a detailed outline of how to perform a study. According to Mouton (1996, p.107), the primary function of a research design is to enable researchers to anticipate what the appropriate research decisions are likely to be and to maximize the validity of the eventual results.

The research design is a mixed-bag approach, choosing from different alternatives and options to ensure that the research purposes and perspectives are clarified and achieved. The research problems will determine the methods and procedures, including the types of measurement, sampling, data collection and data analysis for the proposed research (Zikmund et al., 2013, p.66).

1.3.2 Classification of Research Design

There is no simple classification system defining all of the variations; there are different design dimensions (Cooper & Schindler, 2008). Each author can have a different point of view.

According to Tustin et al. (2005), there are three types of research design: (1) exploratory research, (2) descriptive research, and (3) causal research (Tustin et al., 2005, p.83).

(1) *Exploratory research* is used to search for insights into the general nature of the problem, possible decision alternatives and relevant variables that must be considered. It is based on highly flexible, unstructured, and qualitative research methods. It uses approaches such as literature reviews and individual/group interviews (Tustin *et al.,* 2005, p.84). This type of research is conducted when little is known about a particular research topic (Bless et al., 2007, p.43). The primary aim of the exploratory study is to formulate more-specific research questions or hypotheses relating to that phenomenon (Bless *et al.,* 2007, p.182). This type of research uses literature reviews, interviews of experts on the subject and focus group interviews (Saunders, et al., 2009, p.140).

(2) *Descriptive research* is based on structured and quantitative research methods. It uses research approaches that include in-house personal interviews, intercept surveys, landline telephone interviewing, regular mail surveys, and online quantitative surveys (Tustin *et al.,* 2005, p.86). Researchers do not change or modify the condition under investigation and do not determine the cause-and-effect relationships (Leedy & Ormrod, 2013, p.182). The descriptive research assumes that the researcher has prior knowledge about the problem situation. In fact, a significant difference between exploratory and descriptive studies is that descriptive research is characterized by the previous /formulation of specific hypotheses. It is preplanned and structured, and it is typically based on large, representative samples. A descriptive research design specifies the methods for selecting the data sources (Malhotra & Dash, 2011).

(3) *Causal research* determines the cause-and-effect relationships between variables using experiments (Tustin *et al.,* 2005, p.87; Leedy & Ormrod, 2013, p.223). As with descriptive research, it requires a planned and structured design. Although descriptive research can determine the degree of association between variables, it is not appropriate for examining causal relationships (Malhotra & Dash, 2011).

According to Cooper and Schindler (2008), there are four typical dimensions of research design. These dimensions are (1) the degree to which the research question has been crystallized, (2) the purpose of the study, (3) time, and (4) the method of data collection.

In the first dimension, degree of research question crystallization, there are two types of research design: (1) exploratory study and (1) formal study (Cooper & Schindler, 2008, p.143).

(1) *Exploratory study* tends toward loose structures with the objective of discovering future research tasks. The immediate purpose of exploration is usually to develop hypotheses or questions for further research.

(2) *Formal study* begins where the investigation leaves off. It starts with an assumption or research questions and involves well-defined procedures and data source specifications. Its purpose is to test the posed hypotheses or answer the research questions.

There are four different types of study purpose: reporting, descriptive, causal-explanatory, and causal-predictive (Cooper & Schindler, 2008, p.144)

(1) *Reporting study* provides a summation of the data, often recasting the data to achieve a more profound understanding or to generate statistics for comparison.

(2) *Descriptive study* answers who, what, when, where and how questions. The objectives of the descriptive research are to describe the phenomena or characteristics associated with a subject population, to estimate proportions of a population that have these characteristics, and to discover associations among different variables (Cooper & Schindler, 2008, p.151). Researchers who conduct descriptive research examine the situation as it is.

(3) *Causal-explanatory study* involves learning why and how one variable produces changes in another variable. In other words, this study tries to explain relationships among variables.

(4) *Causal-predictive study* attempts to prognosticate an effect on one variable by manipulating another variable when holding all other variables constant.

Concerning the time dimension, there are two types of research studies: cross-sectional and longitudinal.

(1) *Cross-sectional study* is performed once, and it represents a snapshot of one point in time.

(2) *Longitudinal study* is replicated over an extended period. Its advantage is that it can track changes over time.

Statistical and case studies are the two research design types in terms of topic scope.

(1) *Statistical study* is designed for width rather than depth. It strives to capture a population's characteristics by making inferences from sample characteristics. Hypotheses are tested quantitatively and statistically. Generalizations about findings are presented based on the representativeness of the sample and the validity of the design.

(2) *Case study* places more emphasis on a full contextual analysis of fewer events or conditions and their interrelationships. Although hypotheses are often used, the reliance on qualitative data makes support or rejection more difficult. This method provides valuable insight for problem solving, evaluation, and strategy.

In conclusion, different types of research design exist. Which one we choose for our project depends on the study's purposes, the research questions, and the research problems.

1.3.3 Research Design for the Thesis

The nature and complexity of the research problems, research questions and research objectives (see sections 1.1 and 1.2) of this thesis call for a purposeful research design to meet all of the requirements for 'intentions' in social entrepreneurship. For this reason, the two-stage design comprising an exploratory study and a formal study was used (Cooper & Schindler, 2008, p.150). In other words, the research used the literature review and empirical study method.

The literature review (see chapters 2 and 3) is qualitative research. It identifies the primary concepts related to the topic and determines which theory to use as a foundation and background of this study. It is an intensive exploratory study of the literature, encompassing a large number of textbooks and articles. The focus of this literature study is articles or papers published in leading academic journals and conference proceedings in various disciplines such as entrepreneurship, social

entrepreneurship, entrepreneurship education, management, social psychology, and social economics. These sources are The Cognitive Psychology of Entrepreneurship, The Journal of International Social Research, International Entrepreneurship and Management Journal, Developmental Psychology, Applied Psychology, The Journal of Applied Behavioral Science, Enterprise and Innovation Management Studies, Journal of Business Ethics, Journal of World Business, Entrepreneurship Theory and Practice Journal, Strategic Entrepreneurship Journal, Journal of Business Venturing, and Journal of Business Venturing. This exploratory study achieves the following aims:

- Clarify fundamental definitions, concepts, and constructs used in this thesis
- Identify the SCCT theory as the background for Social Entrepreneurial Intention formation
- Pinpoint contextual factors that might influence Social Entrepreneurial Intention
- Propose all hypotheses on the relationship among all constructs
- Provide a conceptual model of Social Entrepreneurial Intention formation

In order to strengthen the trustworthiness and validity of the research, the study also conducts an empirical investigation. The term ‘empirical’ refers to the knowledge derived by the process of practical and scientific experience, experiments, and inquiries (Skager & Weinberg, 1971, p.4). An empirical investigation involves a planned process of collecting and analyzing data – systematically, purposefully and accountably (Isaac & Michael, 1997, p.2). It would seem appropriate to deduce that the empirical research section of any study would play an important role. As such, it would tend to provide appropriate, reliable, and valid data to support the research problem and the accompanying research questions (Gorin, 2007, p456; Mislevy, 2007, p.463). The purpose of this empirical investigation is, therefore, to obtain reliable and valid data in accordance with the research problem and aim (section 1.2 and 1.3) and then to test all of the proposed hypotheses (section 3.1 and 3.2).

In this empirical study, a quantitative method is used in order to meet the need for quantitative research in the field of social entrepreneurship (section 1.2). Quantitative research aims to test hypotheses (Leedy and Ormrod, 2013, p.95). It is a scientific, justifiable, and precise method because it is based on facts that are often reflected in exact figures. Quantitative research uses structured questionnaires and produces results that are considered valid and reliable (Pellissier, 2007, p.19). However, this method requires

researchers to identify, develop, and standardize the measurements of each variable by focusing considerable attention on the validity and reliability of the scale (Leedy & Ormrod, 2013, p.95-96).

The quantitative approach of conducting surveys can yield representative and broadly generalizable information about a proportion of participants, because this information is produced by the nature of the survey method (Mouton, 2008, p.152) and it is the ‘‘consistent, or systematic way’’ of collecting data (Susan Guyette, 1983, p.48). Therefore, this approach was applied to this thesis.

To summarize, the ‘‘two-stage design’’ (Cooper & Schindler, 2008, p.150) guides the dissertation. The first phase is theoretical research on social entrepreneurship generally and Social Entrepreneurial Intention in particular. It aims to understand the topic-related concepts and to posit a conceptual model about how Social Entrepreneurial Intention is formed. The second step is conducting a survey to collect primary data in order to test the theoretical model statistically.

1.4 Structure of the Doctoral Thesis

The doctoral dissertation is structured into six chapters as follows:

Chapter 1, *Introduction,* begins with the motivation and research need, the reasons for social entrepreneurship in general and for Social Entrepreneurial Intention in particular. It then identifies the research aim, research objectives and research questions. Next, the research design guiding this thesis is mentioned. The final section presents the structure of the doctoral dissertation.

Chapter 2, *Conceptual Principles*, provides insights on all core concepts including social entrepreneurship, social entrepreneur, social enterprise, and Social Entrepreneurial Intention. Furthermore, to establish a background for developing the thesis' model of Social Entrepreneurial Intention, it reviews all dominant intention models in entrepreneurship in general and brings insights to this thesis in particular.

Chapter 3, *Research Model and Hypotheses*, first focuses on explaining how hypotheses are proposed. The hypotheses are divided into two groups. One group is based on the Social Cognitive Career Theory - SCCT (Lent et al., 1994) constructs, including self-efficacy, outcome expectation, and entrepreneurial intention. The second group is related to contextual factors such as Entrepreneurship Education, Entrepreneurship Experience, Entrepreneurial Extra-curricular Activity, Role Model, and Perceived Support. After the hypotheses are established, the conceptual model of this thesis is illustrated.

Chapter 4, *Questionnaire Development and Pretest*, covers all perspectives of a research method, which according to Bryman (2006) include processes, instruments, and techniques for developing the questionnaire. First, variable measurement is displayed. Second, questionnaire development including a presentation of a pretest is provided. Finally, the final version of the questionnaire is presented.

Chapter 5, *Empirical Analysis*, addresses the empirical study for the thesis. It provides detailed insights into data collection, data analysis and sources of findings. The first step is to cope with sample design and data collection. The second step is data screening to ensure the data are clean and ready for further analysis. The third step is to describe the sample and to provide details of the descriptive analysis of the study. The

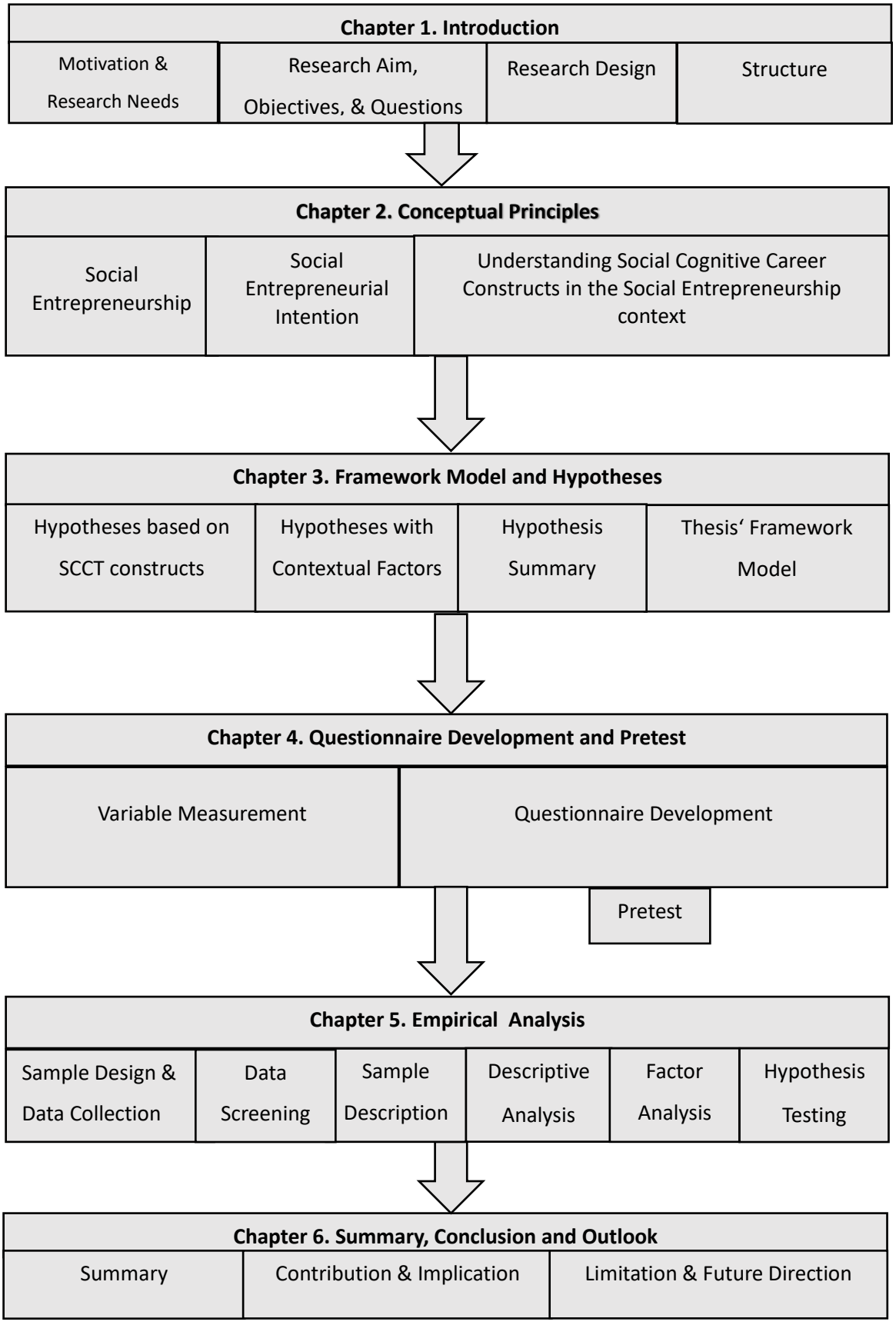
next phase is to present the factor analysis procedure and results. In the final stage, all proposed hypotheses are tested, and the findings are discussed and summarized.

Chapter 6, *Summary, Conclusion, and Outlook*, concludes with a brief digest of the entire thesis, an overview of its findings, theoretical contribution and practical implications, limitations and recommendations for future research.

Figure 1 graphically summarizes the thesis' structure[8].

[8] *Author's own figure*

Figure 1. Thesis' structure[8]



Chapter 2. CONCEPTUAL PRINCIPLES

This chapter provides all core concepts of social entrepreneurship (section 2.1) and entrepreneurial intention (section 2.2). It reviews the dominant intention models in entrepreneurship and brings insights for this thesis (section 2.2). Finally, it provides an understanding the Social Cognitive Career constructs in the social entrepreneurship context (section 2.3).

2.1 Social Entrepreneurship

Social entrepreneurship currently exists worldwide. The term itself frequently appears in the media and is used on university campuses and by public officials. Nonetheless, no agreement exists on what social entrepreneurship is. Discussion on that issue is overwhelming, and definitions are still diverse. For that reason, providing a statement on how to understand this term in this thesis makes sense. Therefore, this section focuses on two main topics: (1) an understanding of social entrepreneurship in the literature (section 2.1.1) and (2) an understanding of social entrepreneurship in this thesis (section 2.1.2).

2.1.1 Understanding of Social Entrepreneurship in the Literature

The debate on how we should understand social entrepreneurship is always controversial in academia. Zahra et al. (2009) mention 20 different explanations of social entrepreneurship or social entrepreneurs. Dacin et al. (2010) count 37 variations. Bacq and Janssen (2011) note 12 definitions of ‘social entrepreneurship’; 17 different definitions of ‘social entrepreneurs’; and 18 definitions of ‘social enterprise’, ‘social entrepreneurial venture’ or ‘social entrepreneurship organization’. Some argue that social entrepreneurship is a phenomenon that is anything but new (Boddice, 2011). To some extent, social entrepreneurs have always existed. In the past, they were named visionaries, humanitarians, philanthropists, reformers, saints, or only great leaders (Bornstein & Davis, 2010, p.2).

However, social entrepreneurs today are different from before because they have achieved a potentially ‘Global Reach’[9] (Nicholls, 2009). Similarly, Mair, Robinson and Hockerts (2006) describe social entrepreneurs with various labels. They are ‘‘enterprising individuals devoted to making a difference.’’ They can be ‘‘social purpose business

ventures dedicated to adding for-profit motivations to the nonprofit sector''; or ''new types of philanthropists supporting venture capital-like investment portfolios''. They can also be ''nonprofit organizations that are reinventing themselves by drawing on lessons learned from the business world'' (Mair et al., 2006, p. 1).

Moreover, although social entrepreneurship is the term that is most commonly used in the field of study, it also relates to the other terms. Studies sometimes mention the 'social entrepreneur', which is a person engaging in social entrepreneurship. It can also refer to 'social enterprise', which is a venture run by a social entrepreneur. All of these terms are applied in the course of theoretical excursion because they refer to the same thing but on different levels of analysis (Hockerts, 2015; Peredo & McLean, 2006). Hence, following this idea, a comprehensive table synthesizing 62 different definitions sorted chronologically is created in the dissertation for reference (see appendix A).

All of these thoughts are integrated into one of four different approaches to understanding social entrepreneurship (Ernst, 2011, p. 45). They are (1) heroic social entrepreneur, (2) trading NPO, (3) innovating sectors, and (4) entrepreneurial social enterprise.

[9] *Global Reach refers to a business initiative to increase the access between a company and its current and potential customers using the Internet (https://en.wikipedia.org/wiki/Global_Reach)*

(1) Heroic Social Entrepreneur

This approach views social entrepreneurs as the heart of the definition and presents them as heroic figures. Typical studies on this dimension include Bornstein (1998), Thompson et al. (2000), Dees (1998), Leadbeater (2001), Drayton (2002), Bornstein (2004), Grenier (2006), and Brinckerhoff (2009).

Social entrepreneurs are considered trailblazers with compelling new ideas, or social change agents. They possess exceptional talents, characteristics, and durable ethical fiber. They are 'transformative forces' for addressing social problems. They ''will not take 'no' for any answers, and will not give up until they have spread their ideas as far as they possibly can'' (Bornstein, 2004, p.1f). They are the reformers and revolutionaries of our society today. They make fundamental changes by accomplishing tasks for the social sector. Their visions are striking. They endeavor to create opportunities to improve society, and they take action. They combat the underlying causes of problems rather than simply treating symptoms. Although they can act locally, ''their activities have very potential to stimulate improvements in their chosen arena, whether that is education, health care, job training and development, environment, art, or any other social endeavors'' (Dees et al., 2001, p.5). They also motivate and inspire other people to choose related career paths.

Table 1 provides some definition examples of this approach.

Heroic Social Entrepreneur Approach	
Definition	**Source**
‘‘Social entrepreneur is a path breaker with a powerful new idea which combines visionary and real-world problem-solving creativity, has a strong ethical fiber, and is possessed by his or her vision for change.’’	Bornstein (1998) (cited in Samer Abu-Saifan, 2012, p.24)
‘‘At the heart of the organizations profiled in this report stands a social entrepreneur who drives the organization. None of these organizations could exist without the leadership of the charismatic individuals at their heart. Social entrepreneurs will be a vital source of the wave of social innovation Britain needs to confront the new challenges faced by the welfare state.’’	Leadbeater (2001, p.53)
Social entrepreneurs are ‘‘transformative forces’’. They are ‘‘people with new ideas to address major problems who are relentless in the pursuit of their visions’’. They can be ‘‘people who simply will not take ‘no’ for an answer’’, and ‘‘who will not give up until they have spread their ideas as far as they possibly can’’	Bornstein (2004, p.1f.)
Social entrepreneurs create social enterprises. They are the reformers and revolutionaries of our society today. They make fundamental changes in the way in which things are done in the social sector. Their visions are bold. They seek out opportunities to improve society and they take action. They attack the underlying causes of problems rather than simply treating symptoms. In addition, although they might act locally, their actions have great potential to stimulate potential improvements in their chosen arena, whether that is education, healthcare, job training, and development, their environment, the arts, or any other social endeavors.	Dee et al. (2001, p.5)

Table 1. Heroic Social Entrepreneur Approach[10]

[10] *Author’s own table*

(2) Trading NPO (Non-Profit Organization)

This approach considers social entrepreneurship from a non-profit perspective and explains the term as bringing business expertise and market-based skills to the non-profit sector. Advocates of this premise include Boschee (1995), Fowler (2000), Boschee and McClurg (2003), Spear (2006), Leadbeater (2007), and Mair et al. (2006).

Here, social entrepreneurship is ‘‘any *earned-income business or strategy undertaken by a non-profit* distributing organization to generate revenue in support of its charitable mission’’ (Boschee & McClurg, 2003, p.7). Social enterprises are ‘‘*trading organizations within the social economy* (co-operatives, mutual, community business, and voluntary or not-for-profit organizations)’’ (Spear, 2006, p. 400). In other words, they are the extensions of existing non-profit work such as centers, funds, clubs, voluntary organizations, and associations. However, they emphasize earning money that is not dependent on subsidies or grants. They commonly adopt private-sector management techniques in their business to operate more efficiently and competitively.

Table 2 provides some definition examples of this approach.

Trading NPO (Non-Profit Organization) Approach	
Definition	**Source**
‘‘Social Entrepreneurs are nonprofit executives who pay increasing attention to market forces without losing sight of their underlying missions, somehow balancing moral imperatives and the profit motive - and that balancing act is the heart and soul of the movement.’’	Boschee (1998, p.2)
Social enterprises are ‘‘any earned-income business or strategy undertaken by a non-profit distributing organization to generate revenue in support of its charitable mission.’’	Boschee & McClurg (2003, p.7)
‘‘[…] social enterprises, i.e., trading organizations within the social economy (co-operatives, mutual, community business, and voluntary or not-for-profit organizations)’’	Spear (2006, p.400)
A social entrepreneur is willing to form a CSR (corporate social responsibility) firm at a financial loss because either doing so expands opportunity sets of citizens in consumption-social giving space or there is an entrepreneurial warm glow from forming the firm.	Baron (2007, p.683)

Table 2. Trading NPO (Non-Profit Organization) Approach[11]

[11] *Author’s own table*

(3) Innovating Sectors

The third dimension emphasizes the goal of innovation for a social purpose and stresses that social entrepreneurship can be any types of organization, such as businesses, NPOs, or government sectors. In particular, Stevens et al. (2008) state that social entrepreneurship is a *"global phenomenon"* that "*employs innovative ways to deal with social issues*" to improve benefits to the society (Stevens et al., 2008, p.3). Simply, it is about "*finding new and better ways to create and sustain social value*" (Anderson& Dees, 2002, p.192). Examples of this stream are Brinkerhoff (2001), Anderson and Dees (2002), Light (2005), Tan et al. (2005), Austin and Wei Skillern (2006), Mair and Noboa (2003), Mair and Marti (2006a), Stevens et al. (2008), and Ashoka (2009, 2012).

Table 3 provides some definition examples of this approach.

Innovating Sectors Approach	
Definition	**Source**
"Social entrepreneurship as innovative, social value creating activity that can occur within or across the nonprofit, business, or government sectors"	Austin & Wei Skillern (2006, p.2)
Social entrepreneurship is "a term used to describe innovative approaches to solve social problems."	Densa (2007, p.4) cited in Ernst (2011)
Social entrepreneurship is "a global phenomenon that employs innovative approaches to addressing social issues with the aim to improve benefits to society."	Stevens et al. (2008, p.3)
Social entrepreneurs are individuals with innovative solutions to society's most pressing social problems […]. They are both visionaries and ultimate realists, concerned with the practical implementation of their vision above all else.	Ashoka (2012)

Table 3. Innovating Sectors Approach[12]

[12] *Author's own table*

(4) Entrepreneurial Social Enterprise

The final approach views social entrepreneurship as a form of entrepreneurship but with a social twist. Social entrepreneurs use "*earned-income strategies*" to chase "*social objectives*" and attempt to generate both "*finance and social returns"* on investment (Seelos & Mair, 2005). They pursue social value and address social problems but with entrepreneurial spirit and entrepreneurial activities (Nguyen, 2012). In this sense, "social enterprise is the *marriage between the market and the social purpose"* (Frances, 2008, p. 152). Some representative works of this approach are Waddock and Post (1991), Barendsen and Gardner (2004), Schwab Foundation (2005), Dorado (2006), Alter (2007), Frances (2008), and Nguyen (CSIP, 2012).

Notably, social enterprise emphasizes employ a "*business-like, innovative approach*" to achieve the mission of "*delivering community services"* and "*social values*". This mission is about not only "*developing new social enterprise business ventures"*, but also "*maximizing revenue generation from programs by applying principles from the for-profit business without neglecting the social mission"* (Peredo, 2005, p26). Simply, social entrepreneurs are who "*approach a social problem with an entrepreneurial spirit and business acumen"* (Barendsen & Gardner, 2004, p.43).

Table 4 provides some definition examples of this approach.

Entrepreneurial Social Enterprise Approach	
Definition	**Source**
"Social entrepreneurs are 'rare breed of leaders' who search for change, respond to it and exploit it as an opportunity to develop new business models for the social empowerment."	Vasakarla (2008, p.32)
"Social entrepreneurs may or may not be public sector officials; and their defining characteristic is not whether they create or change a public agency, but the blend of business and social principles they bring to it."	Dorado (2006, p.322)
Social entrepreneurs "utilize business skills to create organizations that have as their primary focus the provision of a social benefit, such as employment opportunities and services to disadvantaged groups in the	Schlee et al., (2008, p. 5)

United States and abroad. Social ventures differ from traditional nonprofits because they are at least partially self-sustaining and therefore less reliant on donations.''	
A social entrepreneur is a ''mission-driven individual who uses a set of entrepreneurial behaviors to deliver a social value to the less privileged, all through an entrepreneurially oriented entity that is financially independent, self-sufficient, or sustainable.''	Abu-Saifan, S., (2012, p.25)
Social entrepreneurship is ''a process, that includes: the identification of a specific social problem and a specific solution (or a set of solutions) to address it; the evaluation of the social impact, the business model and the sustainability of the venture; and the creation of a social mission-oriented for-profit or a business-oriented nonprofit entity that pursues the double (or triple) bottom line.''	Robinson (2006, p. 95)
''Social enterprise is the marriage between the market and the social purpose.''	Frances (2008, p.152)
''Social enterprise is a concept that refers to the work of social entrepreneurs under different legal entities depending on specific purposes and operating conditions. Social enterprises directly target at social benefits, and are led by a strong entrepreneurial spirit to achieve both social benefits as well as economic returns.''	Nguyen et al., (CSIP, 2012, p. 6)

Table 4. Entrepreneurial Social Enterprise Approach[13]

[13] *Author's own table*

Summary of these Four Approaches

The first approach, 'Heroic Social Entrepreneur', views social entrepreneurs as *heroic figures, trailblazers, or transformative forces* with exceptional identities. However, when examining practice, Seanor and Meaton (2007) find that ''there were no tales of the leader who like a superhero flew in and put the organization back on the rails to run smoothly'' (Seanor & Meaton, 2007, p. 94). Additionally, Bill Drayton, the founder of the Ashoka[14] organization and the thought leader in this area, advocates the vision that ''everyone is a change maker'' (Drayton, 2006, p.84). He believes that every single person can engage in social entrepreneurship to create social change. To prove that, his institution – Ashoka – aims to identify social entrepreneurs at an early stage and offer them a wide range of assistance, and it seeks to spread the term 'social entrepreneur' around the world. To date, the approach of heroic social entrepreneur lacks empirical support. Therefore, it cannot be placed in the center of academic research on social entrepreneurship.

The second approach, 'Trading NPO', refers to social enterprise as a trading, not-for-profit organization. Such organizations apply private-sector management skills and procedures to their social business. They focus on teams or existing organizations instead of on the heroic image of the social entrepreneur, thereby making social entrepreneurship more accessible and visible (Ernst, 2011). However, the approach has a limitation because it excludes any form of for-profit social venture, and it does not mention anything about innovation, which is one of the essential characteristics in the field of entrepreneurship. Therefore, this approach is not suitable either for entrepreneurship in general or social entrepreneurship in particular.

The third approach, 'Innovating Sectors,' views social enterprises as any type of organization including businesses, NPOs, or government sectors; however, it stresses employing innovative means of solving social problems. This approach has two advantages over the first two. First, it focuses on innovation, which is one of the most important aspects of entrepreneurship. Second, it portrays the universality of the phenomenon. Researchers and authors from the area of public policy can use this term

[14] https://www.ashoka.org/en/about-ashoka

to bring parts of their societal responsibilities into social enterprises or even encourage public policy officials to act more innovatively and efficiently. Nevertheless, this view does not include market discipline because it does not mention revenue generation in a competitive field, which is a central element of entrepreneurship (Ernst, 2011). In fact, generating revenue is one of the vital goals of any enterprise, either business or social. Therefore, this approach has the same result as the previous two as it cannot drive academic studies of social entrepreneurship.

The last approach, 'Entrepreneurial Social Enterprise', identifies social entrepreneurship as a combination including business and social purposes. It uses entrepreneurial spirit, business, and innovative acumen to solve social issues. It offers the most substantial compliance with the field of entrepreneurship. It avoids all of the limitations of the previously described approaches. Hence, this thesis uses this proposition for understanding social entrepreneurship.

Table 5 presents an overview of understandings of social entrepreneurship approaches.

Overview of Understanding Social Entrepreneurship Approach			
Approach	**Characters**	**Limitation/ Advantage**	**Result**
Heroic Social Entrepreneur	Social entrepreneurs are heroes possessing exceptional talents or identities.	It is not realistic, and it lacks empirical support.	It cannot be placed in the center of academic research on social entrepreneurship.
Trading NPO	Only social enterprises can be considered non-profit organizations.	It excludes all other forms of for-profit ventures. It also ignores innovation.	It is not suitable either for entrepreneurship in general or social entrepreneurship in particular.
Innovating Sectors	Social enterprises can be any type of organization, including non-profit and for-profit; however, they emphasize that innovation is how to achieve social value.	It does not consider market discipline, which is one of the central aspects of entrepreneurship.	It cannot drive academic studies of social entrepreneurship.
Entrepreneurial Social Enterprise	Social entrepreneurship is a form of entrepreneurship but with a social twist. It uses entrepreneurial activities to address social problems.	It provides the most comprehensive background for understanding social entrepreneurship because it avoids all of the limitations of the three other approaches.	**It is used for understanding social entrepreneurship in this thesis.**

Table 5. Understanding Social Entrepreneurship Approaches Overview[15]

[15] *Author's own table*

2.1.2 Understanding of Social Entrepreneurship in the Thesis

As mentioned previously, the social entrepreneurship term in this thesis is understood under the last approach 'Entrepreneurial Social Enterprise'. Social entrepreneurship is a form of entrepreneurship that marries social mission with a competitive value proposition. Specifically,

Social entrepreneurship is a practice/process in which an entrepreneur – either a traditional business-minded individual or someone who emerges from the public or non-profit sector – uses business management skills to undertake entrepreneurial activities to address social problems and pursue social values. In other words, social entrepreneurs act entrepreneurially and socially. Acting entrepreneurially provides innovative products/services in competitive markets, generating both economic value (revenues) and social value. Acting from a social perspective means that social entrepreneurs always make decisions for social purposes. The social mission of social entrepreneurship always dominates the economic mission because it is ''explicit and central'' (Dees, 1998, p.3). Moreover, the social mission is the single most important criterion distinguishing social entrepreneurship from other forms (e.g., Martin & Osberg, 2007; Mair & Marti, 2006a; Peredo & McLean, 2006). In other words, the process of social entrepreneurship can be considered through three activities. The first is ''the identification of a specific social problem and a specific solution (or a set of solutions) to address it''. The second is ''the evaluation of the social impact, the business model, and the sustainability of the venture''. The last is ''the creation of a social mission-oriented for-profit or a business-oriented non-profit entity that pursues the double (or triple) bottom line'' (Robinson, 2006, p.95).

A ***social enterprise*** is "***any business venture created for a social purpose***" such as mitigating/reducing a social problem or a market failure or generating social value when operating with the financial discipline, innovation, and determination of a private sector business (Alter, 2007, p.12). It is "***business with primarily social objectives***". Its surpluses are reinvested principally for the community rather than for maximizing profit for shareholders and owners (UK government, 2002). In other words, social enterprise refers to the ''***work of social entrepreneurs under a legal entity***''**.** It ''directly targets at social benefits'', with a ''strong entrepreneurial spirit'' to achieve both ''social benefits and economic returns''[16] (Nguyen et al., 2012, p.6). Furthermore, ''using business model

as a tool to achieve social objectives'' is the nature of social enterprises (Nguyen et al., 2012, p.7).

Social entrepreneurs are ***persons who run a social enterprise or work in the practice of social entrepreneurship*** (Ernst, 2011). They are ''mission-driven'' individuals who use a set of ''entrepreneurial behaviors'' and act through ''an entrepreneurially oriented entity'' to achieve ''social values'' (Abu-Saifan, 2012, p.25). They thrive on ''economically sustainable solutions to social problems'' (Tracey & Philipps, 2007). On the one hand, they are ''visionaries''; on the other hand, they are also ''ultimate realists'' concerned with the practical implementation of their vision above all else (Ashoka, 2012).

[16] *Social Entrepreneurship Report in Vietnam in 2012,* *https://www.britishcouncil.vn/sites/default/files/social-enterprise-in-vietnam-concept-context-policies.pdf*

2.2 Entrepreneurial Intention

2.2.1 Understanding of Entrepreneurial Intention in the Thesis

As mentioned in section 1.2, entrepreneurial intention is the most important variable to predict entrepreneurial behaviors. There is a variety of studies on this topic (e.g., Krueger, 1993; Bird, 1988; Lent et al., 1994; Shane, S. & Venkataraman, S., 2000; Thompson, 2009). Nevertheless, there is no consensus definition of this variable. Rather, there are numerous definitions of entrepreneurial intention (Conner, M. & Armitage, 1998). It is usually mentioned in the context of similar terms such as entrepreneurial awareness, entrepreneurial potential, entrepreneurial propensity, and entrepreneurial orientation. However, when defining entrepreneurial intention together with considering the operational process of entrepreneurship, there is some discrepancy among those terms (Enrst, 2011). Therefore, this thesis uses only the term 'entrepreneurial intention'.

Bird (1988) describes entrepreneurial intention as the state of mind that directs and guides the entrepreneur to act toward the implementation and development of new business concepts. Krueger et al. (1993) define entrepreneurial intention as a commitment to starting a new venture. Zhengxia Peng, Genshu Lu & Hui Kang (2012) state that entrepreneurial intention is a mental orientation such as a desire, a wish, or a hope influencing the choice of entrepreneurship. Doan Winkel et al. (2011) simply identify entrepreneurial intention as an individual's desire and determination to engage in new venture creation.

Researchers commonly define entrepreneurial intention based on the idea that intention presents a belief that an individual will perform a certain behavior (Krueger et al., 2000), and entrepreneurship is a 'process of creating a new venture or new organization' (Shane S. & Venkataraman, S., 2000). Thereby, this dissertation follows this stream. In particular, it adopts the definition of Thompson (2009), which is considered the most practical and appropriate one (Ernst, 2011). The term 'entrepreneurial intention' is understood in this thesis as *"a self-acknowledged conviction by a person that he/she intend to run a new business venture and consciously plan to do so at some point in the future"* (Thompson, 2009, p. 676).

2.2.2 Overview of Entrepreneurial Intention Models

Shapero (1982) and Bird (1988) were the first authors to place intentions at the heart of entrepreneurship studies. Thereafter, there have been a booming number of studies focused on this topic. One of the most popular approaches is to determine which model can be used to understand entrepreneurial intention. Researchers have proposed diverse models over time. However, according to the literature review, in the 1980s and 1990s, eight main intention models were developed and applied in the field of entrepreneurship (Doan Winkel, 2011; Guerrero et al., 2008; Zhengxia Peng, Genshu Lu, & Hui Kang, 2012). They are described historically in figure 2. The first two models in the 1980s were the Entrepreneurial Event Model by Shapero – SEE (Shapero, 1982) and the Bird model (1984). In the 1990s, researchers developed several models. For instance, the Theory of Planned Behavior (TPB) was developed by Ajzen in 1991 (Ajzen, 1991). The Theory of Planned Behavior Entrepreneurial Model (TPBEM) was suggested by Krueger and Carsrud in 1993 (Krueger & Carsrud, 1993). The Social Cognitive Career Theory (SCCT) was developed by Lent, Brown and Hackett (1994). The Entrepreneurial Potential Model (EPM) was from Krueger and Brazeal (1994). The Entrepreneurial Intention Model (EIM) was proposed by Boyd and Vozikis (1994). The last one for this period was Davidsson's model in 1995 (Davidsson, 1995). Figure 2 provides an overview of all intention models with their timeframes.

After 1995, almost all other studies (including in the 21st century) have been aligned with this stream. They try to either test the validation and the reliability of those models or put forth new models by criticizing, modifying, adapting, and extending the dominant ones. The following section reviews all such models in more detail.

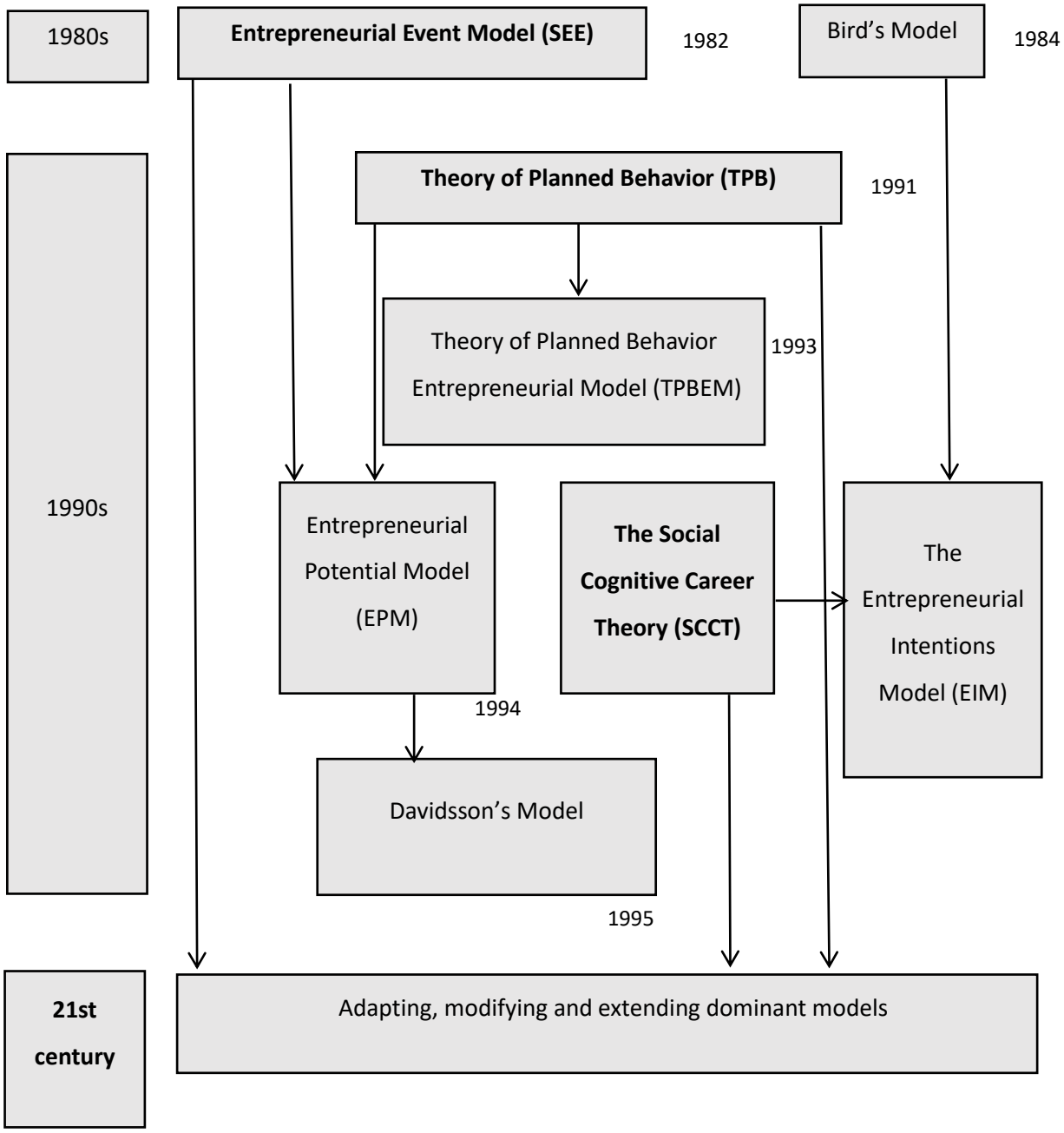


Figure 2. Intention Models over Time[17]

[17] *Author's own figure*

***Entrepreneurial Event Model - SEE (Shapero, 1982)*:** This model is the first in the field of entrepreneurial intention. The model (figure 3) explains two phases: intention and decision making to start a new business. In the last phase of the model, the decision to initiate a new venture requires two things: (1) intention toward entrepreneurship and (2) a precipitating (or displacing) event as a trigger to direct an individual's behavior instead of his/her inertia or habit. However, focusing on the first phase (i.e., intention), this model shows that intention to start a business is derived from perceptions of desirability and feasibility to become an entrepreneur together with a propensity to act upon opportunities. Specifically, perceived feasibility is described as ones' capability of starting a business, whereas perceived desirability is relevant to the overall attractiveness of starting a business. Two examples of the use of this model are Peterman & Kennedy (2003) and Audet J. (2004).

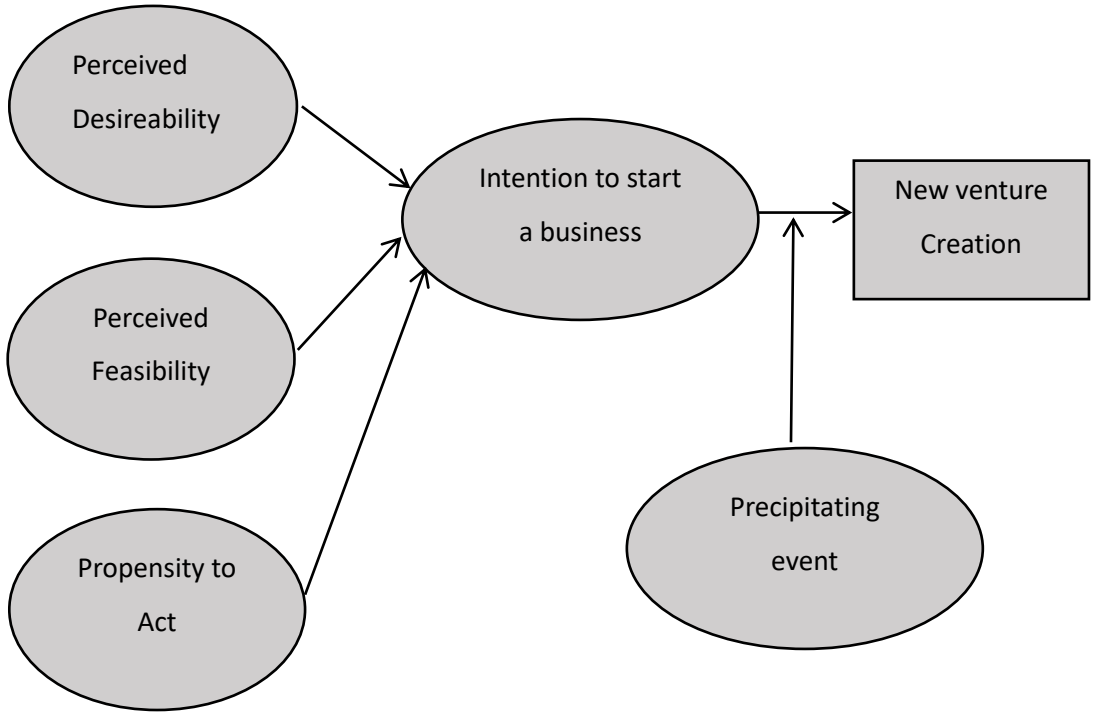


Figure 3. Shapero Model of Entrepreneurial Event (Source: Audet, 2004, p.5)

Bird's model (Bird, 1988): The model (figure 4) is about implementing entrepreneurial ideas, and intention is one part of that process. Figure 4 shows that entrepreneurial intention results from one's rational and intuitive thinking about creating a venture. This thought is affected by numerous personal and environmental contextual factors. Notably, the intention process begins with the ''personal needs, wants, values, habits, and beliefs'' of entrepreneurs (Bird, 1988, p. 445).

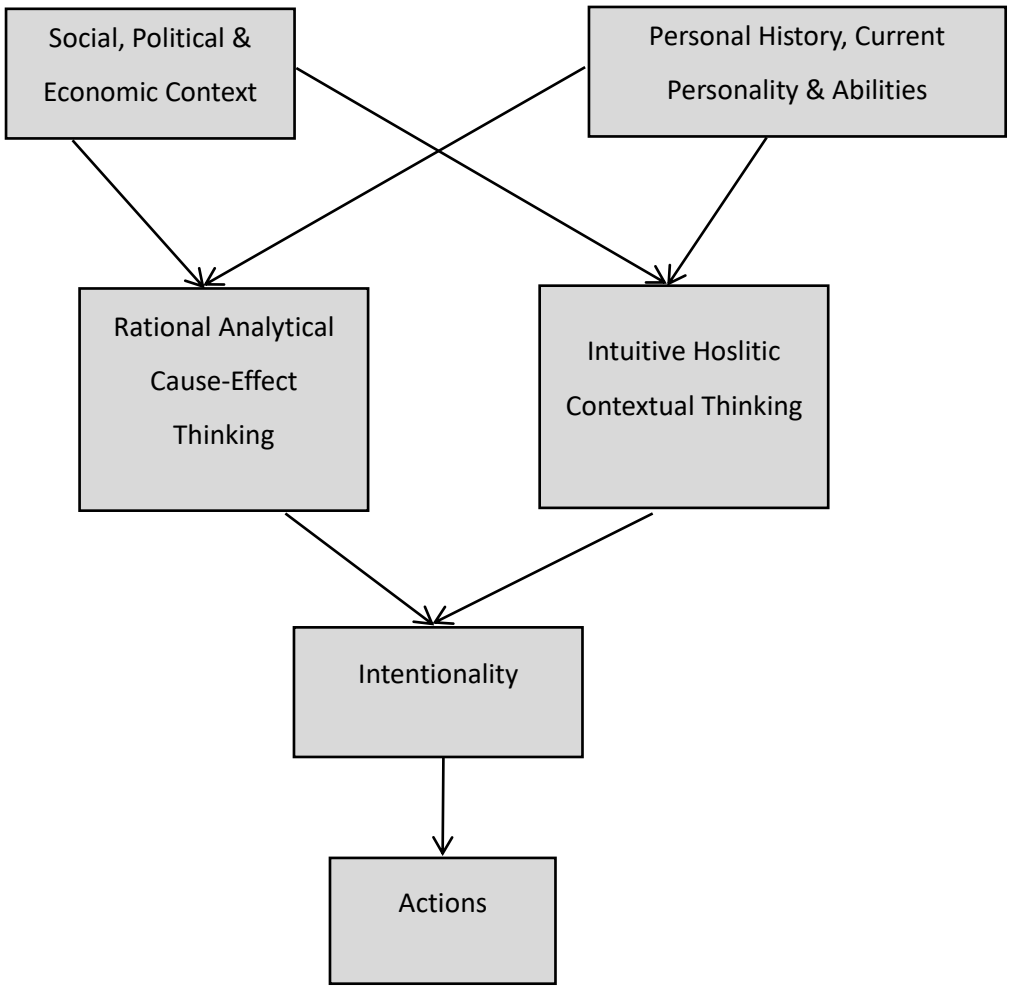


Figure 4. Contexts of Intentionality – Bird's Model (Bird, 1988, p.444)

Theory of Planned Behavior - TPB (Ajzen, 1991): The TPB (figure 5) is based on the idea that any behavior needs a certain amount of planning and can be explained by an intention to adopt that behavior. With respect to the intention phase, the TPB insists that attitude toward the behavior, subjective norm, and perceived behavioral control influence intention. Here, attitude toward a behavior is a perception or judgment about performing a particular behavior. Subjective norm refers to perceived pressure from social surroundings (especially from those with a significant influence on him/her, such as family or a close friend) to perform the target behavior. Perceived behavioral control can be perceived as either ease or difficulty in enacting a behavior. Additionally, personal or situational factors are predicted to affect an individual's entrepreneurial intention indirectly through their effect on one of these attitudinal antecedents (Ajzen, 1991).

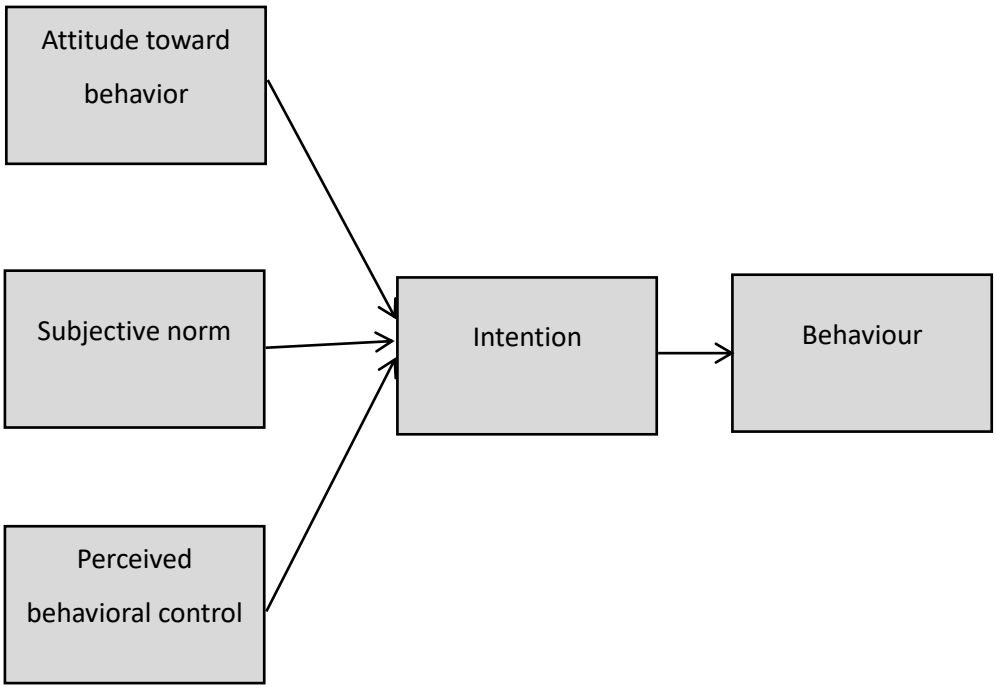


Figure 5. Theory of Planned Behavior (based on Ajzen, 1991, p. 182)

Theory of Planned Behavior Entrepreneurial Model - TPBEM (Krueger & Carsrud, 1993): The TPBEM (figure 6) is rooted in the Theory of Planned Behavior – TPB (Ajzen, 1991), but it is applied in the particular field of entrepreneurship. Similar to TPB, TPBEM shows that there are three fundamental antecedents of entrepreneurial intention. The first is the 'perceived attractiveness' of entrepreneurship, which is the attitude that someone holds with the expectation of venture creation. It develops based on perceived desirability. The second is the 'perceived of social norms' for the engagement in venture creation. The last is the 'perceived control/self-efficacy', which one maintains for entrepreneurial behaviors.

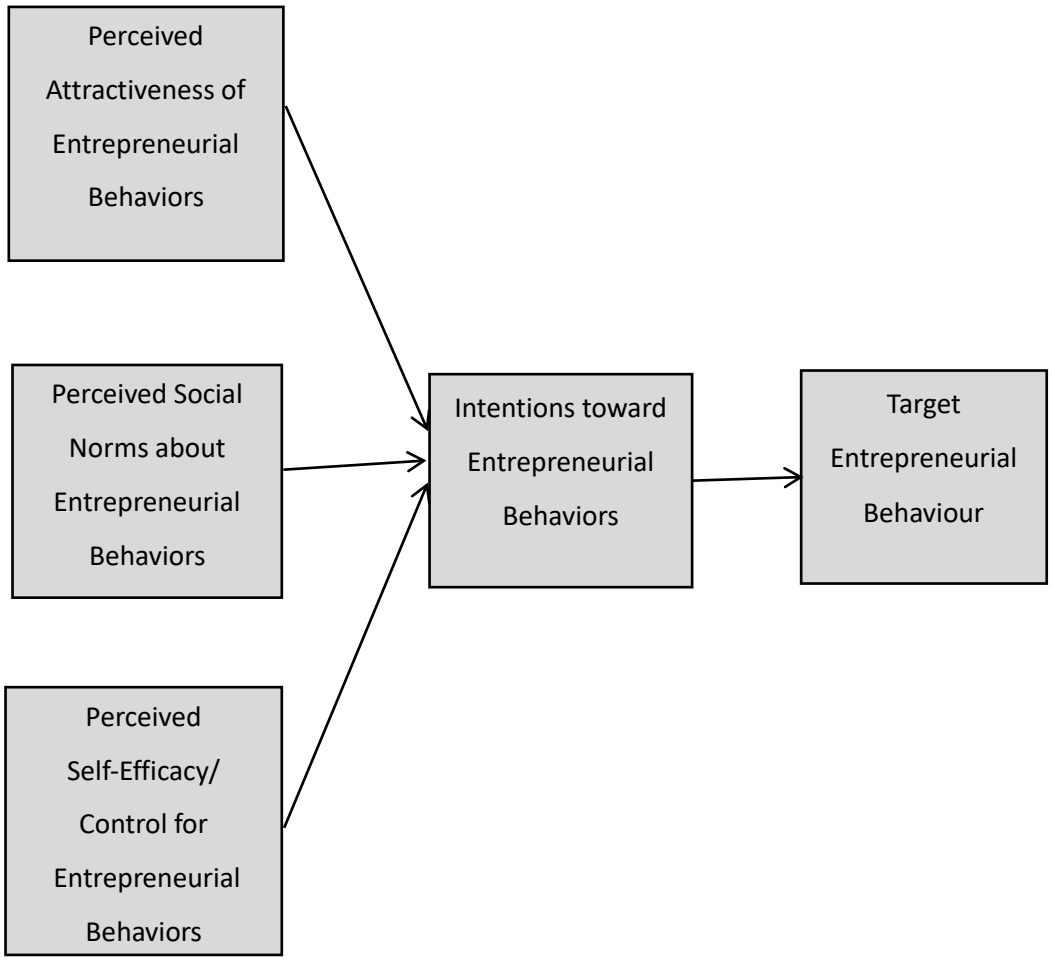


Figure 6. Theory of Planned Behavior Entrepreneurial Model
(based on Krueger & Carsrud, 1993, p. 323)

***Social Cognitive Career Theory - SCCT* (Lent et al., 1994):** The SCCT (figure 7) is based on the general social cognitive theory of Bandura (1986a). The SCCT is a vocational psychology theory that has been used extensively to explain decision-making behavior related to career issues. The theory emphasizes that cognitive-individual related factors (e.g., self-efficacy, entrepreneurial outcome expectations, and goals/intent) affect career development. Here, goals are specified as ‘‘one’s determination to engage in a specific behavior’’. Self-efficacy is ‘‘people’s judgments of their capabilities to organize and execute courses of actions required to attain designated types of performance’’ (‘‘*I know I can do it”*) (Bandura A, 1986a, p.391). Entrepreneurial outcome expectation is ones’ belief about the consequences or effects of performing particular behaviors (‘‘*If I do it, what will happen*’’). In the SCCT theory, determination or intention to take action in a specific domain depends on two variables. The first is people’s judgments of capabilities per se to manage and implement the actions (self-efficacy). The second is people’s probable and imagined consequences of performing particular behaviors (entrepreneurial outcome expectation) (Bandura A, 1986a; Lent et al., 1994). The theory also suggests that the decision-making process related to a career is influenced by both person and environmental/contextual elements. These factors are sources of self-efficacy, outcome-expectation, and intention (Lent et al., 1994).

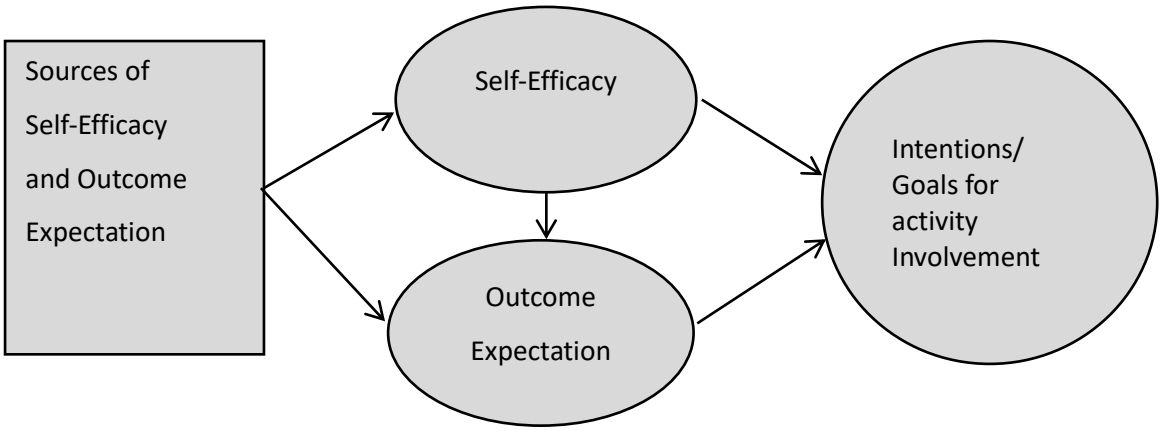


Figure 7. Social Cognitive Career Theory (based on Lent et al., 1994, p.88)

Entrepreneurial Potential Model - EPM (Krueger & Brazeal, 1994): The EPM (figure 8) is developed from the previous model SEE (Shapero & Sokol, 1982). It supports SEE in the corporate venture and enterprise development contexts. However, Krueger and Brazeal suggest that two more factors influence intention: credibility and potential. In other words, entrepreneurial credibility and entrepreneurial potential also affect entrepreneurial intention. Here, the entrepreneurial potential is an antecedent linking directly to the intention with a precipitating event (displacement). However, to have entrepreneurial potential, one should perceive 'entrepreneurial credibility' for starting a new venture. The 'entrepreneurial credibility' is a result of the combination of feasibility and desirability. In summary, the entrepreneurial potential requires a threshold level of perceptions of both feasibility and desirability, which together can provide evidence of perceived credibility plus a propensity to act upon the opportunity. The entrepreneurial potential can then become entrepreneurial intention if it has a precipitating event.

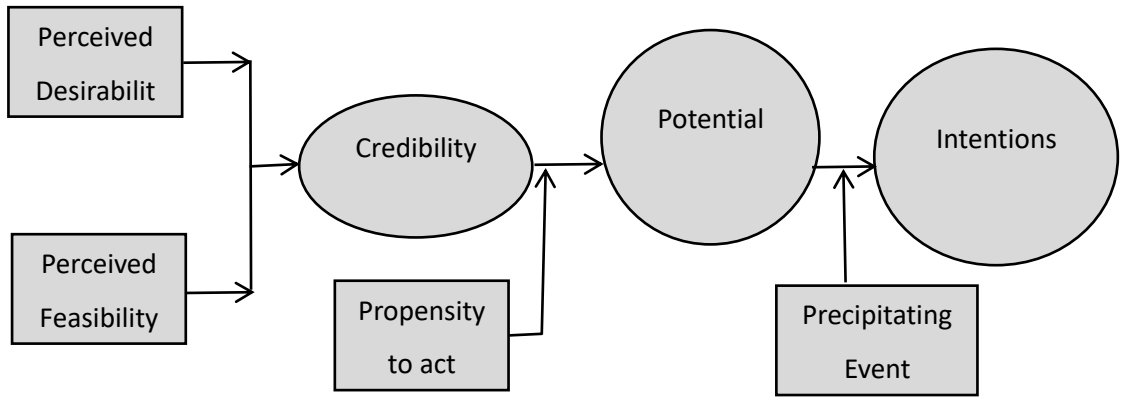


Figure 8. Entrepreneurial Potential Model (based on Krueger & Brazeal, 1994, p.95)

Entrepreneurial Intentionality Model – EIM (Boyd & Vozikis, 1994): The EIM (figure 9) is an extension of Bird's model (Bird, 1988), but it adds the new variable 'self-efficacy' from the SCCT (Lent et al., 1994). In the model, intentions are formed based on how people perceive their social and physical environment and on how they anticipate the future outcomes of their behavior. Specifically, the intention is driven directly by two constructs, 'self-efficacy' and 'attitudes & perceptions', that address entrepreneurship. 'Self-efficacy' is a person's belief in his or her capability to perform entrepreneurial tasks. 'Attitudes & perceptions' refer to the creation of a new venture grown from rational analytic thinking and intuitive holistic thinking. Noticeably, the authors Boyd and Vozikis argued that entrepreneurial self-efficacy is the most important factor influencing entrepreneurial intentions, and it is considered an intermediary between thoughts about venture creation and entrepreneurial intentions. According to authors such as Chen, Greene, & Crick (1998), and Zhao, Hills, & Seibert (2005), EIM is one of the most dominant intention-based models and serves as a significant basis for research on exploring the relationship between entrepreneurial self-efficacy and entrepreneurial intention.

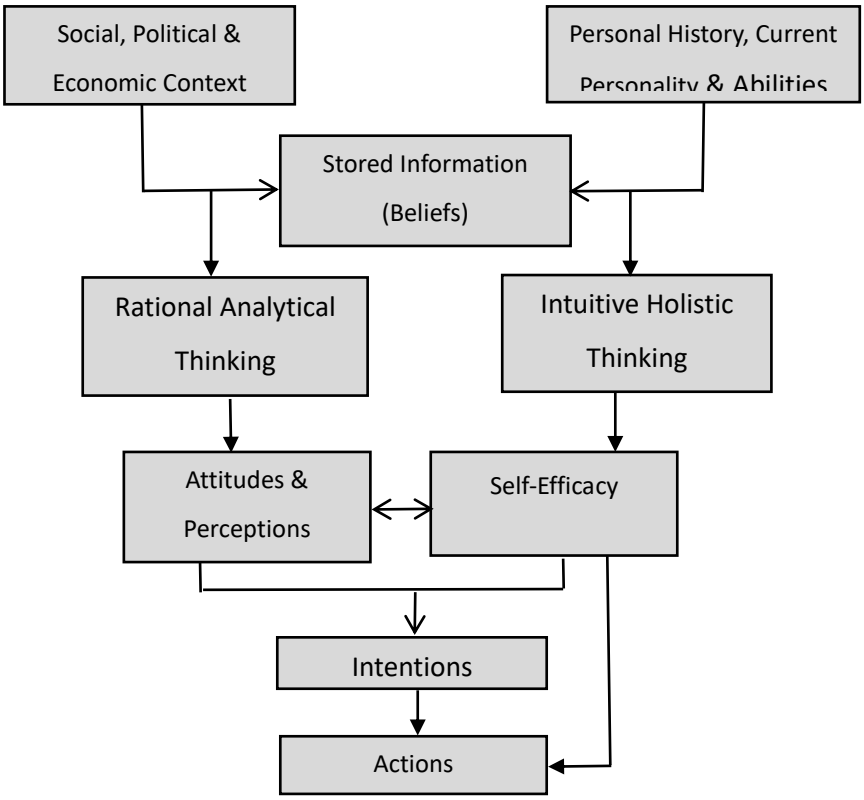


Figure 9. Entrepreneurial Intentionality Model (Boyz & Vozikids, 1994, p.69)

Davidsson's model (1995): This model (figure 10) was developed by Davidsson in 1995 (Davidsson, 1995). It aims to test an economic-psychological pull of factors that affect an individual's intention to become involved in a business. The model indicates that intention can directly result from two elements: conviction and situation. 'Situation' in this model is limited to 'current employment status'. 'Conviction' is a judgement about the 'current career' (e.g., ''this career is a suitable alternative for his/her'', Davidson, 1995, p.6). Remarkably, the 'conviction' variable is considered ''the major determinant of entrepreneurial intention'', and it is similar to ''perceived self-efficacy'', which was mentioned in Bird's model (Bird, 1988) or SCCT (Lent et al., 1994).

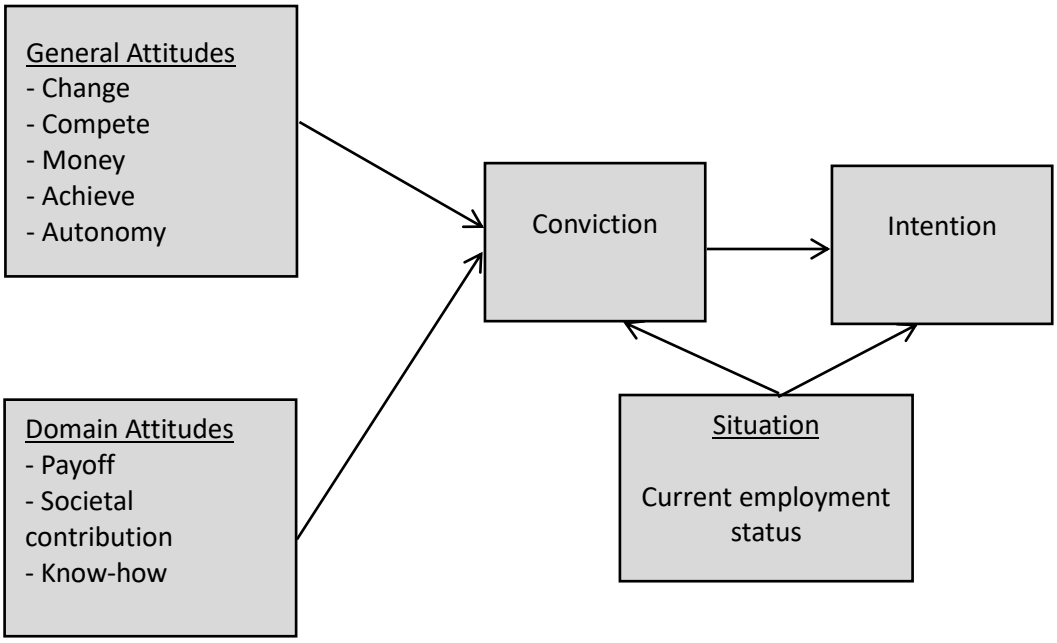


Figure 10. Davidsson's Model (based on Davidsson, 1995, p.5)

2.2.3 Dominant Intention Models Used in Entrepreneurship Research

As seen in figure 2 'Intention Models over Time', there are some main intention models can be divided into three strands in the decades from the 1980s until now. First, models come from social psychology in general, such as the Theory of Planned Behavior-TPB (Ajzen, 1991), and the Social Cognitive Career Theory – SCCT (Lent et al., 1994). Second, models focus specifically on the specific field of entrepreneurship, for example, the Entrepreneurial Event Model - SEE (Shapero, 1982) and Bird's model (Bird, 1988). Finally, models come from the convergence of both of the previous sets, for instance, the Entrepreneurial Potential Model – EPM (Krueger & Brazeal, 1994) and the Entrepreneurial Intentionality Model – EIM (Boyd & Vozikis, 1994*)*.

However, in the 1980s and 1990s, the Entrepreneurial Event Model – SEE (Shapero, 1982), and the Theory of Planned Behavior –TPB (Ajzen, 1991) were the basis for other models. These two are still considered the central theory-driven models used by researchers in studying intention concerning venture creation over time (Audet, 2004; Liñán et al., 2005). The SEE model was used specifically to understand entrepreneurial intention and behavior. In the SEE, people intend to start their own business when they perceive both the feasibility and desirability of venture creation. In contrast, TPB was developed to explain individual behavior in general based on the idea that attitudes, subjective norms, and perceived behavior control determine intention to perform a specific behavior.

Activities are diverse with respect to empirical research using these two models (i.e., SEE and TPB). Some researchers try to test the models, for example, Kolvereid (1996), Krueger et al. (2000), Peterman & Kennedy (2003), Audet (2004), Linan (2005), Souitaris et al. (2007), and Elfving et al. (2009). Some see these two models as having a high compatibility, such as the works of Krueger et al. (2000), and Van Gelderen et al. (2008). Some attempt to integrate them into one model, for example, Liñán et al. (2005) and Nabi et al. (2011). However, the results have been controversial. Neither of these two has considered cognitive variables the influencer of the entrepreneurial intention (Jos, C., 2012, p.31).

Another dominant model in this stream is the Social Cognitive Career Theory – SCCT (Lent et al., 1994), with the idea that people act on ''their judgments of what they can do'' and on ''their beliefs about the likely effects of various actions'' (Bandura, 1986,

p.231). Specifically, the individual's intention for action is primarily derived from two main cognitive variables: self-efficacy and outcome expectation. In the 1980s and 1990s, SCCT did not appeal to researchers as much as TPB and SEE did. Nevertheless, it was a motivation for using cognitive constructs as the antecedents of entrepreneurial intention. The first evidence of this enthusiasm appeared when Boyd and Vozikis (1994) added 'self-efficacy' as the main construct to identify intention in their Entrepreneurial Intention Model – EIM. Then, in 1995, Davidsson affirmed that 'perceived self-efficacy' is an alternative to 'conviction', which is ''the main determinant of entrepreneurial intention'' (Dadvisson, 1995, p.6). Noticeably, SCCT attracted many studies in the 21st century after a call from Segal et al (2002). Segal et al emphasize that the SCCT is a ''potential approach'' and ''is ripe to be applied to the field of entrepreneurship'' (Segal et al., 2002, p.1). This theory is also considered the most accepted and validated model discussed in the career literature to understand career interests and goals (Smith and Fouad 1999). Since then, many have followed this argument. Some representative examples are Douglas & Shepherd (2002), Lent et al. (2008), Segal et al. (2009), Rogers et al. (2008), and Hmieleski & Baron (2009).

2.2.4 Insights for the Thesis

The Social Cognitive Career Theory – SCCT (Lent et al., 1994) is emphasized as the ''potential approach'' (Segal et al., p.1) and the ''inclusive framework'' (Doan Winkel et al., 2011) for entrepreneurial intention research. This SCCT theory appears in many studies in the 21st century. It is considered the most acceptable and valuable model for explaining intention to undertake entrepreneurship (Smith & Fouad 1999; Swanson & Gore 2000). Additionally, compared to the primary intention-based models (i.e., the Theory of Planned Behavior – TPB (Ajzen, 1991), the Entrepreneurial Event Model – SEE (Shapero, 1982) and the Entrepreneurial Intention Model – EIM (Boyd & Vozikis, 1994), the SCCT has several similarities and distinctions.

Concerning the variable of 'self-efficacy', the SCCT model shares the same thought with the other models that entrepreneurial intention depends on the perception of capability to start a new venture. In the SEE model, this variable is named as 'perceived feasibility', and in the TBP theory, it is labeled as 'perceived control'. Remarkably, the SCCT allocates the same position with the EIM. In these two models,

SCCT and EIM, self-efficacy is considered a powerful determinant, a strong predictor of accomplishment (mastery) that individuals finally attain (Bandura, 1986). It is the most prodigious factor and a theoretical mediator between thoughts concerning venture creation and entrepreneurship intention (Boyd & Vozikis, 1994).

With respect to the construct 'outcome expectation', the Entrepreneurial Intentionality Model – EIM (Boyd & Vozilos, 1994) does not mention it. This absence is problematic because many empirical studies support the relationship between outcome expectation and entrepreneurial intention. Examples include Vanevenhoven & Liguori (2013), Diegelman & Subich (2001), Cassar (2007), and Shepherd & Patzelt (2011). Therefore, by integrating the 'outcome expectation' variable with 'self-efficacy' into the model, the SCCT avoids this matter.

Furthermore, there is a resemblance between the SCCT and the two others, TPB (Ajzen, 1991) and SEE (Shapero, 1982), on the subject of 'outcome expectation'. Precisely, 'outcome expectation' in the SCCT, 'perceived desirability' in the SEE, and 'attitude toward a behavior' and 'social norms' in the TPB hold some level of conceptual overlap. Ajzen describes the attitude toward a behavior as ''the individual's positive or negative evaluation of performing the particular behavior of interest'' and social norms as ''the person's perception of social pressure to perform or not to perform the behavior under consideration'' (Ajzen, 1988, p.117). Additionally, Ajzen envisions the attitude toward a behavior as the assessment of each target behavior's potential outcome and the probability of each perceived outcome occurring (Ajzen, 2001). Regardless, this definition is likely for entrepreneurial outcome expectation in SCCT, which contains both imagined and probable outcomes. Shapero interprets 'perceived desirability' as ''how attractive the idea of starting up a business is'' (Shapero, 1982). It is equivalent to the recent thought of 'attitude toward behavior' in the work of Autio et al. (2001). In this study, the attitude toward a behavior is the personally perceived attractiveness of the target behavior (Autio et al., 2001).

In summary, the SCCT manifests significant contributions to the literature of entrepreneurial intention. First, it can rationalize the conceptual overlap in terms of the potential outcome or expectation of people who intend to start a new venture. Second, it circumvents the problem of lacking the construct 'outcome expectation', which the Entrepreneurial Intentionality Model – EIM (Boyd & Vozilos, 1994) has. Third, it shares many similarities to other dominant intentional theories, such as the TPB (Ajzen, 1991)

and the Entrepreneurial Event Model – SEE (Shapero, 1982), concerning the capacity and desirability of undertaking a business. Fourth, it inherits the powerful determinant of entrepreneurial intention from the EIM (Boyd & Vozilos, 1994), which is 'self-efficacy'. Finally, the SCCT (Lent et al., 1994) has been highlighted as the ''potential approach'' (Segal et al., p.1) and a worthy model for explaining intention to engage in entrepreneurship (Gore & Leuwerke, 2000; Smith & Fouad 1999; Swanson & Gore 2000). Therefore, the Social Cognitive Career Theory (Lent et al., 1994) is the theoretical background for formulating the Social Entrepreneurial Intention in this dissertation.

2.3 Understanding Social Cognitive Career Constructs in the Social Entrepreneurship Context

The Social Cognitive Career Theory – SCCT (Lent et al., 1994) is a vocational psychology theory extensively devoted to explaining decision-making behavior. It is developed from the general social cognitive theory of Bandura (1986a). The theory stresses that career development is influenced by cognitive-individual related factors including self-efficacy, outcome expectations, and goals/intentions. Here, goals are specified as ''one's determination to engage in a specific behavior''. Self-efficacy is ''people's judgments of their capabilities to organize and execute courses of actions required to attain designated types of performance'' (''*I know I can do it*'') (Bandura A, 1986a, p.391). Outcome expectation is one's belief about the consequences or effects of performing particular behaviors (''*If I do it, what will happen*''). Specifically, the SCCT argues that determination or intention to take an action in a specific domain depends on self-efficacy and outcome expectation (Lent et al., 1994).

As argued above, SCCT is used as a theoretical background for this work. However, how to understand all of these SCCT constructs in the social entrepreneurship context must be explained. The following sections provide answers. Specifically, section 2.3.1 provides a basic understanding of the variable 'intention' in social entrepreneurship (i.e., Social Entrepreneurial Intention). Then, sections 2.3.2 and 2.3.3 present 'self-efficacy' and 'outcome expectation' in social entrepreneurship, respectively (i.e., Social Entrepreneurial Self-Efficacy, and Social Entrepreneurial Outcome Expectation).

2.3.1 Social Entrepreneurial Intention (SEi)

Entrepreneurial intention is the most important variable for predicting entrepreneurial behaviors. There is a variety of studies on this topic (e.g., Krueger, 1993; Bird, 1988; Lent et al., 1994; Shane, S. & Venkataraman, S., 2000; Thompson, 2009). Nevertheless, there is no consensus definition of this variable. There are numerous definitions of entrepreneurial intention (Conner, M. & Armitage, 1998). It is usually mentioned in the context of similar terms, such as entrepreneurial awareness, entrepreneurial potential, entrepreneurial propensity, and entrepreneurial orientation. However, when defining entrepreneurial intention together with considering the operational process of entrepreneurship, there is some discrepancy among those terms (Enrst, 2011). Therefore, this thesis uses only the term entrepreneurial intention.

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Researchers commonly define entrepreneurial intention based on the idea that intentions present the belief that an individual will perform a certain behavior (Krueger et al., 2000) and that entrepreneurship is a 'process of creating a new venture or new organization' (Shane, S. and Venkataraman, S., 2000). This dissertation also follows this stream. In particular, it adopts the definition of Thompson (2009), which is considered the most practical and appropriate one (Ernst, 2011). The term 'entrepreneurial intention' is understood under this thesis as "*a self-acknowledged conviction by a person that he/she intend to run a new business venture and consciously plan to do so at some point in the future*" (Thompson, 2009, p. 676). Thus, by adapting this definition in the context of social entrepreneurship, *Social Entrepreneurial Intention (SEi)* can be considered *"a self-acknowledged conviction by a person who intends to set up a new social enterprise and plans to do so at some point in the future"*.

2.3.2 Social Entrepreneurial Self-Efficacy (Self)

Self-efficacy is generally described as 'judgments' of people on their capabilities to organize and implement a range of actions required to attain designated types of performance (Bandura A, 1986a, p.391). In other words, it is profound self-confidence in accomplishing specific tasks (Boyds & Vozikis, 1994) or strong personal belief in having the abilities and skills to initiate a task and pursue it to success (Bandura, 1997). Entrepreneurial self-efficacy, in particular, is suggested to include the skills needed to create a new venture (McGee et al., 2009) or individuals' perceptions of their ability to perform entrepreneurial tasks (Kickul & D'Lntino, 2005; Kickul et al., 2009). In the stream of a 'venture creation process model', entrepreneurial tasks are divided into four discrete phases: (1) searching, (2) planning, (3) marshaling, and (4) implementing (Mueller & Goic, 2003). The *searching* phase involves the development of a unique idea and identification of a special opportunity. This phase draws upon the entrepreneur's creative talents and the ability to innovate. Entrepreneurs, in contrast to managers, are particularly adept at perceiving and exploiting opportunities (Hisrich & Peters, 1998). The *planning* phase consists of activities by which the entrepreneur converts the idea into a feasible business plan. At this stage, the entrepreneur may or may not actually write a formal business plan. However, he or she must evaluate the idea or business concept and make it sustainable. The plan addresses questions such as "What is the size of the market? Where will the business establishment be located? What are the product specifications? How will the products be manufactured and for whom? What are the start-up costs? What are the recurring operating costs of doing business? Will the venture be able to make a profit and if so, how soon after founding? How rapidly will the business grow, and what resources are required to sustain its growth?" (Mueller & Goic, 2003). The third one, *marshaling* phase, involves assembling resources to bring the venture into existence. At the end of this step, the business is only on paper or in the mind of the entrepreneur. To bring it into reality, the entrepreneur gathers (marshals) necessary resources such as capital, labor, customers, and suppliers. Without those things, the venture cannot exist or sustain itself (Mueller & Goic, 2003). The final phase is *implementing*. The entrepreneur is responsible for growing and sustaining the business to make it past its infancy. To this end, the successful entrepreneur applies high-grade management skills and principles. As an executive-level manager, the entrepreneur engages in strategic planning and manages a variety of business relationships with suppliers, customers, employees, and capital

providers. Growing an enterprise requires vision and the ability to solve problems quickly and efficiently. These traits are not unique to entrepreneurship; effective managers also require these abilities. However, the entrepreneur is the primary ‘‘risk-bearer’’ of the enterprise with a financial stake in its long-term growth and success (Mueller & Goic, 2003).

To be more concise, Compo states that ‘entrepreneurial self-efficacy’ is defined as the ‘‘degree of belief in being able to start a new business venture successfully’’ (Campo, 2010, p.16). Following this thought and applying it in the social entrepreneurship context, we define *Social Entrepreneurial Self-Efficacy (Self) as the “set of beliefs about one’s capacity to start a new social venture and to perform all entrepreneurial tasks successfully”*.

2.3.3 Social Entrepreneurial Outcome Expectation (OE)

In social cognitive theory, another critical component is outcome expectation, which is the individual’s belief about probable response outcomes. Although self-efficacy beliefs pertain to ‘‘one’s response capabilities’’ (i.e., ‘‘can I do this’’), outcome expectation involves ‘‘the imagined consequences of performing particular behaviors’’ (i.e., ‘‘If I do this, what will happen’’) (Lent et al., 1994, p. 83). Outcome expectation is the individual’s conviction that he or she can execute the behavior needed to produce the desired outcome (Bandura, 1999).

Outcome expectations were initially defined by Vroom (1995) in his efforts to introducing expectancy theory to organizational settings. According to Vroom, an individual will choose among alternative behaviors by considering which behavior will lead to the most desirable outcome. Outcome expectations play an essential role in motivating individuals toward goals. Outcome expectations carry several types of beliefs about response outcomes. They are beliefs about ‘‘extrinsic reinforcement’’ (e.g., receiving tangible rewards for successful performance). They are beliefs about ‘‘self-directed consequences’’ (e.g., pride in oneself for mastering a challenging task). They are derived from the process of performing a given activity (e.g., absorption in the task itself) (Lent et al., 1994). Moreover, Bandura (1986) suggested several different classes of outcome expectations. They can be the anticipation of physical (e.g., financial gains),

social (e.g., status), and self-evaluative (e.g., pride) outcomes that can affect career behavior.

In the context of the social entrepreneurship field, the particular behavior here is interpreted as the creation of a new social venture. Therefore, *Social Entrepreneurial Outcome Expectation (OE)* is "*people's beliefs about the desired consequences or effects if they run a new social enterprise*".

Chapter 3. RESEARCH MODEL AND HYPOTHESES

3.1 Hypotheses Based on Social Cognitive Career Constructs

Social Cognitive Career Theory – SCCT (Lent et al., 1994) posits that two main variables named self-efficacy and outcome expectation affect the intention to choose a career. Early on, the Social Cognitive Theory (Bandura, 1986) suggested that "people act on their judgments of what they can do, and on their beliefs about the likely effects of various actions" (i.e., self-efficacy) (Bandura, 1986, p. 231). People are more inclined to pursue an occupation that they believe they have the skills and abilities to perform and from which they believe they are more likely to obtain positive outcomes, such as a sound income and feelings of accomplishment (i.e., outcome expectation) (Lent et al., 1994; Fouad & Smith, 1996).

Concerning self-efficacy, one of the most dominant and early entrepreneurial intention models – EIM (Boyd & Vozikis, 1994) stated a strong link between entrepreneurial intention and self-efficacy. Since that study, a vast amount of research has investigated this relationship. Almost all researchers ascertain that entrepreneurial self-efficacy robustly explains and predicts entrepreneurial intention. Individuals with higher self-efficacy in entrepreneurship show a higher tendency to start a new venture (Krueger et al., 2000; Jung et al., 2001; Sesen, 2013; Douglas & Fitzsimmons, 2013).

Similar to self-efficacy, outcome expectations are crucial determinants of career interests and goals (Gore & Leuwerke, 2000). The stronger people's beliefs are in the positive outcomes resulting from a particular behavior, the higher the interest they have and the more likely they are to show an intention to become involved in that behavior. The three studies by Diegelman & Subich (2001), Segal et al. (2002), and Vanevenhoven & Liguori (2013) are patterns for supporting this premise. Remarkably, they all used the SCCT to explore the connections among outcome expectation, self-efficacy, and intention. Diegelman and Subich (2001) did their research in psychology with a sample of students. They showed that the interest or the intentions of students to obtain a psychology degree significantly relate to outcome expectations and self-efficacy. After intervening in raising the students' expectations, the outcome expectations of positive benefits significantly predict increased intentions (Diegelman & Subich, 2001). In

entrepreneurship, in particular, Segal et al. (2002) and Vanevenhoven & Liguori (2013) concluded that entrepreneurial intentions, entrepreneurial outcome expectations and entrepreneurial self-efficacy show significantly positive correlations. Students with higher entrepreneurial self-efficacy and higher entrepreneurial outcome expectations have higher intentions to become an entrepreneur (Segal et al., 2002; Vanevenhoven & Liguori, 2013).

Moreover, a relationship between self-efficacy and outcome expectation is found. Self-efficacy is considered the "predominant causal factor" and the "partial determinant" of outcome expectation (Lent et al., 1994, p.84). The outcomes that people expect depend largely on their judgment of what they can accomplish. ''In most social, intellectual, and physical pursuits, those who judge themselves highly efficacious will expect favorable outcomes, whereas those who expect poor performances of themselves will conjure up negative outcomes'' (Bandura, 1999, p.24). In an early meta-analysis in 1994, Lent and his co-authors ascertained that an average weighted correlation between self-efficacy and outcome expectation was .49 (Lent et al., 1994). This interrelationship has since been confirmed by many empirical studies. Some representatives are Fouad & Smith (1996), Segal et al. (2002), Lent at al. (2008), and Lent et al. (2015). Typically, Segal et al. (2002) demonstrate the positive correlation between outcome expectation and self-efficacy, with a Pearson correlation coefficient of 0.392 and a t-statistic of 4.533 ($p<.001$). In other words, higher self-efficacy leads to having a higher outcome expectation that is more likely to be self-fulfilled.

Logically, relying on the preceding discussion and applying it to social entrepreneurship, the following hypotheses are developed:

H1: Social Entrepreneurial Self-Efficacy (Self) relates positively to Social Entrepreneurial Intention (SEi).

H2: Social Entrepreneurial Outcome Expectation (OE) relates positively to Social Entrepreneurial Intention (SEi).

H3: Social Entrepreneurial Self-Efficacy (Self) relates positively to Social Entrepreneurial Outcome Expectation (OE).

Figure 11 illustrates the hypotheses (i.e., H1, H2, and H3) graphically.

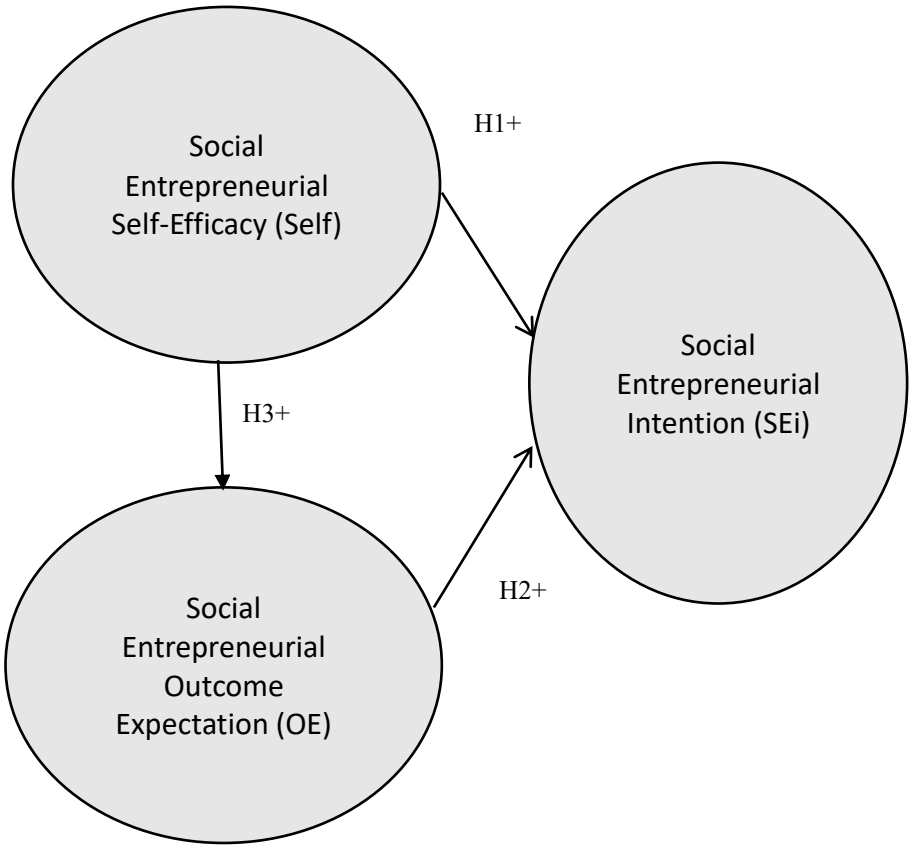

Figure 11. Social Entrepreneurial Model based on SCCT [18]

[18] *Author's own figure*

3.2 Hypotheses with Contextual Factors

Huuskonen (1997) confirms that goals and plans do not grow from empty nothingness. Rather, they are formed by interactions between the persons themselves and the environment. There are numerous meta-analysis studies that are in favor of that argument, such as Sesen (2013), Zhao et al. (2005), Linan (2008), Kristiansen (2001), Luthje & Franke (2003), and Nguyen (2016). According to Kristiansen (2001), various contextual factors might affect the entrepreneurial intentions, but one of the most important factors is perceived support (as cited in Luthje & Franke, 2003). The literature also shows significant interest in three other factors: education (e.g., Kristiansen & Indarti, 2004; Peterman & Kennedy, 2003), experiences (e.g., Ucbasaran et al., 2009; Hisrich, 1998; Crant, 1999) and role models (e.g., Jacobowitz &Vidler, 1982; Shapero & Sokol, 1982; Krueger, 1993) in terms of their influences on the intention to start a business. Furthermore, a very new factor, 'extra-curricular activity,' has recently been suggested by many researchers. For example, Nguyen (2016) discovers a positive link between extra-curricular activities and a student's entrepreneurship potential. Abreu et al. (2014) also argue that if people often participate in entrepreneurship conferences and workshops, they can gain knowledge and capabilities about entrepreneurship; they then are more likely to engage in business ventures. Hence, this thesis limits itself to focusing on such factors. Detailed information is provided in the following sections (sections 3.2.1 to 3.2.4).

3.2.1 Entrepreneurship Education (Ed)

Entrepreneurship education has experienced a rapid, worldwide increase in interest. It develops and stimulates the entrepreneurial process and provides all tools necessary for starting new ventures (Postigo & Tomborini, 2002). It also plays a prominent role in cultivating the entrepreneurial spirit in students who could start new ventures (Lee et al., 2005).

Entrepreneurship education is the purposeful intervention by an educator in the life of the learner to help the learner survive in the business world (Isaac et al., 2007). In a narrow sense, it is an action orientation primarily embodied in teaching students how to develop a business plan (Ronstadt, 1985, cited in Krueger, 2002). In a broader sense,

it is all about the development and improvement of entrepreneurial inspiration, awareness, knowledge, and skills that are much required to successfully establish and run an entrepreneurial venture (Bassey & Archibong (2005), cited in Ekpod (2011)). Hence, it is a material component of business school education (Kolvereid & Moen, 1997) that provides a stimulus for individuals making career choices to consider self-employment. It thereby increases new-venture creation and economic growth.

"Entrepreneurial education represents a mixture of entrepreneurial learning, development of skills and, most importantly, changes in the way of thinking'' (Sedlan-Konig, 2013, p.3). Simply, entrepreneurship education is identified with training for firm creation. In this case, it can be seen as ''opportunity recognition, marshaling of resources in the presence of risk, and building a business venture'' (Bull et al., 2008). Similarly, it is "the process of equipping individuals with the notions and skills to realize opportunities that others have overlooked and to have the insights and self-esteem to act when others hesitate. It includes instruction in opportunity recognition, marshalling resources in the face of risk, and initiating a business venture" (McIntyre & Alon, 2005, p. 33).

In entrepreneurship education, a central premise is that entrepreneurship is a learned phenomenon. In other words, entrepreneurs are not born as entrepreneurs. However, they are produced by learning and practicing. Their knowledge can be developed and learned from teachers, parents, mentors, and role models (Volery, 2004). According to many studies, entrepreneurial skills associated with entrepreneurial behavior are learnable (Bird, 1998; Mayhew et al., 2016). It has been shown that entrepreneurship, or certain facets of it, can be taught (Kuratko, 2005, p.580). For example, students who are interested in creating new businesses (that is, 'entrepreneurship') can learn a range of skills such as planning, risk-taking, market analysis, problem solving, and creativity, which will support their new ventures in the future (McMullan & Long, 1987). They can also be educated to identify more business opportunities and to be more innovative (DeTienne & Chandler, 2004). In addition, any types of entrepreneurial competencies can also be "fostered, facilitated, and nurtured" through entrepreneurship education (Bird, 1998, p. 67). Consequently, in response to the growth and availability of entrepreneurship education, there have been an accumulating number of students showing interest in entrepreneurial careers (Kolvereid, 1996). The

quantity and quality of entrepreneurs across the globe are also increasing (Drucker 1985; Henry, Hill, & Leitch 2005; Kuratko 2005). Hence, sustainable economic development and competitive advantage can be driven (Sine & Lee 2009).

Entrepreneurship education is commonly considered imperative, positively enriching and enhancing entrepreneurship orientation, leading to the acquisition of skills, creativity, confidence, drive, and courage for self-employment. It is the basis for knowledge and skills, in the sense of passage to entrepreneurship (Cooper &Park., 2008; Teixeira, 2017). Krueger and Brazeal (1994) assert that preparation is a fundamental element for producing potential entrepreneurs because opportunities are only caught by those who are prepared to grasp them. They also stress that perceptions about entrepreneurship are extraordinarily fundamental and set a foundation for becoming an entrepreneur long before an individual decides to become one. Furthermore, to launch a new venture successfully, entrepreneurs must, among other things, be confident in their abilities and identify with their venture and role as an entrepreneur (Krueger & Brazeal, 1994).

The effectiveness of teaching entrepreneurship is widely debated in entrepreneurship research. Some studies show no causal links between entrepreneurial education and entrepreneurial behavior (Chen, Greene, & Crick, 1998; Kolvereid & Isaksen, 2006). However, the majority of studies manifest that there is a significant relationship between entrepreneurial training and the propensity to become an entrepreneur. Previous research studies have shown that there is a significant relationship between entrepreneurship education and career intention. Wilson, Kickul, and Marlino (2007) ascertain that entrepreneurship education could increase student's interest in entrepreneurship as a career. In particular, the study from Kolvereid and Moen (1997) report that students who are studying entrepreneurship have a higher intention to initiate a business. Noel (2002) proves that students who graduate in an entrepreneurship major obtain higher scores in entrepreneurial intention and entrepreneurial self-efficacy than do students in other subjects. Likewise, Varela and Jimenez (2001) state that the more a university invests in the promotion of entrepreneurship, the higher the percentage of students becoming entrepreneurs is. Additionally, Autio, Keeley, Klofsten, and Ulfstedt (2001) note that entrepreneurship education creates a positive image for the entrepreneurs and contributes to the choice of entrepreneurship as a professional alternative by

graduates. With a large sample of 17 European countries, Porter et al. (2002) (cited in Küttim, 2014) also show that entrepreneurship education contributes to the development of students' entrepreneurial intentions. The participants who take part in entrepreneurship-related courses positively affect entrepreneurial intentions.

Many studies have tried to identify the foreseen relationship between entrepreneurship education and entrepreneurial intentions/entrepreneurial activities. Pittaway and Cope's (2007) systematic review on entrepreneurship education re-confirms that entrepreneurship education affects students' intentions toward entrepreneurship, although they also indicate that it is uncertain whether such education affects certain entrepreneurial activities. Dickson et al. (2008) also posit that the dramatic rise in entrepreneurship education can manifest the premise that this linkage must exist. According to the comprehensive literature review, they conclude there is a positive relationship between entrepreneurial education and entrepreneurial activity. Nonetheless, Dickson et al. (2008) add that ''although (this link is) not yet definitely proven'' (Dickson et al., 2008, p. 250). Moreover, Packham et al. (2007) illustrate other facts (cited in Vasilache et al., 2007). With a sample of entrepreneurship students from France, Germany, and Poland, the work pronounces that enterprise education positively affects the entrepreneurial attitude of Polish students and has a small and positive effect on French students; however, it has a negative effect on German students.

Actually, the successful creation of a new venture requires a command and blend of skills that are different from those required to maintain an established business. Therefore, education about entrepreneurship and for entrepreneurship will increase students' interest in becoming entrepreneurs at some point after graduation (Friedrich & Visser, 2005, cited in Isaacs, 2007). Many studies are also in the same vein. Some examples are Izquierdo & Buelens (2008), Lüthje & Franke (2003), Peterman & Kennedy (2003), Kolvereid & Moens (1997), Souitaris et al. (2007), Athayde (2009), Davidsson & Honig (2003), and Galloway & Brown (2002). In these studies, students who completed entrepreneurship education programs are more likely to become entrepreneurs than are people who did not attend the course. This result aligns with the opinion that people are less likely to be entrepreneurs if they have limited education (Varghese & Hassan, 2012). In contrast, they would be more motivated to do something or able to

consider a career or self-employment if they feel they have relevant skills (Blackford et al., 2009).

In addition to the direct link between education and entrepreneurship intention, some mediating links between these variables have been revealed. In the study from Kuckertz & Wagner (2010), with a sample of southeast European postgraduates, self-efficacy is a mediator that bridges entrepreneurship education and entrepreneurial intention. Entrepreneurship courses appear to help students develop vital skills and abilities that could be considered essential for their careers, similar to what many scholars have advocated (Liñán et al., 2011). Consequently, students are more confident in their ability to perform entrepreneurial behaviors; their self-efficacy is greater than that of others who do not take the courses. Similar results are also noted by Zhao et al. (2005), Oosterbeek et al. (2008), and Lucas & Cooper (2004), who find that entrepreneurial self-efficacy fully mediates the effects of learning entrepreneurship on intentions.

Notably, some studies related to entrepreneurship education in the context of social entrepreneurship have been conducted. The same result is ascertained for business entrepreneurship. For example, Gliedt and Parker (2007) argue that the role of human capital in economic development and the principal sources of insight are preliminary sources for social entrepreneurship. Experience and skills are also considered a basis for social entrepreneurship (Murphy & Coombes, 2009). Greater knowledge will directly provide a greater awareness of the existence of the professional career option – entrepreneurship (Liñán, 2004). The more ideas and perceived knowledge people have about business, entrepreneurially and socially, the more likely they are to engage in social entrepreneurship. These skills and knowledge not only lead people to consider becoming a social entrepreneur more attractive, but also make them more secure in their abilities in running the business. Therefore, the following hypotheses are proposed:

H4a: Entrepreneurship Education (Ed) relates positively to Social Entrepreneurial Self-Efficacy (Self).

H4b: Entrepreneurship Education (Ed) relates positively to Social Entrepreneurial Outcome Expectation (OE).

H4c: *Entrepreneurship Education (Ed) relates positively to Social Entrepreneurial Intention (SEi).*

H4ac: Social Entrepreneurial Self-Efficacy (Self) mediates the effect of Entrepreneurship Education (Ed) on Social Entrepreneurial Intention (SEi).

H4bc: Social Entrepreneurial Outcome Expectation (OE) mediates the effect of Entrepreneurship Education (Ed) on Social Entrepreneurial Intention (SEi).

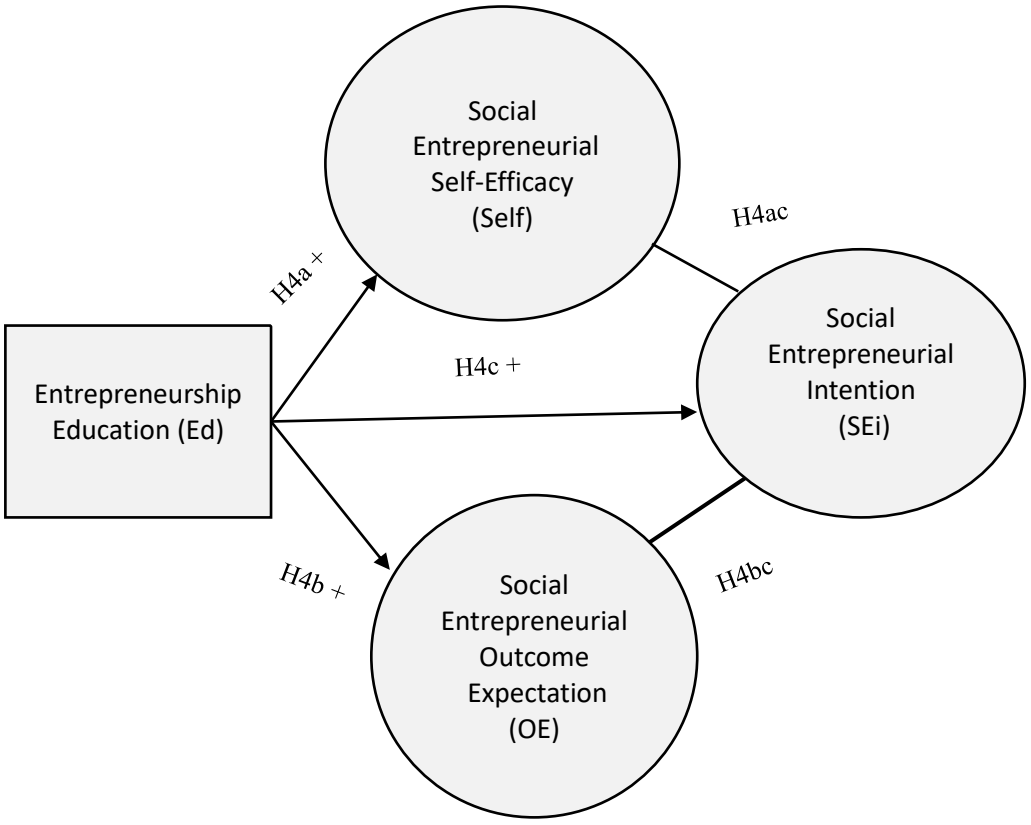

Figure 12. Effects of Ed on Self, OE, and SEi[19]

[19] *Author's own figure*

3.2.2 Entrepreneurship Experience (Ex)

Together with knowledge and skills, experiences are also the cognitive elements which influence venture creation (Shane et al., 2003) because "what do I know, including what do I know how to do" (Locke, 2000, p.409). University students, although still young in terms of their professional careers, hold other sources of competencies and skills that might contribute to perceived entrepreneurial capability. Typical examples of such sources and their effect on entrepreneurial intentions are professional business experiences (Teixera & Forte, 2017) and prior entrepreneurial exposure (Krueger, 1993). People make decisions and run businesses based on their past business experiences. They start doing businesses usually related to things that they did previously (Cooper, 1985). For students, substantial business experience before university can stem from previous business apprenticeships. In particular, students' previous apprenticeships can enhance their anticipated business, negotiation, and social skills, which are relevant to the task of setting up a business. Therefore, having done an apprenticeship can primarily influence students' perceived control. Specifically, entrepreneurship is a process consisting of identifying opportunity, collecting resources, organizing them and adapting strategies so that opportunity can be exploited. Furthermore, experiences are one of several factors affecting opportunity recognition (Shane, S., 2003).

The entrepreneurship literature suggests that experiences with firm formation increase the probability of starting up a new venture (Ucbasaran et al., 2009). Previous business exposure is attested to be a consistent and strong predictor of entrepreneurial intentions (Hisrich, 1998). Crant (1999) discovers that previous business experience strongly influences intention to be an entrepreneur. Scherer et al. (1989) assert that different learning histories and experiences might distinguish an entrepreneur from a non-entrepreneur. They argue that different backgrounds and experiences might be the distinguishing factors influencing students' choice of self-employment as a career option. Prior activities associated with starting a business connect strongly to the intention to start a business after leaving university. There is also the indication that those students who show initiative in arranging work experiences and internships are more likely to start a business. This consequence likely relates, for example, to prior entrepreneurial orientation, peer groups, and university guidance. Having this established indicative baseline, it is opportune to progress and identify factors that change students'

entrepreneurial orientation. Experienced entrepreneurs are argued to be better suited to recognizing business opportunities and to be even more innovative than novice entrepreneurs are. Past entrepreneurial behavior is an important stimulus for an actual decision to engage in entrepreneurship (Delmar & Davidsson, 2000; Ucbasaran et al., 2009). Juster (1975) asserts that education and experiences are the primary determinants of individual earnings for employees. Notably, Kitagawa et al. (2015) show that the more experience people have with entrepreneurship, the more likely they are to prefer to start their own business. Cooper et al. (1994), Evans & Jovanovic (1989), Taylor (2001), and Bates (1990) also investigate experience as a determinant of entrepreneurial intention and selection. This potential relationship raises the question of whether there is a direct link between experiences and intention in entrepreneurship.

Furthermore, the experiences, knowledge, and skills people obtain through previous jobs will likely improve both competencies and expected returns for exploiting opportunities (Davidson & Honig, 2003). From the classical intention models, prior experiences influence intentions indirectly through attitude and perceived controllability (Ajzen, 1991), through feasibility and desirability (Shapero, 1982), or through self-efficacy (Boy & Vozikis, 1994). Perceived entrepreneurial self-efficacy is the cognitive measure and is similar to Shapero's (1982) perceived feasibility and Ajzen's (1991) perceived behavioral control.

Krueger et al. (2000) observe that personal and situational variables indirectly determine entrepreneurial intentions through attitudes and perceptions (i.e., perceived desirability of self-employment and perceived entrepreneurial self-efficacy). Accordingly, entrepreneurship education and previous entrepreneurial experience will affect entrepreneurial intentions only if they change these fundamental attitudes and perceptions. Zhao et al. (2005) also ascertain that among other variables, perceptions of formal learning from entrepreneurship-related courses have the highest positive relationship with intentions through the mediation of entrepreneurial self-efficacy. Skinner et al. (1990) ascertain that control beliefs partially mediate the effect of competencies on entrepreneurial intentions. Participants who had shown entrepreneurial competence early in life developed higher entrepreneurial intentions in adulthood because they were confident that they could be successful. In other words, characteristics

and experiences in early stages appear to be associated with entrepreneurial thinking in adulthood (Krueger, 2007).

Dell McStay (2008) confirms that previous entrepreneurial experience increases students' desire for self-employment and students' perceived entrepreneurial self-efficacy (their belief in their ability to be self-employed). An enhancement of self-efficacy, in turn, can result in increased intentions toward a target goal. The intention of a person to create a new business will be more energetic when he or she has a high degree of self-efficacy resulting from mastery experience/knowledge (Boyd & Vozikis, 1994). Some researchers, however, indicate that prior entrepreneurial experiences have no significant effect on entrepreneurial attitudes (Davidsson, 1995).

In social entrepreneurship, Bill Drayton (2004) in his interview with Meehan said that entrepreneurial experiences are the first stepping-stone for social entrepreneurship because they can strengthen particular cognitive abilities for new ventures. Similarly, Murphy and Coombes (2009) suggest that experience and skills are a basis for social entrepreneurship, as is true in business entrepreneurship. Singh (2000) in his literature review recognizes that as social entrepreneurs act like business entrepreneurs, the same skills should be applicable. The findings of Handy and Ranade's (2002) quantitative study show that non-profit entrepreneurs receive a high payroll from promoting social causes. People's beliefs, culture, social class, education, previous experience in the public sector, and family background also play significant roles in the intention to run a new social venture. Based on the above discussion, hypotheses can be formulated as follows:

H5a: Entrepreneurship Experience (Ex) relates positively to Social Entrepreneurial Self-Efficacy (Self).

H5b: Entrepreneurship Experience (Ex) relates positively to Social Entrepreneurial Outcome Expectation (OE).

H5c: *Entrepreneurship Experience (Ex) relates positively to Social Entrepreneurial Intention (SEi).*

H5ac: Social Entrepreneurial Self-Efficacy (Self) mediates the effect of Entrepreneurship Experience (Ex) on Social Entrepreneurial Intention (SEi).

H5bc: Social Entrepreneurial Outcome Expectation (OE) mediates the effect of Entrepreneurship Education (Ex) on Social Entrepreneurial Intention (SEi).

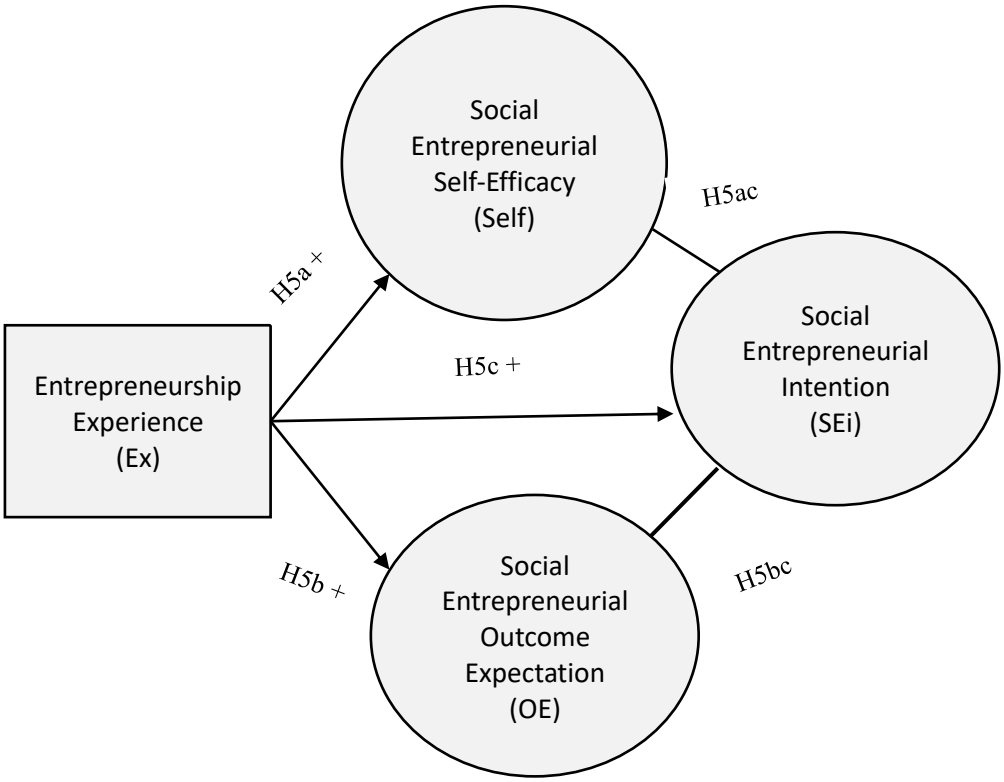

Figure 13. Effects of Ex on Self, OE, and SEi[20]

[20] *Author's own figure*

3.2.3 Entrepreneurship Extra-curricular Activity (Ea)

Entrepreneurship extra-curricular activities (Ea) are described as all of those activities with respect to entrepreneurship that are offered inside and outside of universities (Giudice, et al., 2014). As entrepreneurship education is a non-traditional business discipline and there is no dominant pedagogical model, extra-curricular activities must be utilized (Plumly, L.W. et al., 2008, cited in Matlay et al., 2015). It occurs beyond the traditional activity, carries an element of risk, leads to financial rewards, and is innovative. Entrepreneurial extra-curricular activities involve actions, experiences, and newness. They are inherently learning-by-doing processes linked to new business creation (Abreu et al., 2014). In other words, they are 'action-oriented' and based on 'experiences'. Action can be exposed in three parts: the act of doing, the experience received in the doing of a process and the learning accumulated from experiences (Rae, 2000). It is a means of enhancing formal entrepreneurship education by giving additional space outside of the curriculum and allowing students to take entrepreneurial initiatives (Pittaway et al., 2010).

Entrepreneurial extra-curricular activities can be considered an informal education or non-accredited activities. They can comprise a wide range of actions, such as games, competitions (at regional, national, or international level), clubs, internships, workshops, conferences, and speeches by entrepreneurs and role models, and networking events. Within these extra-curricular activities, students will engage more in initiative taking. For example, business plan competitions are a way to infuse some competitive fire into a coherently safe environment (Welsch, 2004). Entrepreneurship clubs function as a platform on which students are free to involve themselves in the entrepreneurial atmosphere and in a wide range of entrepreneurial activities. In the student clubs, participants can take initiative, work in a team, share knowledge, and share experiences with one another. Furthermore, the clubs give the students chances to act as a consultant. The students can apply models, theories, and tools to gain an understanding of the entrepreneurial process and conduct specific tasks (Czuchry & Yasin, 2008). Moreover, participating in entrepreneurship conferences and workshops also provides excellent opportunities to interact with specialists and to improve knowledge and capabilities about entrepreneurship (Abreu et al., 2014).

Recently, empirical studies have been done on this specific topic. However, there are controversial results. For instance, Nguyen (2016) discovers a positive link between extra-curricular activities and student entrepreneurship potential; specifically, the influence is mediated through perceived entrepreneurship desire and feasibility. In contrast, Arranz (2016) reveals that extra-curricular activities generate positive reactions for entrepreneurship but at the same time reduce the capacity and intention of students to start a business. Nevertheless, common opinions concerning entrepreneurship education are that the role of extra-curricular activities in entrepreneurship is remarkably important. Many programs discover the need for accelerated offerings to recruit and encourage students who have entrepreneurial aspirations and well-developed plans. If the extra-curricular activities are very well integrated into the educational process, they can provide intensive practical experiences for students and can connect their theoretical notions and real-world experiences. Extra-curricular activities not only enhance learning but also seek to educate, inspire, and encourage entrepreneurial interest. They directly develop enterprising skills, either as a means to magnify employability or as a method of gaining skills relevant to future business creation (Zapalska & Edwards, 2001). They help students manage their time better, make more informed and thoughtful decisions, and improve their ability to communicate (Kotts et al., 2015). Entrepreneurship extra-curricular activities contribute a significant function to the development of students' entrepreneurial competencies, interests, and passions. They provide practical insights into entrepreneurship that curricular education occasionally cannot or does not yet offer. These activities gently orient students to be more engaged in entrepreneurship (Lilischkis et al., 2015).

In order to disseminate knowledge and promote spirit concerning entrepreneurship in general and social entrepreneurship in particular, many institutions and universities recently have hosted relevant national and international conferences on their campuses. For example, focusing on social entrepreneurship, the University of Cambridge in England[21], Zhejiang University[22] in China in 2007, the State University of New Jersey[23] in the USA, Shanghai University[24] and University of International Business and Economics[25] in China in 2009 separately held international forums on social entrepreneurship. Likewise, at the National Economics University[26] in Vietnam, two conferences about social entrepreneurship were held in 2016 and 2017 with the same purpose of spreading social entrepreneurship in Asia. All of these conferences gather

entrepreneurs and social entrepreneurs, enlarge their social networks for research, and increase their level of social capital. Moreover, universities can invite social entrepreneurs to lecture in the classroom to promote the consciousness of college students, which is a primary force with respect to starting social entrepreneurship activities. Therefore, three following hypotheses are proposed:

H6a: Entrepreneurship Extra-curricular Activity (Ea) relates positively to Social Entrepreneurial Self-Efficacy (Self).

H6b: Entrepreneurship Extra-curricular Activity (Ea) relates positively to Social Entrepreneurial Outcome Expectation (OE).

H6c: *Entrepreneurship Extra-curricular Activity (Ea) relates positively to Social Entrepreneurial Intention (SEi).*

H6ac: Social Entrepreneurial Self-Efficacy (Self) mediates the effect of Entrepreneurship Extra-curricular Activity (Ea) on Social Entrepreneurial Intention (SEi).

H6bc: Social Entrepreneurial Outcome Expectation (OE) mediates the effect of Entrepreneurship Extra-curricular Activity (Ea) on Social Entrepreneurial Intention (SEi).

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[21] https://www.cam.ac.uk/

[22] http://www.zju.edu.cn/english/

[23] www.rutgers.edu

[24] http://en.shu.edu.cn/Default.aspx

[25] http://www.uibe.cn/app/eng/

[26] http://en.neu.edu.vn/

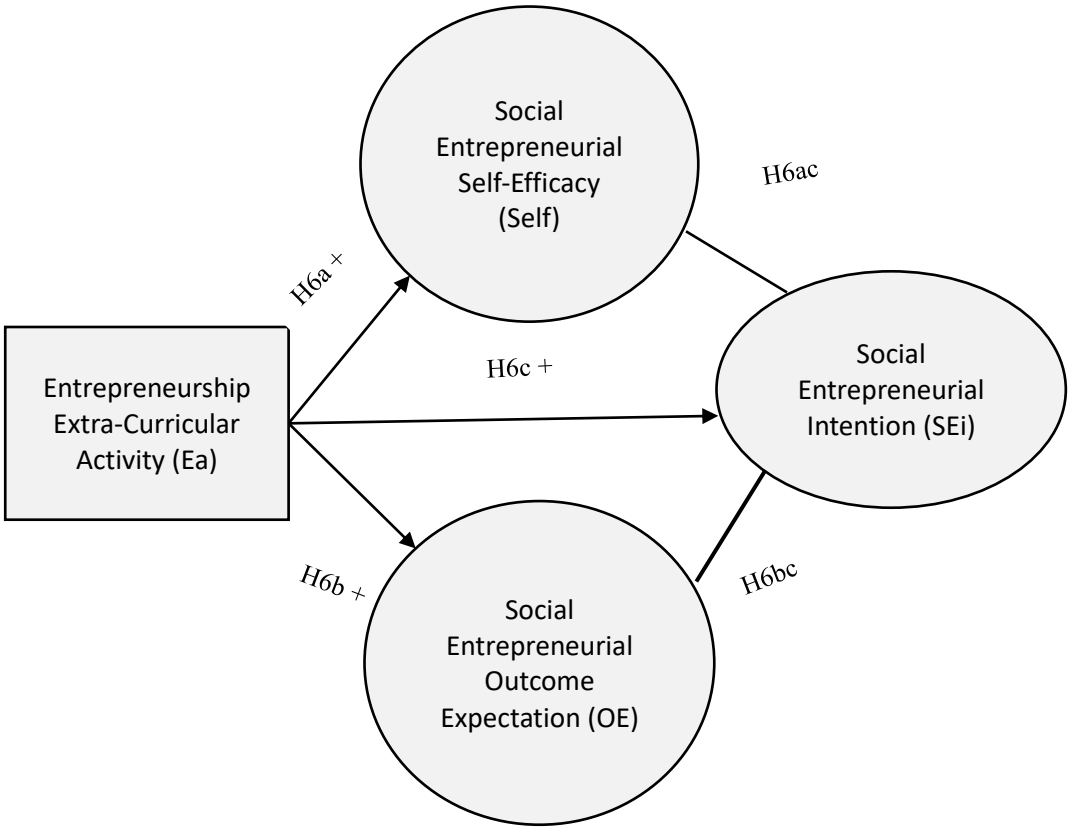


Figure 14. Effects of Ea on Self, OE, and SEi [27]

[27] *Author's own figure*

3.2.4 Role Model (Rm)

Role models are defined as those whose life and activities influence the observers in specific life decisions (Basow & Howe, 1980, p.559). They can be "worthy of imitation in some area of life" (Pleiss & Feldhusen, 1995, p163). Alternatively, they can be "real or theoretical persons perceived as being ideal standards for emulation in one or a selected number of roles" (Kurtines et al., 1991). Role models can be parents or other family members. They might include relatives, classmates, work peers, and observed strangers (Shapero and Sokol 1982). They might also be employers, teachers, or anyone whom the individual has had the opportunity to observe (Scherer et al., 2017).

Numerous theories demonstrate how role models influence career development such as entrepreneurship (Nauta & Kokaly, 2001; Betz & Hackett, 1981). The influence of role models can be illuminated by identification and social learning theory (Gibson, 2004). Identification with role models helps individuals define their self-concepts (Akerlof & Kranton, 2005). Social learning theory contends that individuals can learn by observing the behavior of others and by noting the subsequent outcomes (Bandura, 1977; 1986). Specifically, in entrepreneurship, the observation of role models enables individuals to learn specific skills, knowledge, and behaviors that are relevant and essential for embarking on a new venture (Scherer et al., 2017). Then, the individuals can learn to try to do things as their role models in order to obtain similar benefits or successes. For instance, if parents are entrepreneurs, entrepreneurship appears to be more attractive for their children than for children of employed parents (Saeed et al., 2014), as every day, children can see and learn how and what their parents do and reflect themselves. In general, individuals who have family members or close friends who are entrepreneurs tend to be more likely to start their own business than are those who do not have such associations (Cooper & Dunkelberg, 1986).

Many empirical studies exist on role models and entrepreneurship. Fred L. Fry & Howard Van Auken (2003) ascertain that role models have a link with a preference for self-employment. Cooper and Dunkelberg (1986) note that being a firm founder is influenced by role models. Davidsson and Wiklund (1997) report that awareness of other entrepreneurs boosts entrepreneurial ambitions. Schröder and Schmitt-Rodermund (2006) argue that observing others can affect an individual's career choices and decisions.

Overall, informal observation of role models has the potential to encourage one to follow a certain career path (Krumboltz, 2008).

Specifically, with respect to entrepreneurial intention, the literature shows a controversial discussion. Fry and Van Auken (2003) find a negative effect between entrepreneurial intention and role model. That is, this study shows the unusual result that the more often students interact with entrepreneurs, the less likely they intend to be entrepreneurs. Carsrud et al. (1989) show in a neutral way that the existence of role model is not associated with entrepreneurial intentions. For example, many youths have successful entrepreneurial parents (parental role models), but they do not engage in entrepreneurship (Brockhaus & Horwitz, 1986, cited in Krueger, 2002). In contrast, Amouri and Ababsa (2016) state an opposite result. They survey a sample of 180 final-year students in Tunisia and ascertain that such a role model has a positive and significant effect on entrepreneurial intention. The common argument along this positive line is that the natural way to acquire such tacit knowledge concerning how to start-up a new business is through observation of others, parents and close friends in particular. Therefore, a large number of business creators have close role models who stimulated them to start their owned businesses (Davidson, 1995). Observing entrepreneurial role models alone does not provide students with the necessary knowledge and skills to become a successful entrepreneur. However, it serves as an additional ingredient for choosing the career path of an entrepreneur. Entrepreneurial role models are considered encouragement, with a positive attitudinal effect on those considering becoming entrepreneurs (Schröder and Schmitt-Rodermund, 2006). In the social entrepreneurship context in particular, research by Tran & von Korflesch (2017), with a sample of 291 students from National Economics University in Hanoi, Vietnam, recently found that role models have a direct and positive effect on social entrepreneurial intention.

In the same vein of studying the relationship between entrepreneurial intention and role models, SCCT (Lent et al., 1994) proposes a different perspective. The theory suggests that role models does not directly but rather indirectly affect career choices through self-efficacy, interests, and expectations of outcomes. Self-efficacy results from vicarious learning, whereby the observer learns how to differentiate between productive and non-productive behaviors (Betz & Hackett, 1981). It enables individuals to feel that they can control a situation, and they therefore consider starting a business to be a feasible

course of action (Krueger & Dickson 1993). In particular, Alan Carsrud and his colleagues presume that role model can change individuals' critical attitudes such as self-efficacy perception; in turn, such perception can promote entrepreneurial thinking (Carsrud, & Johnson, 1989). Seeing and interacting with entrepreneurs can affect observers' beliefs in the consequences of their startup (Bandura, 1977). Delmar's work adds that the greater similarities the observers assume from their Role Model, the more persuasive successes and failures they obtain (Delmar, 1996, cited in Davidsson & Wiklund, 2013). Watching others performing a task can influence attitudes toward behaviors, especially if there are similarities between the observer and the observed person (Cooper & Park, 2008, cited in Linan, 2011).

In summary, the findings in the literature on the relationship between role model and entrepreneurial intention continue to be discussed. Notably, in the unique context of social entrepreneurship, this relationship should be examined. Is there a link (negative or positive) between role model and social entrepreneurial intention? Is this link direct? Does social entrepreneurial self-efficacy or social entrepreneurial outcome expectation mediate this link? These questions are inform the following hypotheses:

H7a: Role Model (Rm) relates positively to Social Entrepreneurial Self-Efficacy (Self).

H7b: Role Model (Rm) relates positively to Social Entrepreneurial Outcome Expectation (OE).

H7c: *Role Model (Rm) relates positively to Social Entrepreneurial Intention (SEi).*

H7ac: Social Entrepreneurial Self-Efficacy (Self) mediates the effect of Role Model (Rm) on Social Entrepreneurial Intention (SEi).

H7bc: Social Entrepreneurial Outcome Expectation (OE) mediates the effect of Role Model (Rm) on Social Entrepreneurial Intention (SEi).

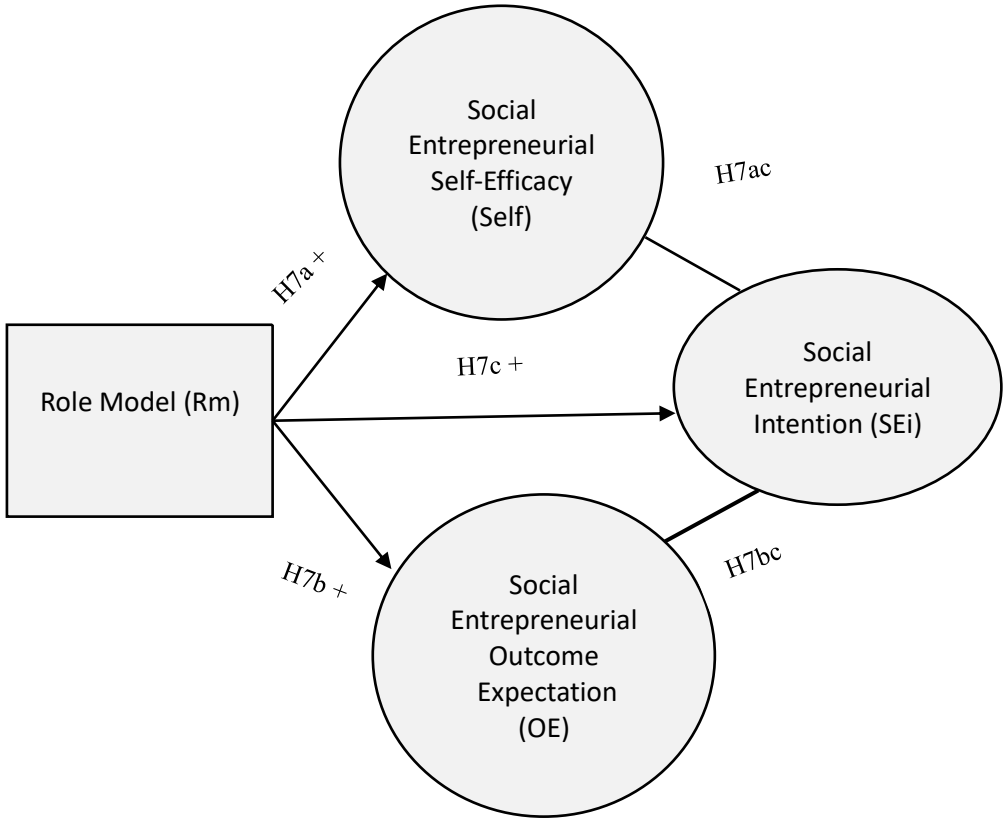


Figure 15. Effect of Rm on Self, OE, and SEi [28]

[28] *Author's own figure*

3.2.5 Perceived Support (Ps)

Entrepreneurial activity is shaped by the contextual elements encompassing economic, political, and structural conditions (Turker & Selcuk, 2009). These elements might interfere with individuals by creating perceived barriers or gateways that could either deter or foster their entrepreneurial actions. However, in this thesis, the positive perspective of so-called 'perceived support' is considered.

Perceived support is understood as expected support from individuals' close ties or institutional organizations for the start-up procedures in all three dimensions: economic, political, and structural conditions. Economic support for entrepreneurship includes venture capital availability, favorable credit conditions, and infrastructures. Political support for entrepreneurship comprises the country's favorable laws and regulations toward entrepreneurship. Finally, conceptualized structural support is the policies, regulations, and programs that the country has undertaken to support entrepreneurship (Turker & Selcuk, 2009).

Taylor and Thorpe (2004) propose that an individual's networks act as a resource for information that can influence decision-making throughout the entrepreneurial process. There is evidence that business owners tend to have strong supporters whereby the support from surrounding networks appears to be particularly important in establishing a business. This network encompasses family, friends, fellow networks, or other institutions (i.e., banks, government, incubators, social organizations (Davidsson & Honig, 2003). Furthermore, Bruderl and Preisendorfer (1998) assert that consulting and networking received from a robust network is useful, reliable, and exclusive for entrepreneurs. In this sense, prospective entrepreneurs can rely on support providing knowledge and good advice from family members or friends or from other institutions. They can acquire knowledge about managerial and business processes and about market prices, which are not available elsewhere (Evans & Jovanovic, 1989). This knowledge is expected to provide a competitive advantage and a better chance of business survival for those individuals' new ventures.

In particular, family ties are supposed to affect an individual's intentions toward a business start-up (Aldrich & Martinez, 2001; Greve & Salaff, 2003; Henderson & Robertson, 2000). Parents, siblings, or spouses will say something when an individual starts up a venture. At some times, they can be supportive, and at other times, they can

be defensive. Support and encouragement from relatives and friends also have proved to be associated with the development of entrepreneurs (Davidson & Honig, 2003).

Furthermore, institutional support plays a vital role in fostering entrepreneurship (Kristiansen & Indarti, 2004). For instance, the government can define a tax reduction policy for start-ups. It can organize programs to finance start-up projects. It can implement activities for networking or consulting start-ups and for potential entrepreneurs. These movements might significantly increase the degree of a person's cognitive desire and perception of feasibility to initiate a new venture. The person is then more likely to run a business. However, these arguments are conceptual. They must be tested statistically.

In fact, the literature shows that there are many empirical studies in this vein. For example, the study from Luthje and Franke (2003) determines that the relationship between Perceived Support and entrepreneurial attitudes is statistically significant. Liñán and Santos (2007) report only weak links between the perceived support (i.e., social capital) and cognitive constructs addressing entrepreneurship. This study identifies an indirect link from perceived support to entrepreneurial intentions through perceived desirability (i.e., outcome expectation) and perceived feasibility (i.e., self-efficacy). However, Liñán (2008) illustrates a direct link between close environment support and personal attraction toward entrepreneurship. Therefore, a questionnaire on the relationship between perceived support and entrepreneurial intention should be considered.

In summary, perceived support in finance, advice, encouragement, and contact information theoretically plays a crucial function in encouraging individuals to pursue their entrepreneurial careers (Sequeira, Mueller, & McGee, 2007). People who perceive the existence of business opportunities (e.g., access to capital and availability of business information) are likely to decide to start a new business (Luthje & Franke, 2003) because they believe that they have adequate and feasible abilities for an entrepreneurial career (Liñán & Santos, 2007). In general, entrepreneurship is facilitated when information comes from a wide range of trustworthy personal contacts in a personal network (Johannisson, 1991). In particular, at the beginning of a venture, people use networks to exchange ideas and advice, generate new ideas, pursue visions and collect resources rather than decrease uncertainty as in the case of general management (Johannisson,

2000). Therefore, the optimism or pessimism of the social entrepreneur's network often influences idea development and solution discussions. Here, important factors are not only direct contacts but also various potential linkages to lawyers, bankers, venture capitalists, accountants, technical consultants, academics, customers, suppliers, or trade associations (Carsrud &Johnson, 1989). All of these arguments might be the same in the context of social entrepreneurship. The perceived support from the current opportunities (e.g., access to capital and availability of information) orients people to be more likely to choose to start a new business. To conclude, we suppose that perceived support has a significant effect on entrepreneurship as a career choice:

H8a: Perceived Support (Ps) relates positively to Social Entrepreneurial Self-Efficacy (Self).

H8b: Perceived Support (Ps) relates positively to Social Entrepreneurial Outcome Expectation (OE).

H8c: *Perceived Support (Ps) relates positively to Social Entrepreneurial Intention (SEi).*

H8ac: Social Entrepreneurial Self-Efficacy (Self) mediates the effect of Perceived Support (Ps) on Social Entrepreneurial Intention (SEi).

H8bc: Social Entrepreneurial Outcome Expectation (OE) mediates the effect of Perceived Support (Ps) on Social Entrepreneurial Intention (SEi).

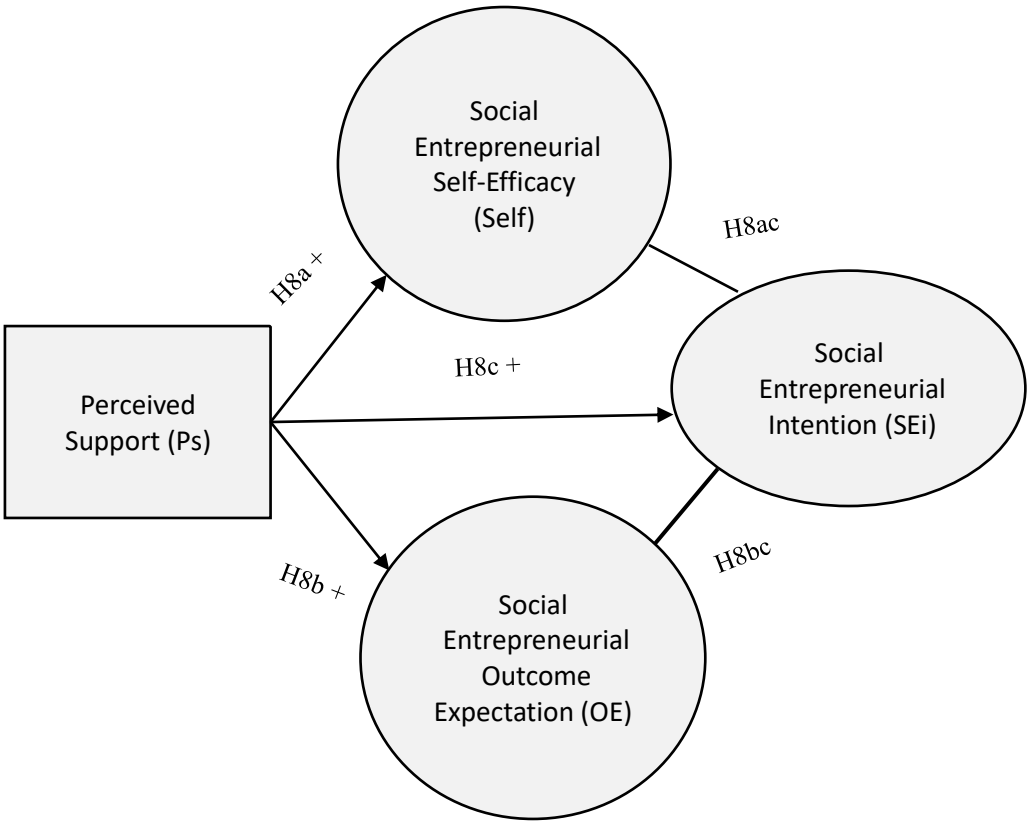


Figure 16. Effects of Ps on Self, OE, and SEi [29]

[29] *Author's own figure*

3.3 Hypothesis Summary

In total, twenty eight hypotheses are proposed in section 3.2. Three hypotheses (H1, H2, and H3) are related to the three main SCCT constructs: Social Entrepreneurial Intention (SEi), Social Entrepreneurial Self-Efficacy (Self), and Social Entrepreneurial Outcome Expectation (OE). The remainder refer to the relationships between the SCCT variables (i.e., SEi, Self, OE) and the five contextual factors: Entrepreneurship Education (Ed), Entrepreneurship Experience (Ex), Entrepreneurship Extra-curricular Activity (Ea), Role Model (Rm), and Perceived Support (Ps). Notably, there are hypotheses suggesting direct relationships between variables and others concerning indirect relationships.

Three groups of direct relationships are proposed. The first group describes the seven direct links from Self, OE, Ed, Ex, Ea, Rm, and Ps to Social Entrepreneurial Intention (SEi) (see table 6). The second group illustrates the five direct connections from Ed, Ex, Ea, Rm, and Ps to Social Entrepreneurial Self-Efficacy (Self) (see table 7). The last group displays six direct effects of Self, Ed, Ex, Ea, Rm, and Ps on Social Entrepreneurial Outcome Expectation (OE) (see table 8).

Table 6. Hypotheses about Direct Effects on Social Entrepreneurial Intention[30]

#	Dependent Variable	Name	Content
Direct Relationship			
1	**Social Entrepreneurial Intention**	H1	*Self relates positively to SEi*
2		H2	*OE relates positively to SEi*
3		H4c	*Ed relates positively to SEi*
4		H5c	*Ex relates positively SEi.*
5		H6c	*Ea relates positively to SEi*
6		H7c	*Rm relates positively to SEi*
7		H8c	*Ps relates positively to SEi*

[30] *Author's own table*

Table 7. Hypotheses about Direct Effects on Social Entrepreneurial Self-Efficacy[31]

#	Dependent Variable	Name	Content
Direct Relationship			
1	**Social Entrepreneurial Self-Efficacy**	H4a	*Ed relates positively to Self*
2		H5a	*Ex relates positively to Self*
3		H6a	*Ea relates positively to Self*
4		H7a	*Rm relates positively to Self*
5		H8a	*Ps relates positively to Self*

Table 8. Hypotheses about Direct Effects on Social Entrepreneurial Outcome Expectation[32]

#	Dependent Variable	Name	Content
Direct Relationship			
1	**Social Entrepreneurial Outcome Expectation**	H3	*Self relates positively to OE*
2		H4b	*Ed relates positively to OE*
3		H5b	*Ex relates positively to OE*
4		H6b	*Ea relates positively to OE*
5		H7b	*Rm relates positively to OE*
6		H8b	*Ps relates positively to OE*

[31, 32] *Author's own tables*

In terms of indirect links, there are two categories. The first one refers to the mediation between Social Entrepreneurial Intention (SEi) and the five contextual factors such as Entrepreneurship Education (Ed), Entrepreneurship Experience (Ex), Entrepreneurship Extra-curricular Activity (Ea), Role Model (Rm), and Perceived Support (Ps) via Social Entrepreneurial Self-Efficacy (Self) (see table 9). The second one mentions that Social Entrepreneurial Outcome Expectation (OE) is the mediator for the paths from five contextual variables (i.e., Ed, Ex, Ea, Rm, and Ps) to SEi (see table 10).

Table 9. Hypotheses about Indirect Effects on SEi by the mediator Self [33]

#	Mediator	Name	Content
Indirect Relationship			
1	**Social Entrepreneurial Self-Efficacy**	H4ac	*Self mediates the effect of Ed on SEi*
2		H5ac	*Self mediates the effect of Ex on SEi*
3		H6ac	*Self mediates the effect of Ea on SEi*
4		H7ac	*Self mediates the effect of Rm on SEi*
5		H8ac	*Self mediates the effect of Ps on SEi*

Table 10. Hypotheses about Indirect Effects on SEi by the mediator OE [34]

#	Mediator	Name	Content
Indirect Relationship			
1	**Social Entrepreneurial Outcome Expectation**	H4bc	*OE mediates the effect of Ed on SEi*
2		H5bc	*OE mediates the effect of Ex on SEi*
3		H6bc	*OE mediates the effect of Ea on SEi*
4		H7bc	*OE mediates the effect of Rm on SEi*
5		H8bc	*OE mediates the effect of Ps on SEi*

[33] *Author's own table*

[34] *Author's own table*

3.4 Thesis' Framework Model

As elaborated below, at the first level, Social Entrepreneurial Intention (SEi) is considered positively influenced by the two cognitive constructs Social Entrepreneurial Self-Efficacy (Self) and Social Entrepreneurial Outcome Expectation (OE). Social Entrepreneurial Self-Efficacy also affects Social Entrepreneurial Outcome Expectation positively.

Concerning the effects from contextual factors on SEi, Self, and OE, the five variables containing Entrepreneurship Education (Ed), Entrepreneurship Experience (Ex), Entrepreneurship Extra-Curricular Activity (Ea), Role Model (Rm), and Perceived Support (Ps) are considered at the second level. In detail, all three cognitive variables, SEi, Self, and OE, are also proposed to be influenced positively by the antecedents Ed, Ex, Ea, Rm, and Ps. Furthermore, the relationships among the five contextual factors and Social Entrepreneurial Intention (SEi) are hypothesized to be mediated by the mediators Self and OE.

With respect to the direct relationships among all factors, the graphical illustration is presented in figure 17.

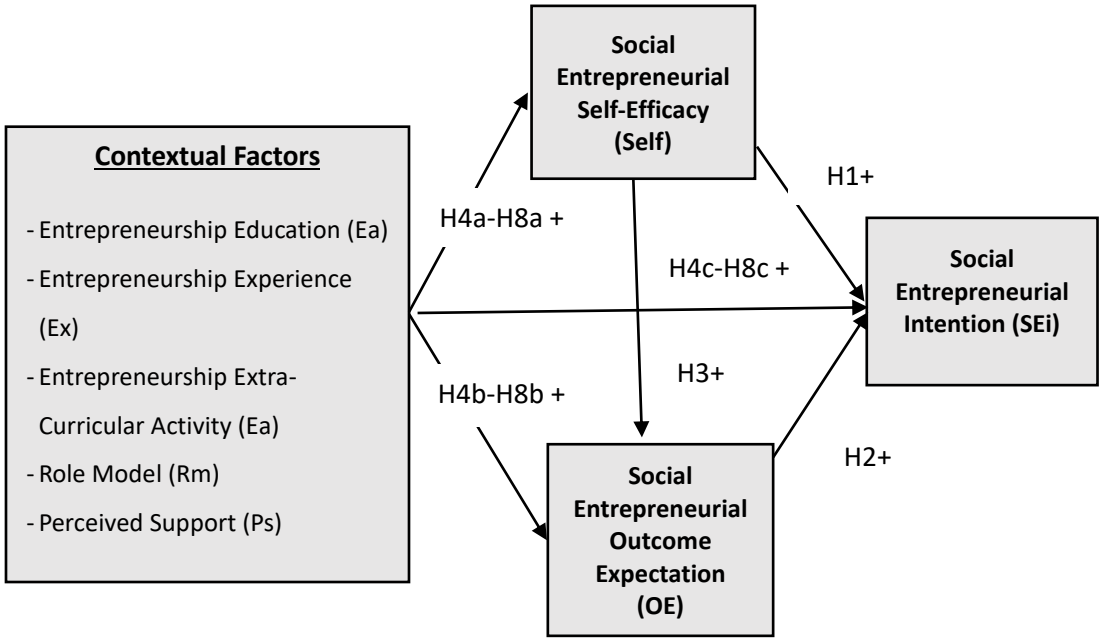


Figure 17. Direct Relationships among All Factors[35]

[35] *Authors' own figure*

With respect to indirect links, figure 18 provides the model of mediation between Social Entrepreneurial Intention (SEi) and the contextual factors via Social Entrepreneurial Self-Efficacy (Self). Similarly, the model of mediation via Social Entrepreneurial Outcome Expectation (OE) is displayed in figure 19.

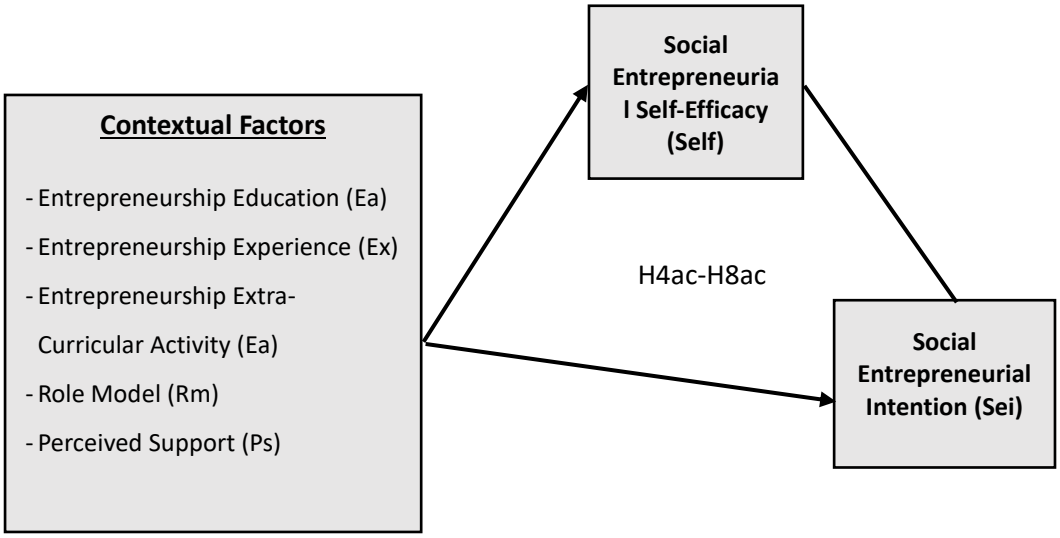


Figure 18. Mediation Model between Contextual Factos and SEi via Self [36]

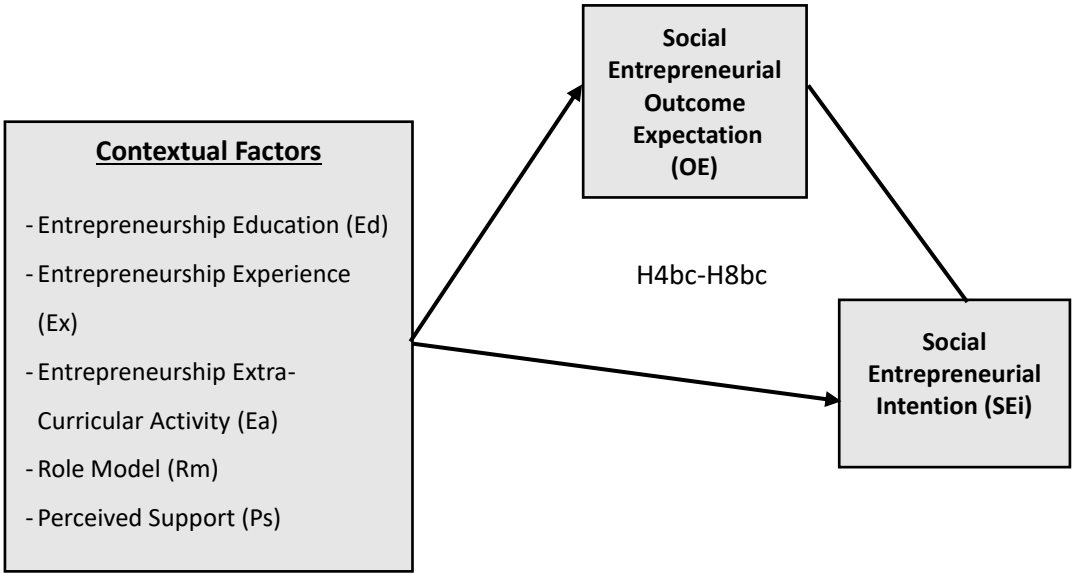


Figure 19. Mediation Model between Contextual Factors and SEi via OE [37]

[36,37] *Author's own figures*

In addition, it is necessary to include potential control variables when examining the models. One of the most frequent arguments is that people with different demographics might tend to show different answer patterns (Brännback et al., 2007). For instance, there is a common premise that men and women have different motivations and intentions for becoming entrepreneurs (e.g., Boisson et al., 2006; Liñán & Chen, 2007; Ruhle et al., 2010). Sector (2001) even contends that men appear to have higher intention toward entrepreneurship than women do. Another factor such as family business background is also very often discussed with respect to business entrepreneurship. People who have a business family in most cases have more encouragement and motivation toward entrepreneurship than do those without such a family (Stephens et al., 2006). In particular, if parents are entrepreneurs, entrepreneurship is more appealing to their children than to children of an employed family (Van Auken et al., 2006). Furthermore, if the sample is students, their studying major can relate to entrepreneurial behaviors. Students with business discipline might have a strong intent to become involved in a professional business, either new venture creation or an existing business purchase (Kennedy et al., 2003). Students in different universities can also have different opinions concerning entrepreneurship. For example, students from a business university might be more interested in entrepreneurship than students from technical university are. Therefore, the thesis employs these four demographic factors (i.e., gender, studying major, university, and business family background) as control variables.

For this thesis, all previous models together with control variables are integrated into one comprehensive model, which is presented in figure 20.

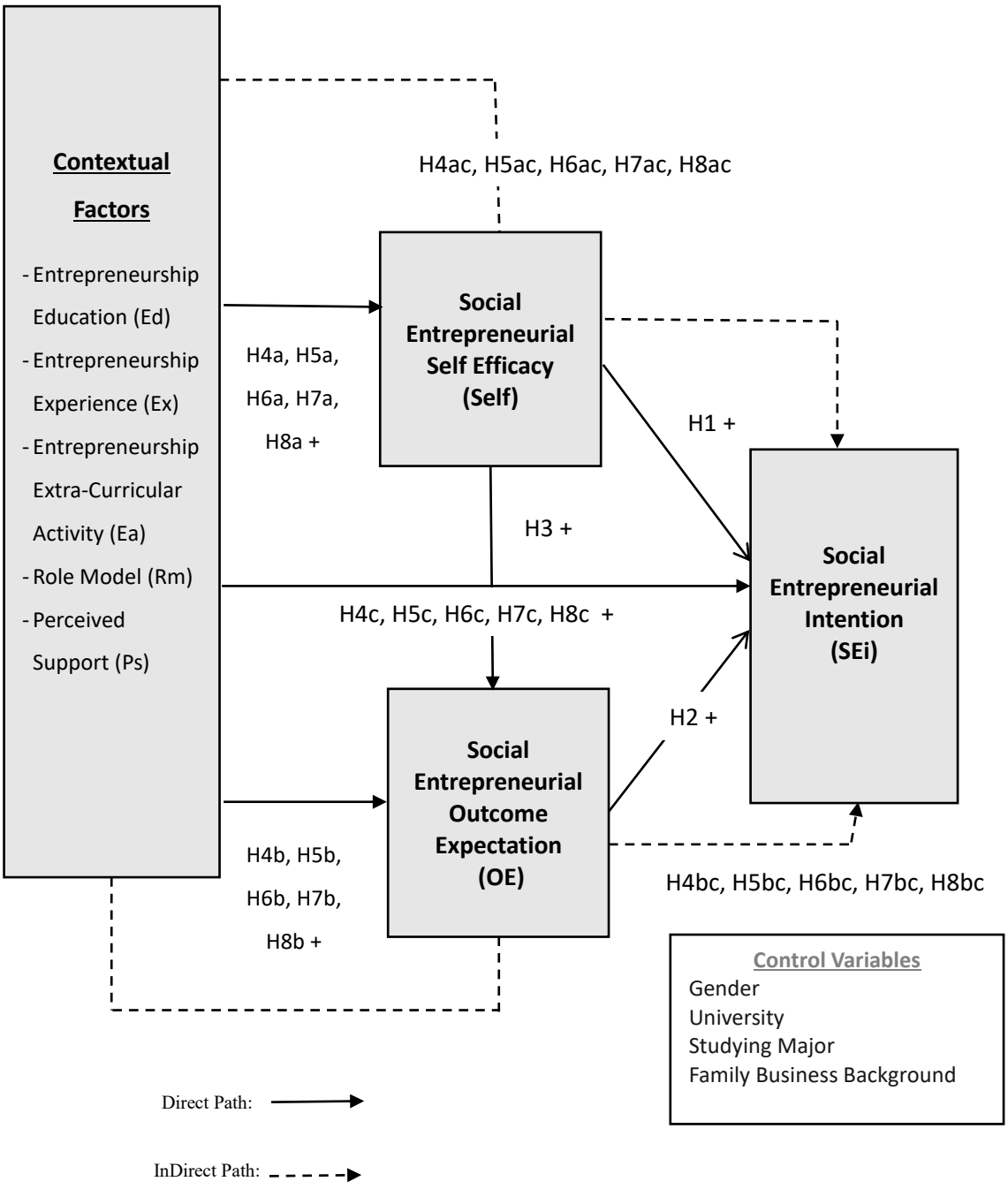


Figure 20. Thesis' Framework Model[38]

[38] *Author's own figure*

Chapter 4. QUESTIONNAIRE DEVELOPMENT AND PRETEST

This chapter covers all perspectives of a research method, which according to Bryman (2006) include processes, instruments, and techniques for developing the questionnaire. First, variable measurement is displayed (section 4.1). Second, questionnaire development (section 4.2) including a presentation of a pretest is provided. Finally, the final version of the questionnaire is presented (section 4.3).

4.1 Variable Measurement

The design of the questionnaire, which addresses the construction of questions and response options, is based on the research objectives (Tustin et al., 2005:98). Hence, in order to develop the objective-oriented questionnaire, measurements of all constructs in the framework model (independent, moderating, and dependent variables) must be identified. This procedure is primarily developed by using validated questions that were used in previous intention studies in both business entrepreneurship and social entrepreneurship. In addition, all studies covering the fundamental variables in this study such as Entrepreneurship Education, Entrepreneurship Experience, Entrepreneurship Extra-curricular Activity, Role Model, Perceived Support, Social Entrepreneurial Self-Efficacy, and Social Entrepreneurial Outcome Expectation are reviewed. The following sections (section 4.2.1–section 4.2.99) describe in more detail which instruments and corresponding scales are adopted from the literature.

4.1.1 Social Entrepreneurial Intention

Many premises are indicative of different aspects of intention. For instance, Armitage and Conner (2001) identify three distinct types of intention: self-prediction (“How likely it is…”), desire (“I want to…”), and behavioral intention (“I intend to…”). The last one appears to provide slightly better results in the prediction of behavior (Armitage & Conner, 2001, p. 483). In this sense, Chen et al. (1998) use a mix of self-prediction and pure-intention items, whereas Zhao et al. use ‘‘interest’’ measures (‘‘How interested are you in...’’?). However, the similarity between interest and intention might not be so apparent (Liñán & Chen, 2009, p.601). For this reason, Liñán and Chen (2009)

use a pure-intention measure for entrepreneurial intention. Per their suggestion, the measurement contains five items with high reliability (Cronbach's alpha = .943). Therefore, this study adapts this five-item scale of Liñán and Chen (2009) to measure Social Entrepreneurial Intention. A five-point Likert scale is used. It ranges from 1 = "totally disagree" to 5 = "totally agree". The questionnaire employs the following five statements (see table 11).

Variable	Source	Item
Social Entrepreneurial Intention (SEi)	Liñán& Chen (2009)	I am ready to do anything to be a social entrepreneur
		My professional goal is to become a social entrepreneur
		I will make every effort to start and run my own social enterprise
		I am determined to create a social enterprise in the future
		I have a strong intention to start a social enterprise someday

Table 11. Scale of Social Entrepreneurial Intention[39]

[39] *Author's own table (referencing Liñán & Chen, 2009)*

4.1.2 Social Entrepreneurial Self-Efficacy

The measurement of Social Entrepreneurial Self-Efficacy is adopted from Mc.Gee et al. (2009), who originally follow the premise of (Mueller & Goic, 2003) that self-efficacy can be examined through 4 phases of entrepreneurial activities: (1) searching, (2) planning, (3) marshaling, and (4) implementing. The scale is developed by undertaking the four-phase venture creation process model as a theoretical guide and is highly reliable, with a Cronbach's alpha >.8. The instrument concludes that 19 items are related to 19 entrepreneurial tasks and uses a 5-point Likert scale (1 = "strongly un-confident", 5 = "strongly confident"). The respondents were asked to indicate their confidence level in their ability to engage in each of these 19 entrepreneurial tasks as follows (see table 12).

Table 12. Scale of Entrepreneurial Self-Efficacy[40]

Variable	Source	Phase	Item
Social Entrepreneurial Self Efficacy (Self)	Mc.Gee et al. (2009)	**Searching**	Brainstorm (come up with) ideas for new products/services
			Identify the need for new products/services
			Design products/services that will satisfy customer needs and wants
		Planning	Estimate customer demand for new products/services
			Determine an adequate price for a new product/service
			Estimate the amount of start-up funds and working capital

			necessary to start a social business
			Design effective marketing/advertising campaigns for new products/services
		Marshaling	Convince others to identify with and believe in my vision and plans for a new social business
			Network, i.e., make contact with and exchange information with others effectively
			Clearly and concisely explain verbally and in writing my social business idea in everyday terms
		Implementing	Supervise employees
			Recruit and hire employees
			Delegate tasks and responsibilities to employees
			Effectively address day-by-day problems and crises
			Inspire, encourage, and motivate employees
			Train employees
			Organize and maintain the financial records of my social business
			Manage the financial assets of my social business
			Read and interpret financial statements

[40] *Author's own table (referencing Mc.Gee et al., 2009)*

4.1.3 Social Entrepreneurial Outcome Expectation

The measurement of Social Entrepreneurial Outcome Expectation was adapted from Liguori (2012) with high reliability, as the Cronbach alpha in this study is .79. The measure uses four items on a 5-point Likert scale, ranging from 1= ‘‘Not at all’’ to 5 = ‘‘Very much’’. The participants were asked, “To what extent do you expect to achieve the following outcomes by starting your own social venture” (see table 13):

Variable	Source	Item
Social Entrepreneurial Outcome Expectation	Liguori (2012)	Financial rewards (e.g., personal wealth and increased personal income)
		Independence/Autonomy (e.g., personal freedom and be your own boss)
		Personal rewards (e.g., public recognition, personal growth, and to prove I can do it)
		Family security (e.g., secure a future for my family members and build a business to pass on)
		Social impacts (e.g., address social problems, improve the quality of life for the whole society and contribute to the sustainable development of society)

Table 13. Scale of Social Entrepreneurial Outcome Expectation[41]

[41] *Author’s own table (referencing Liguori, 2012)*

4.1.4 Entrepreneurship Education

For the measurement of Entrepreneurship Education, the scale is adapted from Zhao et al. (2005), with a highly reliable Cronbach's alpha = .79. Respondents indicate how much they have learned in their study in the following areas (see table 14). It includes four items on a 5-point Likert scale, ranging from 1 = ‘‘Not at all’’ to 5 = ‘‘Very much’’.

Variable	Source	Item
Entrepreneurship Education	Zhao et al. (2005)	Opportunity recognition
		Opportunity evaluation
		Starting a business
		Corporate enterprise

Table 14. Scale of Entrepreneurship Education[42]

[42] *Author’s own table (referencing Zhao et al., 2005)*

4.1.5 Entrepreneurship Experience

For measuring Entrepreneurship Experience, the scale is also adopted from Zhao et al. (2005), with an acceptably reliable Cronbach's alpha = .60. Respondents disclose the level of their experiences in some entrepreneurial activities. It contains four items on a 5-point Likert scale, ranging from 1 = ‘‘Not at all’’ to 5 = ‘‘Very much’’ (see table 15).

Variable	Source	Item
Entrepreneurship Experience	Zhao et al. (2005)	New business venture start-up
		New market development
		New product development
		Social entrepreneurship

Table 15. Scale of Entrepreneurship Experience[43]

[43] *Author’s own table (referencing Zhao et al., 2005)*

4.1.6 Entrepreneurship Extra-curricular Activity

For measuring Entrepreneurship Extra-curricular Activity, this thesis uses five items from Nguyen (2016). The participants are asked to mention the frequency at which they participate in entrepreneurial activities (see table 16) in addition to their studying time. The scale also uses a 5-point Likert scale, ranging from 1 = ‘‘Not at all’’ to 5 = ‘‘Very much’’.

Variable	Source	Item
Entrepreneurship Extra-curricular Activity	Nguyen (2016)	Attend a conference(s) about entrepreneurship
		Participate in a competition(s) about entrepreneurship (e.g., idea, business plan, business model, and creating a new product/service)
		Be a member of entrepreneurship related-clubs
		Participate in a talk(s), a forum(s) or an interview(s) with entrepreneurs

Table 16. Scale of Entrepreneurship Extra-Curricular Activity [44]

[44] *Author’s own table (referencing Nguyen, 2016)*

4.1.7 Perceived Support

For measuring Perceived Support, the scale is adapted from Ernst (2011) and Malebana et al. (2014). According to Ernst (2011), there are two types of Perceived Support: support in finance and support in counseling and networking. These two supports are primarily from family, friends, and fellow students. In addition, Malebana et al. (2014) add support from other institutions such as government, banks, and incubators, which are important for start-ups. In summary, eight items indicating Perceived Support in both financing and counseling/networking are used (see table 17). The respondents state the level of support they expect to receive from all sources mentioned above when starting their social enterprises. All items use a 5-point Likert scale, ranging from 1 = "Totally disagree" to 5 = "Totally agree".

Variable	Source	Item	
Perceived Support	Ernst (2011) & Malebana et al., (2014)	I would be financially supported by…	My closest family
			My friends
			My fellow students
			Institutions (e.g., funds from government, venture capitalists, banks, and business angels)
		I would be actively supported with advice/ counseling or networking efforts by…	My closest family
			My friends
			My fellow students
			Institutions (e.g., funds from government, venture capitalists, banks, and business angels)

Table 17. Scale of Perceived Support [45]

[45] *Author's own table (referencing Ernst (2011) and Malebana et al. (2014))*

4.1.8 Role Model

For measuring Role Model, the scale from Malebana et al. (2014) is chosen and adapted to the specific case of social entrepreneurship. Therefore, four items that involve entrepreneurship in general and social entrepreneurship in particular are used. Participants are queried about their level of personally knowing an (social) entrepreneur(s) and a successful (social) entrepreneur (see table 18). All items are measured on a 5-point Likert scale that ranges from 1 = "not at all" to 5= "very well".

Variable	Source	Item
Role Model	Malebana et al. (2014)	I personally know other people who are entrepreneurs
		I personally know other people who are social entrepreneurs
		I personally know successful entrepreneurs
		I personally know successful social entrepreneurs

Table 18. Scale of Role Model[46]

[46] *Author's own table (referencing Malebana et al., 2014)*

4.1.9 Control Variables

The methods for measuring the four control variables – gender, university, studying major, and family business background – are explained below.

Gender

Gender is measured by a single question asking respondents to tick the 'Male' or 'Female' checkbox accordingly (Kolvereid & Isaksen, 2006). The answer 'Male' is coded as 0. The answer 'Female' is coded as 1.

University

Students were asked to write down the name of the university at which they are studying. Each value is one of the four options: National Economics University (NEU), University of Danang (UD), Duy Tan University (DTU), and University of Economics Ho Chi Minh city (UEH). In the coding process, NEU, UD, DTU, and UEH are coded as 0, 1, 2, and 3, respectively.

Studying Major

Studying major is divided into 3 groups: (1) Economics/Business Management, (2) Engineering/Technology, and (3) Others (e.g., Language, Education, Environment, and Agriculture). The students were requested to choose one of these three options. These major categories are coded with numbers. The first group 'Economics/Business Management' is coded as 0. The second group 'Engineering/Technology' is 1. The last one 'Others' is 2.

Family Business Background

Respondents were asked to answer whether their family members have run a business (Malebana et al., 2014). The answer is 'yes' or 'no'. If 'Yes', the coded value is 1. If 'No', the coded value is 0.

4.2 Questionnaire Development

4.2.1 Operational Process of the Questionnaire Development

The questionnaire is adapted and developed based on the literature (see section 4.2). However, it is translated from English into Vietnamese by using the back-translation method (Brislin, 1980). First, the author creates the first questionnaire version in Vietnamese. Thereafter, two other language experts in the faculty of Foreign Language at the National Economics University are hired to check the translated version. Little ambiguity was found, and all of the items are understandable and interpretable in the Vietnamese language. The meanings and concepts of these items are recognized as consistent between the translated versions in the language checking process.

Furthermore, a face-to-face meeting was organized in June 2016 between the researcher and ten last-year students from National Economics University with different backgrounds, such as business administration, information technology, marketing, and economics informatics. In that meeting, ten questionnaires in Vietnamese are prepared and given to the students. They were requested to answer the questionnaire independently. Then, each provides his/her comments on how to improve the understandability and clarity of questions and how to encourage people to answer the questionnaire more seriously.

Most people provide positive feedback about understandability and clarity. The questionnaire is mostly understandable. However, there are questions concerning the writing style. How some questions are expressed should be changed to be easier to understand and to match students' mindset. For instance, the questions '*I personally know other people who are entrepreneurs*' and '*I am confident in the ability to clearly and concisely explain verbally and in writing my social business idea in everyday terms*' are considered vague. All of these students felt confused and did not understand them. Additional feedback related to the first page, which explains the topic of social entrepreneurship and the differences between a social enterprise and a business enterprise. The students suggested providing examples of these two types of businesses that will help to clarify to the respondents what a social enterprise is and what a business enterprise is. The quality of responses would thus increase. Finally, the students suggest

using a larger font size because the Times New Roman font size 10 is not easy to read. The font size should be 12.

Concerning respondent encouragement, the students note that a questionnaire with 58 questions is long. They could not focus on the entire questionnaire because completing it required approximately 15 minutes. Hence, they suggest shortening it as much as possible. Furthermore, in order to motivate participants to engage seriously, they advocate giving a gift to every respondent.

In addition, the scales used in the research are adapted from the literature, and some questions are adjusted for the context of social entrepreneurship. For instance, one of the original questions from Liñán and Chen (2009) measuring Entrepreneurial Intention in the context of business entrepreneurship us "*I am ready to do everything to be an entrepreneur*". This statement is edited to read "*I am ready to do everything to be a social entrepreneur*". Because of this adaptation, to ensure that all of the constructs are reliable for the official research, a pretest with statistical analyses of items and scale validity should be implemented.

In summary, after the meeting and the back-translation process, the first version of the questionnaire is revised considering all suggestions about the content and format. With respect to the vagueness of specific questions, a small discussion between the author, the two other experts in the field of entrepreneurship from National Economics University, and these ten students was organized in July 2016. This meeting seeks the best means of disseminating the content of the questionnaire. The first ten gifts are given to these students for their highly helpful contribution in the first process of questionnaire development. Furthermore, it is decided to do a pretest (see section 4.2.2) before conducting the final survey widely.

4.2.2 Pretest

Pretests are recommended when testing new scales or using existing scales in a specific and different context (Churchill Jr, 1979). Pretests also offer the option to test various types of scales and improve the final measurement applied. Especially when the original language of questions is not the native language for participants, the pretest is even more necessary. Therefore, this thesis runs a pretest before administering the questionnaire in the final research. Sections 4.2.2.1 to 4.2.2.5 provide more details.

4.2.2.1 Data Collection

The pre-survey was conducted in the first week of September 2016 on the campus of National Economics University (NEU), Hanoi, Vietnam. Based on contacts of the author herself, she asked colleagues at NEU to learn the schedule of all the classes. Thereafter, the authors requested permission to go to the classes during their time-break in order to reach students. With support and encouragement from the lecturers of all surveyed classes, 100% of the students agreed to complete the questionnaire.

Four classes with last-year students in different majors such as business administration, marketing, economic informatics, and information technology were involved in the survey. The pretest was taken by 136 participants (see figure 21). Specifically, there were 32 (24%) students from technology information, 33 people from economic informatics (24%), 29 students from marketing (21%), and 42 students from business administration (31%).

The pre-survey went smoothly, with high engagement from the students. The students answered the questionnaire very seriously. The average time for finishing the questionnaire completely was also approximately 15 minutes. As social entrepreneurship was very new to the students, the author explained the subject very clearly for every class at the beginning of the survey in order to ensure that the participants understood the topic. Additionally, the author directly controlled the survey and supported students if they had any questions about the questionnaire. In addition, every participant answering the survey received a mobile sim-card valued at 30 000 VND (approximately 1.2 euro) as a thank-you gift for their contribution.

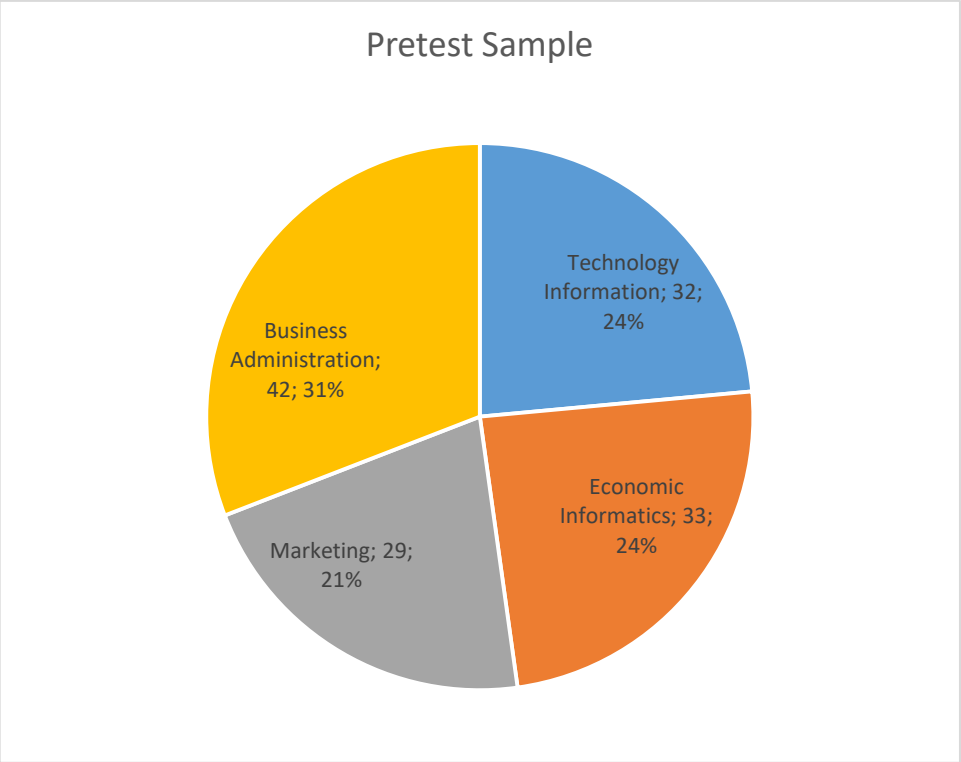


Figure 21. Pretest Sample[47]

[47] *Authors' own figure*

4.2.2.2 Data Reliability Checking

First, a process of data screening was run with Microsoft Excel. There were no missing answers; all responses were fully complete. Remarkably, the standard deviation function STDEV.P() in Excel was used to calculate the standard deviation values based on the values of all of the answers of each respondent. The results ranged from 1,409 to 2,380, values much greater than 0. This result implies large differences between the answered values of the students and that every student answered the questionnaire very carefully. They did not only answer randomly without reading and understanding the questions; they really engaged with the survey. Therefore, a dataset of 136 records was highly appropriate to use for further checking.

Second, Statistical Package for the Social Sciences (SPSS) software version 24 was used to check construct reliability. Reliability relates to the ability of an instrument to measure consistently (Tavakol M et al., 2008). Remarkably, the reliability of an instrument connects closely with its validity. An instrument is not valid if it is not reliable. However, the reliability of an instrument does not depend on its validity (Nunnally J, 1994). Therefore, it is possible to objectively measure the reliability of an instrument to ensure that the measurements used in this thesis are reliable and acceptable before performing any further analysis.

Here, the reliability of all measurements is tested for internal consistency using the Cronbach's alpha (Cronbach, 1951) measure. Cronbach’s alpha illustrates to some extent that all of the items in a test measure the same concept or the same construct; hence, it connects to the interrelatedness of the items within the test (Mohsen Tavakol, Reg Dennick, 2011, p.53). Cronbach’s alpha is an index of reliability for multiple item measures (McKnight et al., 2007, p.22). Moreover, this index is the most recommended measure for calculating the reliability of multi-item scales (Peter, 1979, p.7). The value of Cronbach’s alpha is between zero (0) and one (1). Values close to 1 express a high degree of reliability (Andrew, Pedersen & McEvoy, 2011, p.202). In general, a high value is desirable to ensure the highest possible quality of the internal consistency of a factor's indicators. However, a cut-off value for this reliability measure is controversial in the literature, as shown in table 19.

Author	Situation	Recommended Level
Nunnally (1967)	Preliminary research	5-6
	Basic research	8
	Applied research	9-9.5
Nunnally (1978)	Preliminary research	.7
	Basic research	.8
	Applied research	.9-.95
Kaplan & Saccuzzo (1982)	Basic research	.7-.8
	Applied research	.95
Murphy & Davidshofer (2005)	Unacceptable level	Below .6
	Low level	.7
	Moderate to high level	.8-.9
	High level	.9

Table 19. Reliable Cut-off Values[48]

[48] *Author's own table (referencing Zerwas, 2014)*

According to table 19, researchers have different points of view on the recommended value for Cronbach's alpha. However, according to Field (2013, p.709), the often-used cut-off value in books and journal articles is from .7 to .8. Hence, this value is considered relevant for this thesis.

In the pretest, the result (see table 20) shows that Cronbach's alpha scores are .810 for Entrepreneurship Education, .892 for the Entrepreneurship Experience, .917 for Entrepreneurship Extra-curriculum Activity, .879 for Perceived Support, .874 for Role Model, .913 for Social Entrepreneurial Self-Efficacy, .806 for Social Entrepreneurial Outcome Expectation, and .919 for Social Entrepreneurship Intention. All of these values are greater than .80, so the scales for all variables are acceptable and reliable (Nunnally, 1978).

Construct	Cronbach's alpha
Former Entrepreneurship Education	.810
Entrepreneurial Experience	.892
Extra-curricular Activity	.917
Perceived Support	.879
Role Model	.874
Entrepreneurial Self Efficacy	.913
Entrepreneurial Outcome Expectation	.806
Social Entrepreneurial Intention	.919

Table 20. Cronbach's alpha of the Constructs in the Pretest [49]

[49] *Author's own table*

However, consistent with comments from all previous participants, the questionnaire was so long that they could not focus on answering the questions seriously after 10 mins. The participants proposed reducing the length of the questionnaire as much as possible in order to obtain highly qualified results. In other words, the removal of some items should be considered. Nevertheless, this consideration must be decided based on statistical analysis. To do so, the pretest employs the Exploratory Factor Analysis (EFA) procedure, which is described in more detail in the next section.

4.2.2.3 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is usually the first step in establishing scales or a new metric by exploring the dataset and testing predictions (Samuels, 2016). It is commonly characterized as "one of the most powerful methods for reducing variable complexity to greater simplicity" (Kerlinger, 1979, p.180, cited in Kronenfeld, 2009). EFA discovers the number of factors influencing variables and analyzes what factors "go together" (DeCoster, 1998). It is also known as reducing dimensionality (Bartholomew, Knott, & Moustaki, 2011). It works on the notion that measurable and observable variables can be reduced to fewer latent variables. These latent factors share a common variance and are unobservable. They are not directly measured but are essentially hypothetical constructs that are used to represent variables (Cattell, 1973, cited in Cattell, 2016). A basic hypothesis of EFA is to determine the smallest number of common factors that can explain the correlations from the whole dataset of all 'latent' factors (Widaman & McDonald, 1987).

There are numerous statistical theories that can be applied to compute factor extraction. However, the most common method is called 'principal components analysis' (Russell, 2002). This method accounts for common, specific, and random error variances (Ford et al., 1986). It assumes that the scores on measured variables have perfect reliability (Thompson, 2004, p.36). It will extract maximum variance from the dataset with each component and then reduce a large number of factors to a smaller number of components (Tabachnick & Fidell, 2000). Hence, this factor extraction method is used in this pretest in order to determine whether some items can be diminished.

Two statistical measures are also generated by SPSS to help assess the factorability of the data: Bartlett's test of sphericity (Bartlett, 1954) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1970). Factor analysis is only appropriate if Bartlett's test of sphericity is significant (i.e., p-value <.05). Moreover, the KMO index ranges from zero to one, with 0.6 suggested as the minimum value for good factor analysis (Tabachnick & Fidell, 2000).

However, there are requirements for performing EFA. First, the most common request is that each variable should have at least 3 to 10 observations (Comrey & Lee, 1992). Second, the ratio between respondents and variables should be at least 10:1 (Child, 2006).

In the pretest, the scales of all variables have more than four explaining items. The sample size of 136 is more than ten times the number of eight variables (i.e., Entrepreneurship Education, Entrepreneurship Experience, Entrepreneurial Extra-curricular Activity, Role Model, Perceived Support, Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation, and Social Entrepreneurial Intention). Therefore, EFA can be performed for this pretest, and it is processed by the SPSS software version 24. The following are the EFA results.

4.2.2.3.1 Kaiser-Meyer-Olkin Test

The Kaiser-Meyer-Olkin (KMO) test is a measure of how suited the data are for factor analysis. The test measures sampling adequacy for each variable in the model and for the complete model. The statistic is a measure of the proportion of variance among variables that might have common variance. The lower the proportion is, the more suited the data are for factor analysis. KMO returns values between 0 and 1. A KMO value close to zero means that there are high partial correlations to the sum of correlations. In other words, there are widespread correlations, which are a significant problem for factor analysis. In contrast, a KMO value close to 1 indicates that patterns of correlations are relatively compact and that factor analysis should yield distinct and reliable factors. According to Kaiser & Rice (2016), a *rule of thumb* for interpreting the statistic illustrates that the sampling is only adequate without any remedial action when KMO values are greater than 0.8. The reference for adjusting the KMO value (see table 21) follows the suggestion of Hutcheson & Sofroniou (1999, p.224-225).

Furthermore, the Bartlett test of sphericity tests the null hypothesis of whether the original correlation matrix (R-matrix) is an identity matrix. Factor analysis only works when the R-matrix is not an identity matrix. In other words, this test must be significant (i.e., have a significant value less than 0.5) (Dziuban & Shirkey, 1974).

KMO value	Sampling Adequacy
>=0.9 and <=1	Marvelous
>=0.8 and <0.9	Meritorious
>=0.7 and <0.8	Middling
>=0.6 and <0.7	Mediocre
>=0.5 and <0.6	Miserable
<0.5	Unacceptable

Table 21. KMO threshold and Sampling Adequacy Interpretation[50]

[50] *Authors'own table (referencing Hutcheson & Sofroniou, 1999)*

KMO and Bartlett's Test of the Pretest		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.886
Bartlett's Test of Sphericity	Approx. Chi-Square	5468.791
	df	1378
	Sig.	.000

Table 22. KMO and Bartlett's Test of the Pretest[51]

Table 22 is a report from the EFA process of this pretest. In more detail, the KMO value here is .886. The adequacy of the sample is excellent as the KMO value is greater than 0.8. The approximate chi-square is 5468.791 with 1378 degrees of freedom. The Bartlett test of Sphericity is significant, with a P-value less than 0.001. Therefore, the sample is highly acceptable for further analysis, and the factor analysis can work properly (Hutcheson & Sofroniou, 1999; Dziuban & Shirkey, 1974).

[51] *Author's own table*

4.2.2.3.2 Communalities

Communality values depict the proportion of the variance in a variable, which is predictable from the factors underlying it. In other words, the communality of an item is the square of a standardized indicator's outer loading. It is also described as the variance extracted from the item. It represents how much of the variation in a construct is explained by the item. According to the established *rule of thumb,* a latent variable should explain a substantial part of each indicator's variance, usually at least 50% (Hair et al., 2014, p.103). A very low communality (i.e., between 0 and 0.5) implies an 'outlier variable,' as the variance might struggle to load significantly on any factor. Therefore, the items with low communality values should be removed (Gaskin, 2016).

In the pretest, the communality table (i.e., table 23) illustrates that there is only one item about "*estimate the customers' demand for new products/services*" (i.e., SelfEC) with a communality value under .5 (i.e., .452). Following the suggestion from (Gaskin, 2016), this indicator will be excluded from the questionnaire as it can lead to problems with significant loading factors. The remaining 48 items with a communality extraction value of greater than 0.5 are maintained for the following study, as they are excellent (Hair et al., 2014, p.103).

Table 23. Communality Value of the Pretest[52]

Communality Value		
	Initial	Extraction
SelfQ6S	1.000	.669
SelfQ7S	1.000	.623
SelfEC	1.000	.452
SelfQ8S	1.000	.701
SelfQ9P	1.000	.680
SelfQ10P	1.000	.688

SelfQ11P	1.000	.646
SelfQ12M	1.000	.621
Selfbs01	1.000	.782
Selfbs02	1.000	.767
SelfQ13IP	1.000	.788
SelfQ14IP	1.000	.759
SelfQ15IP	1.000	.692
SelfQ16IP	1.000	.678
SelfQ17IP	1.000	.704
SelfQ18IP	1.000	.653
SelfQ19IF	1.000	.662
SelfQ20IF	1.000	.689
SelfQ21IF	1.000	.659
OExQ22	1.000	.661
OExQ23	1.000	.727
OExQ24	1.000	.756
OExQ25	1.000	.696
OExQ26SE	1.000	.625
EdQ50	1.000	.751
EdQ51	1.000	.703
EdQ52	1.000	.685

EdQ53	1.000	.720
ExQ54	1.000	.636
ExQ55	1.000	.794
ExQ56	1.000	.778
ExQ57	1.000	.697
EaQ58	1.000	.713
EaQ59	1.000	.695
EaQ60	1.000	.762
EaQ61	1.000	.676
PsQ62F	1.000	.679
PsQ63F	1.000	.723
PsQ64F	1.000	.767
PsQ65F	1.000	.672
PsQ66C	1.000	.708
PsQ67C	1.000	.725
PsQ68C	1.000	.712
PsQ69C	1.000	.720
RmQ70	1.000	.775
RmQ71SE	1.000	.808
RmQ72	1.000	.798
RmQ73SE	1.000	.786

SEiQ74	1.000	.805
SEiQ75	1.000	.839
SEiQ76	1.000	.869
SEiQ77	1.000	.811
SEiQ78	1.000	.856
Extraction Method: Principal Component Analysis.		

[52] *Author's own table*

4.2.2.3.3 Pattern Matrix

The pattern matrix presents the loading value of each item into one factor. This loading value is also known as the regression coefficient. The loading value of each item into a factor decides the strength of the relationship between the item and the latent factor.

When examining factor loadings, the strength of the inter-correlations among the items must be addressed. This strength can cause problems with cross loadings or low coefficients (Tabachnick & Fidell, 2000). Cross loadings occur when one item loads into more than two factors with loading values greater than .32 (Costello & Osborne, 2005). The low coefficients exist when loading values are less than .5 (James Gaskin, 2016). The items related to cross loadings or low coeeficients should be removed (Tabachnick & Fidell, 2000). Ideally, only the items that load on a single factor with loading values greater than .5 should be retained.

In the pretest, the item "*convince others to identify with and believe in the vision and plans for a new social business*" loading weakly to the factor 2 with a value of .436 (less than 0.5) (see table 24) is deleted (James Gaskin, 2016; Tabachnick & Fidell, 2000). The item referring to "*delegate tasks and responsibility to employees*" is loaded strongly (greater than .5) to both factors 6 and 9 (i.e., factor-loading values are 0.52 and 0.543 for factors 6 and 9, respectively). Hence, it is also removed because it indicates cross loading between these two factors (Costello & Osborne, 2005; Tabachnick & Fidell, 2000).

Here, the EFA process is repeated 5 times until neither cross loadings between factors nor low coefficients exist. Consequently, seven items from the construct Social Entrepreneurial Self-Efficacy are expelled. They are '*Identify the need for new products/services*'; '*Estimate the amount of start-up funds and working capital necessary to start a social business*'; '*Design effective marketing/advertising campaigns for new products/services*'; '*Convince others to identify with and believe in my vision and plans for a new social business*'; '*Network, i.e., make contact with and exchange information with others effectively*'; '*Clearly and concisely explain verbally and in writing my social business idea in everyday terms*'; '*Supervise employees*'; and '*Delegate tasks and responsibilities to employees*'.

Pattern Matrix[a]

	Component										
	1	2	3	4	5	6	7	8	9	10	11
Brainstorm (come up with) ideas for new products/services		0,645									
Design products/services that will satisfy customer as well as social needs		0,715									
Estimate customer's demand for new products/ services				-0,424			0,463				0,404
Determine an adequate price for a new product/service		0,767									
Estimate the amount of start-up funds and working capital neccessary to start a		0,893									
Design effective marketing/ advertising campaigns for new products/services		0,686									
Get others to identify with and believe in my vision and plans for a new social		0,436									
Network-i.e., make contact with and exchange information with others											0,512
Clearly and concisely explain verbally and in writing my social business idea in											0,303
Supervise employees									0,767		
Recruit and hire employees									0,688		
Delegate tasks and responsibilities to employees						0,520			0,543		
Deal effectively with day-by-day problems and crises						0,824				-0,336	
Inspire, encourage, and motivate employees						0,901					
Train employees						0,717					
Organize and maintain the financial records of my social business						0,519					
Manage the financial assets of my social business						0,529					
Read and interpret financial statements						0,658					
Financial rewards (personal wealth, increase personal income, etc.)			0,740								
Independence/Autonomy (personal freedom, by your own boss, etc.)			0,908								
Personal rewards (public recognition, personal growth, to prove I can do it,			0,918								
Family security (to secure future for my members, to build a business to pass on,			0,774								
Social impacts (to address social problems, improve quality of life the			0,643								

Table 24. Matrix Pattern of the Pretest[53]

[53] *Author's own table*

4.2.2.4 Construct Reliability after EFA

Because of the above removal, another checking of construct reliability for the construct 'Social Entrepreneurial Self-Efficacy' is made. Again, the Cronbach's alpha is applied to make a judgment. With the new scale (table 25), Social Entrepreneurial Self-Efficacy is measured by 12 items with a Cronbach's alpha of 0.899 (greater than the cut-off value of .7). Therefore, this scale is reliable.

For the other constructs, the scales are all retained for the final version as all Cronbach's alpha values are checked in section 4.2.2.2, and they are all greater than .8 (Nunually, 1970). In more detail, four items – *opportunity recognition, opportunity evaluation, starting a business, and corporate enterprise* – measure Entrepreneurship Education. Four items – *new business venture start-up, new market development, new product development, and social entrepreneurship* – evaluate Entrepreneurship Experience. Four indicators about *entrepreneurship – conferences, entrepreneurship competitions, talks or interviews with entrepreneurs, and entrepreneurship clubs* – measure Entrepreneurship Extra-curricular Activity. Four items related to *knowing entrepreneurs* determine Role Model. Eight indicators about *financing, networking, and consulting assistance* evaluate Perceived Support. Five items – *finance rewards, autonomy, personal awards, family security, and social impacts* – determine Social Entrepreneurial Outcome Expectation. Finally, five questions measure Social Entrepreneurial Intention.

Cronbach's Alpha	N of Items
.899	12

Table 25. Cronbach's Alpha of the variable 'Social Entrepreneurial Self-Efficacy'[54]

[54] *Author's own table*

4.3 Final Version of the Questionnaire

Based on all previous processes, the questionnaire is revised in order to meet the requirement of clarity and reliability together with a reduction of items if possible. According to EFA results, the seven items addressing Social Entrepreneurial Self-Efficacy are excluded in the final questionnaire. Therefore, the construct 'Social Entrepreneurial Self-Efficacy' is measured by 12 items (instead of the initial 19) in the final questionnaire. The 34 items measuring other factors (i.e., 4 items for Entrepreneurship Education, 4 items for Entrepreneurship Experience, 4 items for Entrepreneurship Extra-curricular Activity, 4 items for Role Model, 8 items for Perceived Support, 5 items for Social Entrepreneurial Outcome Expectation, and 5 items for Social Entrepreneurial Intention) are retained. Therefore, these 46 (i.e., 34+12) questions are ultimately used in the final survey to test all of the hypotheses proposed in the previous section (see section 3.4.1). The final version of the questionnaire is designed in five blocks:

The **first block** contains five questions about personal data from respondents, such as gender, name of university, studying major, study year, and business background of the family.

The **second block** includes twelve questions for measuring Social Entrepreneurial Self-Efficacy. Evaluation of the items was performed using a five-point Likert scale, ranging from 1 = "strongly un-confident" to 5 = "strongly confident".

The **third block** includes five questions for measuring Social Entrepreneurial Outcome Expectation. Evaluation of the items was performed using a five-point Likert scale, ranging from 1 = "totally disagree" to 5 = "totally agree".

The **fourth block** is about education, experience, extracurricular activity, perceived Support, and role model. It includes four items for measuring Entrepreneurship Education, four items for measuring Entrepreneurship Experience, four items for measuring Entrepreneurship Extra-curricular Activity, eight items for measuring Perceived Support and four items for measuring Role Model. Evaluation of the items on Entreprenuership Education and Entrepreneurship Experience was performed using a five-point Likert scale, ranging from 1 = "not at all" to 5 = "very much". The five-point Likert scale for extracurricular activity measurement ranges from 1= "never" to 5 = "very

often". The five-point Likert scale for Perceived Support ranges from 1 = "totally disagree" to 5 = "totally agree". Finally, the scale for measuring Role Model is a five-point Likert type, ranging from 1 = "not at all" to 5 = "very well".

The **fifth block** contains five questions for measuring Social Entrepreneurial Intention. A five-point Likert scale is also used. It ranges from 1 = "totally disagree" to 5 = "totally agree".

Moreover, notes are added to the first pages. First, a short text thanks the students for their participation, explains the background of the research and the length of the questionnaire, and provides assurance about the anonymous use of the data. Second, a brief introduction to what is a social enterprise, what is a difference between social enterprises and business firms, and a typical example of a social enterprise is provided. The objective of this part is to ensure that the students understand the overview of the topic before taking part seriously in the survey. Furthermore, estimated time to answer the questionnaire with a serious attitude and high engagement is approximately 10 minutes.

The structure of questionnaire is shown in figure 22.

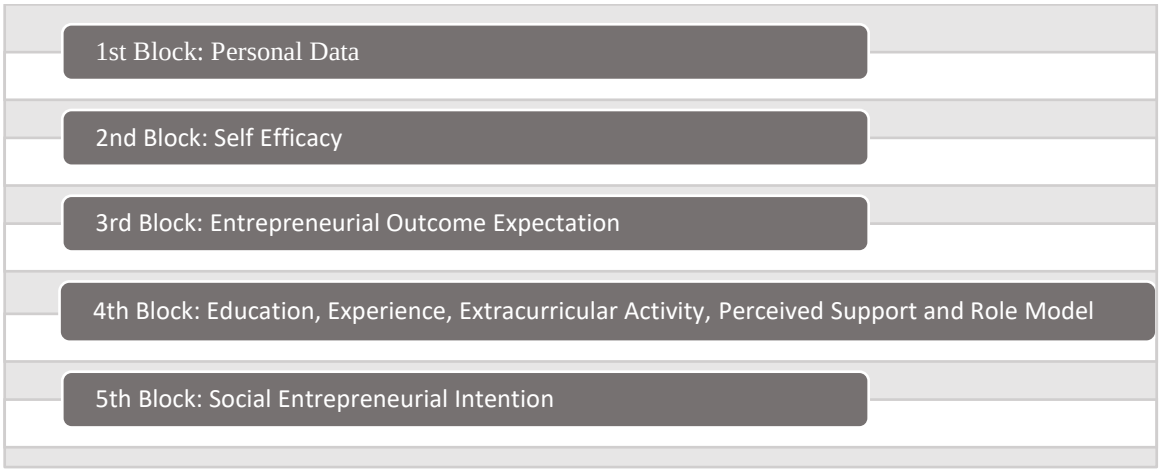


Figure 22. Questionnaire Structure[55]

[55] *Author's own figure*

Chapter 5. EMPIRICAL ANALYSIS

This chapter addresses the final empirical study for this thesis. It provides detailed insights into the data collection, data analysis and sources of findings. Section 5.1 presents sample design and data collection. Section 5.2 presents data screening. Section 5.3 describes the study sample. Section 5.4 displays the descriptive statistic of all factors in the model. Section 5.5 shows the factor analysis. Finally, section 5.6 discusses and summarizes hypothesis-testing results.

5.1 Sample Design and Data Collection

Numerous works have successfully applied last-year student samples when studying entrepreneurial intentions because those people are facing career decisions after their graduation. In this case, their life's changes occur at a time when entrepreneurship mostly occurs (Shapero & Sokol, 1982). Representative works employing this perspective are Autio et al. (2001), Franke & Lüthje (2003), Goethner et al. (2009), Guerrero et al. (2008), Krueger et al. (2000), Ruhle et al. (2010), and Sagiri & Appolloni (2009). Notably, studies in social entrepreneurship, such as those by Nga and Shamuganathan (2010) and Ernst (2011), offer an additional overview of studies with student samples. Based on these facts, last-year students are also chosen as the population or objects of this thesis. They can be of any major and any age because everyone can be a potential social entrepreneur.

Moreover, the target of this thesis is to measure the intention to be a social entrepreneur of students from all regions in Vietnam (i.e., the North, the Middle, and the South of Vietnam). Due to cost and time constraints, the sample does not include all last-year students from all universities in Vietnam. Instead, four universities in the three regions are selected. In the North, the National Economics University (NEU) in Hanoi, which is one of the top qualified universities in Vietnam in economics and management, is chosen. In central Vietnam, two universities are objectives: the University of Da Nang (UD) and Duy Tan University (DTU). In the South, the University of Economics Ho Chi Minh city (UEH) is examined. All of these universities are the most prestigious ones in their regions; each is also representative of its region. They have supported and been involved in entrepreneurship strongly and actively in Vietnam since they established a

center that specialized in fostering entrepreneurship nationally and in supporting its students' entrepreneurial activities.

A survey was conducted from 15 June 2017 to 28 July 2017 in the four universities (i.e., NEU, UD, DTU, & UEH). The face-to-face approach was used to collect the data. The researcher directly conducted the survey on the four campuses. However, at that time, the last-year students had fewer lessons at their universities because they had to do internships in companies or organizations. This fact required the survey to address many challenges to reach the subject people. Therefore, based on the authors' own contact network, a detailed schedule (table 26) was planned with help from lecturers at each university. The survey was implemented in every class during their break time and under the direct control of the researcher.

Before starting surveying, the lecturer of each class was asked to support and encourage their students to answer the questionnaire honestly and thoughtfully. Additionally, the author herself provided a detailed explanation about what the questionnaire is all about, what is a social entrepreneur, what is a social enterprise, and what is different between a social enterprise and a business company and answered every question raised by students. Again, similarly to the first approach, to pursue students to do the survey with high motivation, three awards were given to each class. In each category of participation, every student received a unique code. At the end of the survey, the author randomly selected three lucky codes. The first number called received a third-place award that was a Big-C coupon with a value of 200 000 VND (approximately 8 euro). The second-place award was a Big-C coupon with a value of 300 000 VND (approximately 12 euro). The first-place award received a Big-C coupon with a value of 500 000 VND (approximately 20 euro).

Date	City	Name of University	Class (Major)	Number of students
15th of June (3 pm)	**Hanoi**	National Economics University	Environment	37
20th of June (11 am)			Business Administration	44
22th of June (9 am)			Agronomy	33
27th of June (4pm)			Labor Market	31
1st of July (2 pm)			Human Resource Administration	39
5th of July (10 am)			Economics Informatics	45
7th of July (1.30 pm)			Tourism	19
11th of July (10.30 am)	**Da Nang**	University of Da Nang	Economic Development	31
13th of July (3 pm)			Tourism and Travel Management	47
14th of July (8.30 am)			Business Administration	21
16th of July (8.30 am)		Duy Tan	Business Administration	35
17th of July (9.30 am)			Information Technology	45
18th of July (10am)			Electrical Engineering	36
21th of July (10 am)	**Ho Chi Minh**	University of Economics Ho Chi Minh city	Marketing	39
24th of July (2pm)			Finance and Banking	37
26th of July (4 pm)			Information System	44
27th of July (2 pm)			International Business	35

Table 26. Survey Schedule[56]

[56] *Author's own table*

As illustrated in the timetable of the face-to-face survey (table 26), the first three weeks (from 15 June to 7 July) of the survey were conducted at the campus of National Economics University (NEU). Seven classes participated. One class with 37 students was in the Environment major. The second class had 47 students with a Business Administration major. The third one contained 33 students of Agronomy. The fourth included 39 students in the Human Resource Administration major. The fifth one was in Economic Informatics with 45 students. The six one had 19 students studying the Tourism major. The last was a Labor Market class with 28 students. With 100% agreeing, 248 students of NEU took part in the survey.

During the next 8 days (from 11 July to 28 July), the survey deployed in Da Nang city. The three classes with the major of Economic Development (31 students), the major of Tourism and Travel Management (47 students), and the major of Business Administration (21) were from the University of Da Nang. Three classes with the major of Business Administration (35 students), the major of Information Technology (45 students), and the major of Electrical Engineering (36 students) were from Duy Tan University. Similar to Hanoi, 100% of the students from these two universities agreed to answer the questionnaire. Hence, 215 respondents were from Da Nang city.

For the last seven days (from 21 July to 27 July), Ho Chi Minh was a destination for the survey. Four classes from the University of Economics Ho Chi Minh city were reached. There was one class in the major of marketing (39 students), one class in the major of information systems (44 students), one class in the major of international business (35 students), and the last one was in the major of finance and banking (37 students). All of these 155 students answered the questionnaire.

In summary, the data came from 248 respondents from the National Economics University in Hanoi, 215 records from University of Da Nang and Duy Tan University in Da Nang, and 155 answers from University of Economics Ho Chi Minh city. Overall, the sample size of 618 respondents was applied for this thesis (see table 27).

University Name	Number of Participants
National Economics University	248
University of Danang	99
Duy Tan University	116
University of Economics Ho Chi Minh city	155
Total	**618**

Table 27. Data Collection Result[57]

[57] *Author's own table*

5.2 Data Screening

Data screening[58] (also known as "data screaming") is the process of inspecting the data and correcting them before deploying further statistical analyses. To ensure the data are reliable, useable, and valid for testing causal theory, the data must be screened. The screening can include checking raw data, identifying outliers and addressing missing data.

The entire process of inserting data from the questionnaire papers into the dataset (.xlsx, Excel file) was performed carefully to minimize raw or missing data. However, at the end of this operation, there were six records lacking any data for the items measuring entrepreneurship education or entrepreneurial extra-curricular activity. Therefore, these records were deleted from the database.

Second, outlier checking was run because outliers can influence the results, pulling the mean away from the median. First, based on the value range for every variable (Entrepreneurship Education, Entrepreneurship Experience, Entrepreneurship Extra-curricular Activity, Role Model, Perceived Support, Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation and Social Entrepreneurial Intention), no outliers were found because all of the values for every item measuring those constructs were within the required ranges. For example, in terms of Social Entrepreneurial Intention, as a 5-point Likert scale was used for this variable; values for every item measuring this construct are from 1 to 5. Another type of outlier is an unengaged respondent. Occasionally, respondents enter the same rating for every single survey item. In these cases, the participants obviously show no engagement, and their responses will throw off the results of the study. Therefore, to avoid this problem, the standard Deviation (stdev.P ()) technique was used. The result illustrates that eight people answered the same value for every single question (stdev =0) and four others answered almost the same (stdev = 0.117, and stdev=0.2). These twelve respondents were not engaged in the study. Hence, these twelve records were deleted.

In conclusion, eighteen responses were removed from the database because of missing data or lack of engagement. Therefore, the final dataset with 600 records has been used for further analysis in this thesis (see table 28).

Category	Amount
Total Initial Sample Size	618
Missing Data	6
No Engagement Answer	12
Final Sample Size	600

Table 28. Final Sample Size after Screening[59]

[58] http://www.businessdictionary.com/definition/data-screening.html,

http://statwiki.kolobkreations.com/index.php?title=Data_screening

[59] *Authors' own table*

5.3 Data Description

Overall, the empirical study about Social Entrepreneurial Intention contains a total sample of 600 responses coming from four different universities in different regions (National Economics University, University of Danang, Duy Tan University and University of Economics Ho Chi Minh city). All of the students (100%) are last-year students who will graduate in June 2018. All 600 corrected (i.e., after the data screening process) responses are collected throughout Vietnam. In Hanoi, there are 241 respondents from the National Economics University, which accounts for 40.2% of the total sample. In Da Nang, 99 respondents (16.5%) are from the University of Da Nang, 112 respondents (18.6%) are from Duy Tan University, which together account for 35.1% in Danang city. The last city in the South is Ho Chi Minh City, in which there are 148 participants from the University of Economics, accounting for 24.7% (see table 29).

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	National Economics University	241	40.2	40.2	40.2
	University of Danang	99	16.5	16.5	56.7
	Duy Tan University	112	18.6	18.6	75.3
	University of Economics Ho Chi Minh city	148	24.7	24.7	100.0
	Total	600	100.0	100.0	

Table 29. Sample Frequency by University[60]

[60] *Authors' own table*

Specifically, in the sample, 52.5% (315 students) are male, and the remaining 47.5% (285 students) are female (see figure 23). Most are studying Economics/Business management (49.2%) and Engineering/Technology (28.3%). The remainder, 22.5%, study other majors such as agriculture, environment, and tourism (see figure 24). In addition, approximately two-thirds of the sample (62.2%) answer that their family members do not run any businesses; only one-third (37.8%) of the sample have a family business (see figure 25).

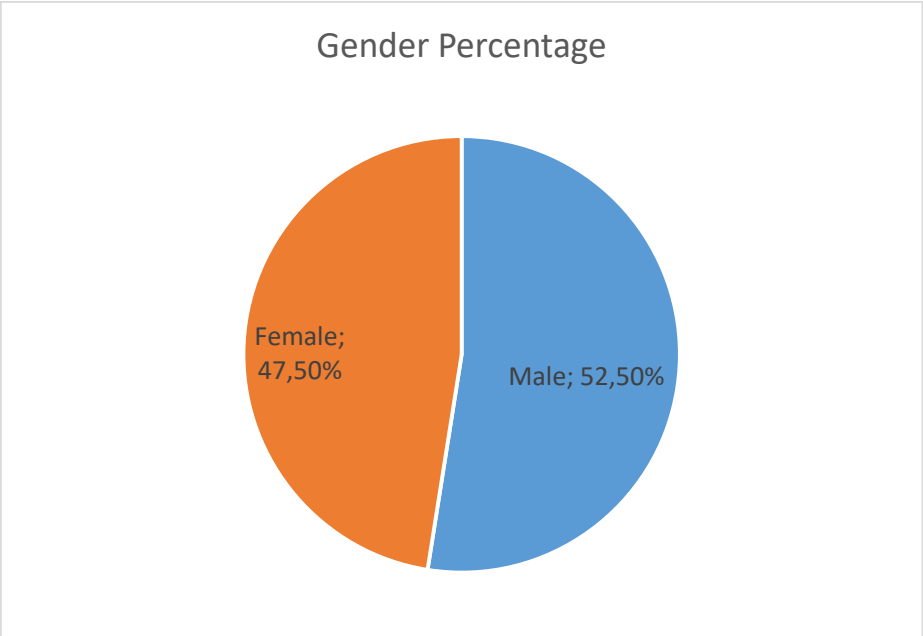


Figure 23. Gender Percentage of the Sample[61]

[61] *Author's own figure*

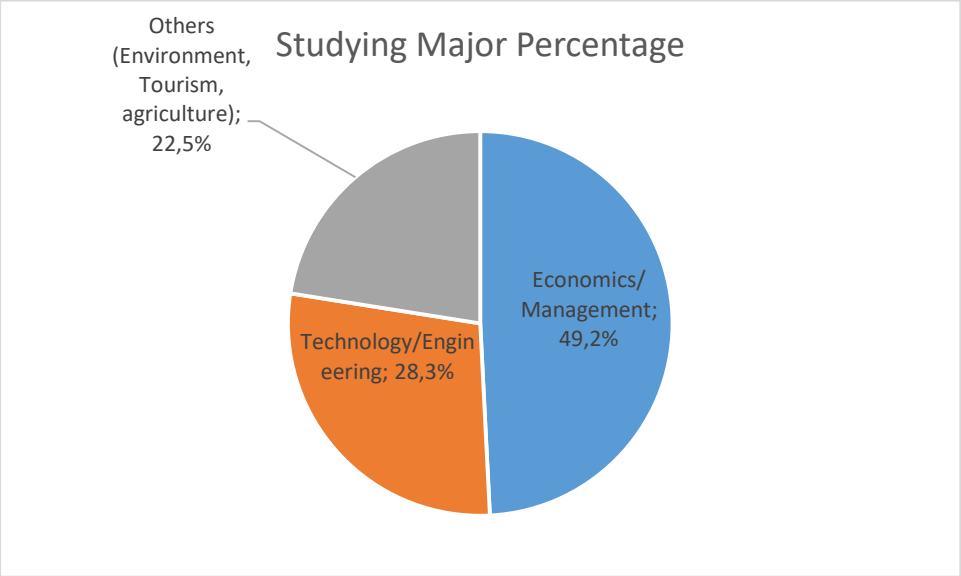


Figure 24. Studying Major Percentage of the Sample[62]

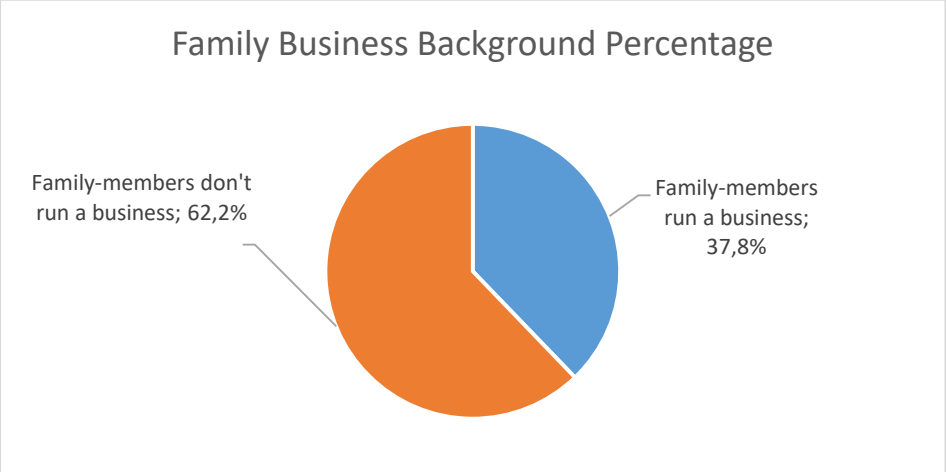


Figure 25. Family Business Background Percentage of the Sample[63]

[62,63] *Author's own figures*

5.4 Descriptive Analysis

The mean value and standard deviation value are the two important statistical values that tell a great deal about the corresponding variables. Here, the mean is a statistical model of the center of a distribution of scores and therefore measures the central tendency of the participants of the survey (Field, 2013, p.22). The standard deviation is ‘an estimate of the average variability (spread) of a set of data measured in the same units of measurement as the original data' (Field, 2013, p.884). Therefore, the mean and standard deviation of all latent constructs are examined. Notably, “a small standard deviation (relative to the value of the mean itself) indicates that the data points are close to the mean. A large standard deviation (relative to the mean) indicates that the data points are distant from the mean” (Field, 2013, p.27).

5.4.1 Social Entrepreneurial Intention: Mean and Standard Deviation

The measurement of the variable ‘Social Entrepreneurial Intention’ (SEi), uses a 7-point Likert scale from 1 to 7, on which 1 means “totally disagree,” and 7 means “totally agree”. Table 30 shows the result of this variable.

Here, the standard deviation of all items measuring Social Entrepreneurial Intention ranges from 1.811 to 2.003, which is far from 0. Therefore, all respondents were indeed engaged when answering the survey. These standard deviation values are close to 2. They can be considered average deviations; hence, all of the data points are distant from the mean. This result implies that there is a distinction from person to person. Furthermore, the mean of all items is in the range of 3, under 4. Therefore, there is a high level of neutral attitude toward social entrepreneurship. Most of the people asked to participate in the survey lack any clear intention to run a social enterprise.

Factor	Item	N	Mean	Std. Deviation
Social Entrepreneurial Intention	I am ready to do anything to be a social entrepreneur	600	3.385	1.861
	My professional goal is to become a social entrepreneur	600	3.387	1.811
	I will make every effort to start and run my own social enterprise	600	3.558	1.837
	I am determined to create a social enterprise in the future	600	3.433	1.885
	I have a strong intention to start a social enterprise someday	600	3.457	2.003

Table 30. Social Entrepreneurial Intention: Mean and Standard Deviation [64]

[64] *Author's own table*

5.4.2 Social Entrepreneurial Self-Efficacy: Mean and Standard Deviation

The measurement of this variable uses a 5-point Likert scale from 1 to 5, on which 1 means “totally disagree” and 5 means “totally agree.” Table 31 illustrates the means and the standard deviations for all items measuring Social Entrepreneurial Self-Efficacy in this thesis.

In contrast to Social Entrepreneurial Intention, the standard deviations here are considered small and range from 0.952 to 1.067. In other words, all data points are very close to the mean. In addition, the mean values are in the range of 3 (from 3.04 to 3.68), showing people’s tendency toward confidence in their own ability. All of the people who were asked to answer the questionnaire are confident in their ability related to entrepreneurship. In particular, people have the strongest belief in their capacity to encourage employees, as the mean for this item receives the highest value of 3.68. The second strongest confidence is for ‘recruit and hire employees’ and ‘reading financial statement’, with a mean value of 3.26 for both items. In contrast, respondents appear to be less self-assured about organizing and maintaining the finance records of a social enterprise, as the mean of this item has the lowest value of 3.040.

Table 31. Social Entrepreneurial Self-Efficacy: Mean and Standard Deviation[65]

Variable	Item	N	Mean	Std. Deviation
Social Entrepreneurial Self-Efficacy	Brainstorm (come up with) ideas for new products/services	600	3.070	0.952
	Identify the need for new products/services	600	3.083	1.067
	Design products/services that will satisfy customer and social needs and wants	600	3.083	1.025
	Determine an adequate price for a new product/service	600	3.098	1.047

	Convince others to identify with and believe in my vision and plans for a new social business	600	3.350	1.027
	Recruit and hire employees	600	3.260	0.952
	Effectively address day-by-day problems and crises	600	3.190	0.896
	Inspire, encourage, and motivate employees	600	3.680	0.969
	Train employees	600	3.160	1.004
	Organize and maintain the financial records of my social business	600	3.040	0.913
	Manage the financial assets of my social business	600	3.230	0.999
	Read and interpret financial statements	600	3.260	1.052

[65] *Author's own table*

5.4.3 Social Entrepreneurial Outcome Expectation: Mean and Standard Deviation

Similar to Social Entrepreneurial Self-Efficacy, the measurement for the variable 'Social Entrepreneurial Outcome Expectation' uses a 5-point Likert scale from 1 to 5, where 1 means "totally disagree" and 5 means "totally agree". Table 32 illustrates the mean and standard deviation values for five items measuring Social Entrepreneurial Outcome Expectation.

All standard deviation values here are less than 1 (ranging from .943 to .993), which are considered very small. A small standard deviation implies the spreading range of all data is not distant from the mean value. In other words, the mean value is central and representative of the whole sample. Moreover, the mean values of the five indicators are in the range of greater than 3.5 and nearly reach 4 (from 3.59 to 3.87). Therefore, the participants of this survey profoundly believe in the outcomes that would result when they start their owned social enterprises. Remarkably, the mean values for the two items 'personal rewards' and 'family security' are the same and obtain the highest rate of 3.87. In interpretation, the students highly expect to secure their family members and to have their ability and their contribution to social entrepreneurship be recognized by the public (see table 32).

Table 32. Social Entrepreneurial Outcome Expectation: Mean and Standard Deviation[66]

Variable	Item	N	Mean	Std. Deviation
Social Entrepreneurial Outcome Expectation	Financial rewards (e.g., personal wealth and increase personal income)	600	3.83	0.993
	Independence/Autonomy (e.g., personal freedom and be your own boss)	600	3.84	0.990
	Personal rewards (e.g., public recognition, personal growth, and to prove I can do it)	600	3.87	0.943
	Family security (e.g., to secure future for my family members and to build a business to pass on)	600	3.87	0.960
	Social impacts (e.g., to address social problems, improve the quality of life of the whole society and contribute to the sustainable development of society)	600	3.59	0.984

[66] *Author's own table*

5.4.4 Entrepreneurship Education: Mean and Standard Deviation

The measurement for the construct 'Entrepreneurship Education' is also a 5-point Likert scale from 1 to 5, on which 1 means 'not at all', and 5 means 'very much'. Four questions for Entrepreneurship Education indicate how much students have learned about 'opportunity recognition', 'opportunity evaluation', 'starting a business' and 'corporate enterprise'. Table 33 describes the results of the mean and standard deviation of entrepreneurship education-related items.

Here, the standard deviation values all are near 1 (ranging from 1.169 to 1.199), which are considered small. A small standard deviation means that all data points are very close to the mean. In addition, the mean values of all indicators are in the range of 2.5 (from 2.67 to 3.00), which show a tendency toward less than the neutral point of 3. Therefore, almost all students participating in the study have learned only a little bit about entrepreneurship. Only for the course named 'corporate enterprise' do they answer as though they have learned a basic background. They have few clues about learning about start-ups, such as recognizing opportunity, evaluating opportunity, and running a new enterprise.

Variable	Item	N	Mean	Std. Deviation
Entrepreneurship Education	Opportunity recognition	600	2.85	1.199
	Opportunity evaluation	600	2.77	1.179
	Starting a business	600	2.67	1.197
	Corporate enterprise	600	3.00	1.169

Table 33. Entrepreneurship Education: Mean and Standard Deviation[67]

[67] *Author's own table*

5.4.5 Entrepreneurship Experience: Mean and Standard Deviation

All of the perspectives of the Entrepreneurship Experience such as experiences in new business venture start-up, new market development, new product development, and social entrepreneurship were measured. The scale is the same as the scale for Entrepreneurship Education. It is a 5-point Likert scale from 1 to 5, where 1 means ‘‘not at all’’ and 5 means ‘‘very much’’. Table 34 reports the standard deviations and mean values of all items measuring entrepreneurship experience.

The standard deviation values are also close to 1 (ranging from 1.206 to 1.311), which are referred to as small. A small standard deviation implies the spreading range of all data is not so distant from the mean value. Moreover, the mean values for all indicators are in the range of 2 (from 2.50 to 2.64), particularly less than the neutral point of 3. The experiences in entrepreneurship of the respondents are therefore poor. They do not have many skills or knowledge relevant to entrepreneurship. However, the finding that the participants’ experiences in social entrepreneurship are equal to experiences in new product development and are better than other items such as starting up a new venture or development of a new market is fascinating.

Variable	Item	N	Mean	Std. Deviation
Entrepreneurship Experience	New business venture start-up	600	2.54	1.206
	New market development	600	2.50	1.220
	New product development	600	2.64	1.248
	Social entrepreneurship	600	2.64	1.311

Table 34. Entrepreneurship Experience: Mean and Standard Deviation[68]

[68] *Author’s own table*

5.4.6 Entrepreneurship Extra-curricular Activity: Mean and Standard Deviation

The measurement of this variable also uses a 5-point Likert scale from 1 to 5 where 1 means “never” and 5 means “very often”. Table 35 mentions the means and standard deviations for all indicators of Entrepreneurship Extra-curricular Activity.

The standard deviation values here range from 1.173 to 1.275. They are far away from the value of 0, implying that all respondents were actually engaged when answering the survey. However, these are small deviations. All of the data points are close to the mean. Moreover, the mean value of every item is close to 2 (ranging from 2.31 to 2.70). They are all under the value of 3, which is the neutral point in the scale. The students infrequently take entrepreneurship-related actions such as attending entrepreneurship conferences or entrepreneurship competition. Nevertheless, it is surprising that the mean of item ‘participate in a talk(s) or a forum(s) or an interview(s) with entrepreneurs’ showed the highest value (2.70). This result suggests that these students might be interested more in direct talks or forums with entrepreneurs than in other activities such as conferences, competitions, and clubs.

Variable	Item	N	Mean	Std. Deviation
Entrepreneurship Extra-Curricular Activity	Attend a conference(s) about entrepreneurship	600	2.69	1.173
	Participate in a competition(s) about entrepreneurship (e.g., idea, business plan, business model, and creating a new product/service)	600	2.31	1.217
	Be a member of entrepreneurship clubs	600	2.41	1.275
	Participate in a talk(s) or a forum(s) or an interview(s) with entrepreneurs	600	2.70	1.255

Table 35. Entrepreneurship Extra-curricular Activity: Mean and Standard Deviation[69]

[69] *Author's own table*

5.4.7 Perceived Support: Mean and Standard Deviation

In terms of Perceived Support, eight items involved in both financing and counseling/networking are used. The respondents were asked to state the level of support they expect to receive from all sources such as family, friends, fellows, and institutions if they start their social enterprises. All items were measured on a 5-point Likert scale, ranging from 1 = “totally disagree” to 5 = “totally agree”. Table 36 expresses the means and standard deviations of all eight indicators.

The standard deviations of all items are also near 1 (ranging from 1.047 to 1.190); these values are considered small deviations. The result shows that all data points stand closely to the mean value. Furthermore, the mean values of these eight indicators are not far from the neutral value of 3. They range from 2.92 to 3.75, implying that the participants are not confident that they would receive support in both finance and network/consultancy if they started their own social businesses. Specifically, the mean anticipated finance support from a friend is the lowest compared with the others, indicating that acquiring monetary support from friends when running a social enterprise appears difficult. However, friends can contribute significantly in terms of giving advice and consultancy because the mean value of this item is 3.23. More interesting is that the means of indicators of anticipated support from other institutions such as government, banks, incubators, investment organizations are the highest values. The mean of institutions’ finance support is 3.75, which is the largest number. The mean of networking and counseling from organizations is 3.51, which is the second-largest value. The students expect to receive significant assistance from the government and the community for their social activities.

Variable	Item	N	Mean	Std. Deviation
Perceived Support	Finance support from family	600	3.01	1.190
	Finance support from friends	600	2.92	1.097
	Finance support from fellow students	600	3.01	1.082
	Finance support from other institutions (i.e., funds from government, venture capitalists, banks, and business angels)	600	3.75	1.111
	Networking and Counseling support from family	600	3.16	1.093
	Networking and Counseling support from friends	600	3.23	1.047
	Networking and Counseling support from fellow students	600	3.19	1.081
	Networking and Counseling support from other institutions (i.e., funds from government, venture capitalists, banks, and business angels)	600	3.51	1.088

Table 36. Perceived Support: Mean and Standard Deviation[70]

[70] *Author's own table*

5.4.8 Role Model: Mean and Standard Deviation

The last variable is Role Model. For measuring this construct, a 5-point Likert scale, ranging from 1 = “totally disagree”, 5 = “totally agree”, is also applied. Table 37 describes the mean and standard deviation of all items measuring Role Model.

The mean values here all are under the neutral point of 3 (ranging from 2.10 to 2.69), and the standard deviations are in the range of 1 (from 1.174 to 1.236), implying that all data points of each item are close to their mean value because the standard deviation values are considered small (value of 1). In summary, the participants do not personally know entrepreneurs in general or social entrepreneurs in particular. Specifically, their contacts with social entrepreneurs are much less than with business entrepreneurs, as the means of two items addressing social entrepreneur are lower than the means of the two others in terms of business entrepreneurs (see table 37).

Variable	Item	N	Mean	Std. Deviation
Role Model	I personally know other people who are business entrepreneurs	600	2.69	1.211
	I personally know other people who are social entrepreneurs	600	2.29	1.172
	I personally know successful business entrepreneurs	600	2.45	1.236
	I personally know successful social entrepreneurs	600	2.10	1.204

Table 37. Role Model: Mean and Standard Deviation[71]

[71] *Author’s own table*

5.5 Factor Analysis

Factor analysis is a broad term that represents a variety of statistical techniques that allow for estimating the population-level (i.e., unobserved) structure underlying the variations of observed variances and their interrelationships (Gorsuch, 1983; Kim & Mueller, 1978). It is "intimately involved with the question of validity", and it "is at the heart of the measurement of psychological constructs" (Nunnally, 1978, pp. 112-113). In other words, factor analysis provides a diagnostic tool to evaluate whether the collected data are in line with the theoretically expected pattern or structure of the target construct and thereby to determine whether the measures used have indeed measured what they are purported to measure. Factor analysis encompasses two main techniques: so-called Exploratory Factor Analysis (EFA) and confirmatory factor analysis (CFA). EFA attempts to discover complex patterns by exploring the dataset and testing predictions, whereas CFA tries to validate hypotheses and uses path analysis diagrams to present variables and factors (Child, 2006). The following sections provide details of EFA and CFA of the study.

5.5.1 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA[72]) is also known as reducing dimensionality. It performs based on the theory that measurable and observable variables can be reduced to fewer 'latent variables' (Bartholomew, Knott, & Moustaki, 2011). It uncovers the number of factors influencing variables and analyzes which indicators "go together" into which factor (DeCoster, 1998). A basic hypothesis of EFA is to ascertain the smallest number of common factors that should be considered when analyzing the correlations in the entire dataset for all latent factors (McDonald, 1985).

[72] *For more information, refer to section 4.2.2.3*

The number of retained factors depends on both underlying theory and empirical results. There are no specific rules for keeping items. However, Eigenvalues greater than 1 (Kaiser's criteria) or a Scree-Test of the percentage of variance explained (Cattell, 1966) are commonly used to determine the number of factors to keep. Another criterion is based on the variance of extracted factors (Costello & Osborne, 2005; Field, 2013). The percentage of the total item explained-variance is also necessary; the higher the percentage is, the better the result is. Once again, there are no strict guidelines, but 60% can serve as a minimum acceptable target. At this stage, items loading inappropriately can be deleted and the analysis repeated until a “clear factor structure matrix” that explains a high percentage of total item variance (i.e., greater than 60%) is obtained (Kim and Mueller, 1978).

In addition, the number of preserved items for each factor relies on factor loading values, as they illustrate the content domain of the latent construct. The ‘‘useful heuristic might be an appropriate loading of greater than .40 and a loading twice as strong on the appropriate factor than on any other factor” (Ford et al., 1986). The higher communality the variable has, the more likely is to be maintained (Costello and Osborne, 2005). Furthermore, one factor should comprise at least three items (Tabachnick & Fidell, 2010), and no cross loading (i.e., an item loads at .32 or higher on two or more factors) exists (Costello & Osborne, 2005).

As in section 4.2.2.3, the validation of the factorability of the dataset through Bartlett’s test of Sphericity (Bartlett, 1954) and the Kaiser-Meyer-Olkin (KMO) test is run in order to ensure the adequacy of the sample (Kaiser, 1970). Then, the exploration of the number of extracted factors and number of items loaded into one factor are provided in the following sections.

5.5.1.1 Kaiser Meyer-Olkin Test

The Kaiser-Meyer-Olkin (KMO) test is a measure of the data's adequacy for Factor Analysis[73]. According to table 38, the adequacy of the thesis sample is 'marvelous' as the KMO value is greater than 0.9 (Hutcheson & Sofroniou, 1999, p 224-225). The approximate chi-square is 17927.830 with 1035 degrees of freedom.

The Bartlett test of sphericity is significant with P-value less than 0.001. Therefore, the sample is highly desirable for further analysis, and the factor analysis (i.e., EFA and CFA) can operate properly (Hutcheson & Sofroniou, 1999; Dziuban & Shirkey, 1974).

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.911
Bartlett's Test of Sphericity	Approx. Chi-Square	17927.830
	df	1035
	Sig.	.000

Table 38. KMO and Barlett's Test of the Final Sample[74]

[73] *For more information, refer to section 4.3.2.3*

[74] *Author's own table*

5.5.1.2 Communality

Communality is the square of a standardized indicator's outer loading; in other words, it is the variance extracted from the item. According to the established *rule of thumb,* communality should be at least 0.5 (Hair et al., 2014, p.103).

Table 39 describes the communality values of all items in the questionnaire. All of these values are greater than 0.5, implying that all indicators explain very well the variance of the latent variables in the study (Hair et al., 2014, p.103).

Table 39. Communality Values of the Final Sample[75]

Communality Values		
	Initial	**Extraction**
SelfQ6S	1.000	.706
SelfQ7S	1.000	.682
SelfQ8S	1.000	.680
SelfQ9P	1.000	.594
SelfQ13IP	1.000	.608
SelfQ14IP	1.000	.670
SelfQ15IP	1.000	.665
SelfQ16IP	1.000	.514
SelfQ17IP	1.000	.500
SelfQ19IF	1.000	.672
SelfQ20IF	1.000	.814
SelfQ21IF	1.000	.684
OExQ22	1.000	.676
OExQ23	1.000	.673
OExQ24	1.000	.678
OExQ25	1.000	.658

OExQ26SE	1.000	.526
EdQ50	1.000	.808
EdQ51	1.000	.812
EdQ52	1.000	.780
EdQ53	1.000	.638
ExQ54	1.000	.667
ExQ55	1.000	.703
ExQ56	1.000	.705
ExQ57	1.000	.623
EaQ58	1.000	.638
EaQ59	1.000	.728
EaQ60	1.000	.724
EaQ61	1.000	.529
PsQ62F	1.000	.551
PsQ63F	1.000	.581
PsQ64F	1.000	.538
PsQ65F	1.000	.519
PsQ66C	1.000	.570
PsQ67C	1.000	.626
PsQ68C	1.000	.558
PsQ69C	1.000	.573
RmQ70	1.000	.713
RmQ71SE	1.000	.820
RmQ72	1.000	.822
RmQ73SE	1.000	.729
SEiQ74	1.000	.800

SEiQ75	1.000	.895
SEiQ76	1.000	.872
SEiQ77	1.000	.874
SEiQ78	1.000	.850
Extraction Method: Principal Component Analysis.		

[75] *Result table from SPSS version 24*

5.5.1.3 Pattern Matrix

The pattern matrix provides the loading value of each item into one factor. This loading value presents the strength of the relationship between the item and the latent factor.

Table 40 is the pattern matrix extracted from the final dataset. All of the items are highly loaded into the latent constructs with values greater than 0.5. Every item loads into a single factor. No cross-loadings (i.e., one item loads more than 0.32 into more than two factors) exist for this sample. The result confirms that the latent variables in the study are measured excellently by the 46 observed variables from the questionnaire.

Table 40 also shows that the twelve items measuring Social Entrepreneurial Self-Efficacy are divided into 3 components (components 4, 8, and 9). The five items measuring Social Entrepreneurial Outcome Expectation load into component 5. The four items addressing to Entrepreneurship Education go together into component 6. The four items of Entrepreneurship Experience and the four units of Entrepreneurship Extra-curricular Activity load into one component (component 1). The four indicators on Role Model go together into one component (component 7). The eight items measuring Perceived Support are in component 2. Similarly, the five items of Social Entrepreneurial Intentions also load together into component 3.

Table 40. Matrix Pattern for the final sample[76]

Pattern Matrix[a]									
	Component								
	1	2	3	4	5	6	7	8	9
Brainstorm (come up with) ideas for new products/services								0.846	
Identify the need for new products/ services								0.771	
Design products/ services that will satisfy customer as well as social needs and wants								0.840	
Determine an adequate price for a new product/ service								0.645	
Get others to identify with and believe in my vision and plans for a new social business				0.735					
Recruit and hire employees				0.815					
Deal effectively with day-by-day problems and crises				0.824					
Inspire, encourage, and motivate employees				0.685					
Train employees				0.690					
Organize and maintain the financial records of my social business									0.619
Manage the financial assets of my social business									0.930
Read and interpret financial statements									0.781
Financial rewards (e.g., personal wealth. increase personal income)					0.791				
Independence/ Autonomy (e.g., personal freedom, by your own boss)					0.833				
Personal rewards (e.g., public recognition, personal growth, to prove I can do it)					0.829				
Family security (e.g., to secure future for my members, to build a business to pass on)					0.826				
Social impacts (e.g., to address social problems. improve quality of life the whole society, contribute to the sustainable development of society)					0.567				
Opportunity recognition						0.855			
Opportunity evaluation						0.910			
Starting a business						0.857			
Corporate enterprise						0.797			
New business venture start-up	0.764								
New market development	0.763								
New product development	0.841								
Social entrepreneurship	0.654								

Attend a conference(s) about entrepreneurship	0.804								
Participate in a competition(s) about entrepreneurship (e.g., idea, business plan, business model, creating a new product/ service)	0.901								
Be a member of entrepreneurship clubs	0.917								
Participate in a talk(s) or a forum(s) or an interview(s) with entrepreneurs	0.608								
Finance support from my closest family		0.675							
Finance support from my friends		0.706							
Finance support from my fellow students		0.723							
Finance support from other institutions (e.g., funds from government. venture capitalists, banks, business angles)		0.706							
Networking and Counselling support from my closest family		0.748							
Networking and Counselling support from my friends		0.784							
Networking and Counselling support from my fellow students		0.748							
Networking and Counselling support from other institutions (e.g., funds from government, venture capitalists, banks. business angles)		0.741							
I personally know other people who are business entrepreneurs							0.880		
I personally know other people who are social entrepreneurs							0.864		
I personally know successful business entrepreneurs							0.927		
I personally know successful social entrepreneurs							0.788		
I am ready to do anything to be an social entrepreneur			0.870						
My professional goal is to become an social entrepreneur			0.944						
I will make every effort to start and run my own social enterprise			0.926						
I am determined to create a social enterprise in the future			0.894						
I have the strong intention to start a social enterprise someday			0.901						
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.									
a. Rotation converged in 6 iterations.									

[76] *Author's own table resulted from SPSS version 24*

5.5.1.4 Scree Plot

The Scree Plot is the graphical test for determining the number of factors (Cattell, 1966). It diagrams Eigenvalue[75] magnitudes on the vertical access, with Eigenvalue numbers constituting the horizontal axis. The Eigenvalues are plotted as asterisks within the graph, and successive values are connected by a line. Factor extraction should be stopped at the point at which there is an "elbow" or a leveling of the plot (Thompson, 2004, p.33).

Figure 26 illustrates the Scree Plot for 600 cases of data for the first 46 items in the questionnaire. The plot suggests that nine factors (i.e., where the "elbow" occurs) should be extracted (Nasser, Benson, & Wisenbaker, 2016).

However, the next section 5.5.1.5 presents more details of the factors extracted in the study.

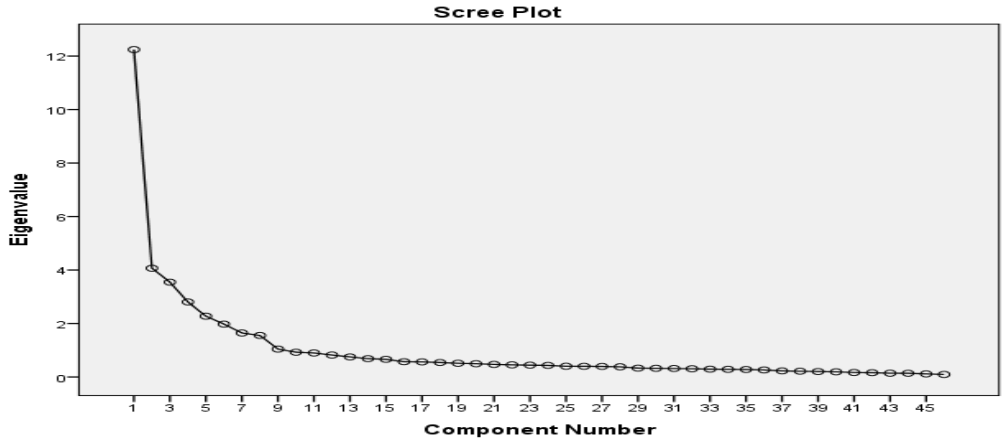


Figure 26. Scree-Plot of the Final Sample[76]

[75] *Factors, by definition, are latent constructs created as aggregates of measured variables and so should consist of more than a single measured variable. If a factor consisted of a single measured variable, even when that measured variable had a pattern/structure coefficient of 1.0 (or -1.0), and all other variables on that factor had pattern/structure coefficients of .0, the factor would have an Eigenvalue of 1.0. Therefore, in 1954, Guttman pointed out those noteworthy factors should have Eigen-values greater than 1.0 (Thompson, 2004, p.32)*

[76] *Author's own figure resulted from SPSS version 24*

5.5.1.5 Factor Extracted

Table 41 shows the result of total variance explained for the final dataset. Only extracted and rotated values are meaningful for interpretation. The factors are arranged in descending order based on the largest explained variance. The extraction sums of squared loadings are identical to the Initial Eigenvalue. However, factors with Eigenvalues less than 1 do not appear in the extraction sums of squared loadings. The rotation sums of squared loadings describe the variance of the factor after rotation. According to table 41, there are nine factors extracted based on Eigenvalues greater than 1 (Kaiser's criteria). These nine factors can explain approximately 68% of the variance, which is highly reliable, as the cut-off value of this explanation is 60% (Kim & Mueller, 1978).

Moreover, according to the pattern matrix (table 40), all observed variables load well to every single factor with all factor loadings value greater than 0.5. Remarkably, four indicators addressing Entrepreneurship Experience and four items measuring Entrepreneurship Extra-curricular Activity go together into one factor (factor 1). In contrast, twelve items related to Social Entrepreneurial Self-Efficacy are split into three factors (factors 6, 7, and 9). All other variables, such as Entrepreneurship Education, Role Model, Perceived Support, Social Entrepreneurial Outcome Expectation, and Social Entrepreneurial Intention, are placed separately into a single factor.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	12,234	26,596	26,596	12,234	26,596	26,596	9,105
2	4,070	8,848	35,444	4,070	8,848	35,444	4,821
3	3,539	7,694	43,138	3,539	7,694	43,138	7,807
4	2,800	6,086	49,224	2,800	6,086	49,224	6,048
5	2,271	4,938	54,162	2,271	4,938	54,162	3,863
6	1,983	4,312	58,474	1,983	4,312	58,474	6,806
7	1,642	3,569	62,043	1,642	3,569	62,043	5,826
8	1,551	3,371	65,414	1,551	3,371	65,414	5,497
9	1,042	2,264	67,678	1,042	2,264	67,678	5,465
10	0,925	2,010	69,689				
11	0,904	1,964	71,653				
12	0,819	1,781	73,434				
13	0,750	1,630	75,064				
14	0,684	1,486	76,550				
15	0,660	1,436	77,986				
16	0,569	1,238	79,224				
17	0,562	1,222	80,446				
18	0,540	1,173	81,619				
19	0,513	1,114	82,734				
20	0,495	1,076	83,809				
21	0,470	1,022	84,831				
22	0,453	0,985	85,816				
23	0,445	0,968	86,784				
24	0,435	0,946	87,730				
25	0,404	0,879	88,609				
26	0,400	0,869	89,478				
27	0,395	0,858	90,337				
28	0,380	0,827	91,164				
29	0,336	0,731	91,895				
30	0,325	0,707	92,602				
31	0,316	0,688	93,290				
32	0,308	0,670	93,960				
33	0,292	0,635	94,595				
34	0,286	0,622	95,217				
35	0,280	0,610	95,827				
36	0,265	0,576	96,402				
37	0,228	0,496	96,899				
38	0,216	0,469	97,368				
39	0,204	0,443	97,811				
40	0,192	0,418	98,229				
41	0,166	0,361	98,589				
42	0,159	0,346	98,935				
43	0,141	0,308	99,243				
44	0,140	0,304	99,547				
45	0,115	0,250	99,797				
46	0,094	0,203	100,000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total

Table 41. Total Variance Explained of Suggested Components[77]

[77] *Author's own table (resulted from SPSS version 24)*

5.5.1.6 Summary of EFA Results

Table 42 presents a summary of the EFA results. The Kaiser-Mayer-Olkin (KMO) values for all scales are greater than the required cut-off value of 0.6 (Kaiser & Rice, 1974), and the Bartlett test with significance levels of 0.000 implies a good suitability for further analysis (Hutcheson & Sofroniou, 1999; Dziuban & Shirkey, 1974). Nine latent factors are extracted reliably from 46 observed variables with Eigenvalues greater than 1 (Costello & Osborne, 2005; Field, 2013) and total variance explained of 68%. In more detail, for Entrepreneurship Education, one factor with the Eigenvalue of 3.065 is extracted, and this factor explains approximately 76.64% of the variance. For Entrepreneurship Experience together with Entrepreneurship Extra-curricular Activity, one factor with the Eigenvalue of 5.159 is derived, and the total variance explained is 64.45%. Regarding Perceived Support, the analysis shows the solution with one factor that has an Eigenvalue of 4.272 and an explained variance of 65.92%. For Role Model, the analysis reveals a solution with one factor that has an Eigenvalue of 3.066 and an explained variance of 76.65%. For Social Entrepreneurial Outcome Expectation, one factor with the Eigenvalue of 3.035 is acquired, and it can express 60.71% of the variance. Similarly, the same solution is obtained for Social Entrepreneurial Intention. One factor with an Eigenvalue of 4.270 is obtained from the five observed items, and the total explained variance is 85.39%. In contrast, an exception has been found with respect to Social Entrepreneurial Self-Efficacy. With twelve observed variables, three factors with Eigenvalues greater than 1 (i.e., 5.243; 1.494 and 1.041) are procured. These three factors together can explain 64.81% of the variance. In particular, the factor correlations of these three factors (see table 42) all are greater than the cut-off value of 0.3 (Weiber & Muehlhaus, 2014, p.138).

Scales	KMO	Explained variables	Factor 1 Eigen-value	Factor 2 Eigen-value	Factor3 Eigen-value
Entrepreneurship Education	0.817	76.64%	3.065		
Entrepreneurship Experience & Extra-curricular Activity	0.884	64.45%	5.159		
Perceived Support	0.867	65.92%	4.272		
Role Model	0.791	76.65%	3.066		
Social Entrepreneurial Outcome Expectation	0.835	60.71%	3.035		
Social Entrepreneurial Self-Efficacy	0.879	64.81%	5.243	1.494	1.041
Social Entrepreneurial Intention	0.890	85.39%	4.270		

Table 42. Summary of the Exploratory Factor Analysis results[78]

Component	1	2	3
1	1,000	,468	,568
2	,468	1,000	,454
3	,568	,454	1,000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Table 43. Correlation between Three Components of the Factor 'Social Entrepreneurial Self-Efficacy'[79]

[78] *Author' own table*

[79] *Author's own table resulted from SPSS version 24*

5.5.2 Confirmatory Factor Analysis

Although the Exploratory Factor Analysis (EFA) discussed earlier can be quite useful for assessing the extent to which a set of items evaluates a particular content domain (or set of scales), a major weakness of this technique is the inability to quantify the 'goodness-of-fit' of the resulting factor structure. To overcome this issue, the solution is running a so-called Confirmation Factor Analysis (CFA) procedure.

EFA explores the factor structure, whereas CFA can confirm whether this factor structure has been conducted thoroughly and appropriately. CFA is a type of structural equation analysis that is designed to assess the goodness-of-fit of rival models (Joreskog and Sorbom, 1993). Three procedures must be complied with when performing CFA: (1) model fit, (2) convergent validity, and (3) construct reliability.

5.5.2.1 Model Fit

In the structural equation modeling, the fit indices establish whether the model is acceptable overall. If the model is acceptable, researchers then establish whether specific paths are significant. There are several statistics for assessing goodness-of-fit.

First, the chi-square statistic permits the assessment of the fitness of a specific model and of the comparison between two models. The smaller the chi-square is, the better the fit of the model is. It has been suggested that a chi-square ($\chi 2$) two or three times greater than the degrees of freedom is acceptable (Carmines and Mclver, 1981), but the 'fitness' is considered better when the chi-square value is closer to the degrees of freedom for a model (Thacker, Fields, and Tetrick, 1989). In other words, the relative chi-square (Cmin/df), which equals the chi-square index (Cmin) divided by the degrees of freedom (df), should be less than 2 or 3 (Kline, 1998; Ullman, 2001). However, chi-square (χ 2) is quite sensitive to sample size. As such, a significant chi-square might not be problematic if additional fit indices are adequate.

In addition to chi-square, there are currently approximately 30 'goodness-of-fit' indices that can assess confirmatory factor analysis results (MacKenzie, Podsakoff, & Fetter, 1991). For instance, Muliak et al. (1989) recommend using the adjusted goodness of fit index (AGFI), normalized fit index (NFI), and Tucker-Lewis index (TLI) to examine the correspondence between the proposed model and the data. Widaman (1987)

suggests the usefulness of using the examination of competitive fit index (CFI). Bagozzi et al. (1991) argue in favor of applying the root mean square residual (RMSR) to decide the 'goodness of fit' of the model.

Table 44 illustrates indices of the 'goodness of fit' from the different sources in the literature. Notably, there are numerous indices for validating the research model; the cut-off values for these indices are also controversial. For example, the relative chi-square index (Cmin/df) is recommended to be less than 5 as acceptable by Mrsh and Hocevar (1985). With the general approach, Thacker et al. (1989) assert 'the smaller the better'. In contrast, Carmines & Mclver (1981) agree with Kline (2006) and Ullman (2001) that Cmin/df should be smaller than 2 or 3 to ensure that the structure model is good. Similar to the normal fit index (NFI), the cut-off values are also distinct from author to author. According to Byrne (1994) and Chau (1997), the threshold of NFI is greater than 0.90, whereas NFI should be greater than 0.95 based on the suggestion from Schumacker & Lomax (2016). The debatable cut-off values of other goodness of fit indices are also reviewed.

Table 44. Goodness Index Indices and Threshold References[80]

Indices	Cut-off value	Author
Cmin/df	< 5	Marsh & Hocevar (1985)
Cmin/df	< 2 or 3	Carmines and Mclver (1981); Kline (1998); Ullman (2001)
Cmin/df	smaller is better	Thacker, Fields, and Tetrick (1989)
P-value	<.05	Pallant (2010)
Comparative Fit Index (CFI)	>.90	Widaman, 1987; Segars & Grover (1993)

Root Mean Square Residual	<.05	Bagozzi, Yi and Phillips (1991)
Normed Fit Index (NFI)	>.90	Byrne (1994); Chau (1997)
Normed Fit Index (NFI)	>.95	Schumacker & Lomax, 2004
Goodness of Fit Index (GFI)	>.90	Byrne (1994); Bentler (1990)
Goodness of Fit Index (GFI)	>.95	Hair et al., 2010
Comparative Fit Index (CFI)	>.93	(Byrne, 1994)
Root Mean Square (RMS)	<.08	Browne & Cudeck (2016); Hu & Bentler, 1998
Root Mean Square (RMS)	<.05 (Ideally)	Stieger, 1990
RMSEA (Root Mean Square Error of Approximation)	<0.08	Browne & Cudeck (2006)
TLI (Tucker-Lewis Index)	>.90	Hu & Bentler (1998); Bentler & Bonett (1980)

[80] *Author's own table*

However, many journals and books have applied the recommendation from Kenny (2014) and Hooper (2008) to report model fit indices. In these suggestions, there are five common indices for checking model fit: the Relative Chi-Square (CMIN/df)[81], Comparative Fit Index (CFI)[82], Root Mean Square Error of Approximation (RMSEA)[83], Normed Fit Index (NFI)[84], and Root Mean Square Residual (RMR)[85]. Therefore, this thesis also employs this proposition to confirm how good the factor structure of the study is. Moreover, to interpret the model fit indices, the cut-off value table was referenced from Hooper et al. (2008) (see table 45). According to Hooper et al. (2008), the hypothesized model is only valid when the Cmin/df is lower than 2, the CFI value is greater than 0.9, the RMSEA value is less than .08, the RMR value is under .5 and the CFI value is greater than 0.95.

Indices	Cmin/df	NFI	RMSEA	RMR	CFI
Cut-off value	<2	>0.9	<0.08	<0.5	>0.95

Table 45. Goodness Index Indices and Threshold Applied in the Thesis[86]

[81] *CMIN/df (=chi-squared divides by degree of freedom).*

[82] *CFI assumes that all latent variables are uncorrelated (null/independence model) and compares the sample covariance matrix with this null model (Hooper et al., 2008).*

[83] *RMSEA presents how well the model, with unknown but optimally chosen parameter estimates, would fit the population's covariance matrix (Byrne, 1998).*

[84] *NFI assesses the model by comparing the χ2 value of the model to the χ2 of the null model. The null/independence model is the worst scenario, as it specifies that all measured variables are uncorrelated (Hooper et al., 2008).*

[85] *RMR is the square root of the difference between the residuals of the sample covariance matrix and the hypothesized covariance model (Hooper et al., 2008).*

[86] *Author's own table, referencing Hooper et al. (2008)*

Here in this thesis, CFA is supported by the IBM SPSS AMOS 24 software. The results on the recommended indices by Hooper (2008) are presented in table 46. The values for Cmin/df, CFI, RMSEA, RMR and NFI are 1.706; .970; .031; .057, and .922, respectively. All of these values are better than the cut-off values (refer to table 45). Therefore, the results indicate a good model fit, and the measurement model with nine factors deduced from the EFA is marked as acceptable and reliable for further analysis (Hooper et al., 2008).

Indices	Cmin/df	NFI	RMSEA	RMR	CFI
Cut-off value	<2	>0.9	<0.08	<0.5	>0.95
Value	**1.575**	**0.922**	**0.031**	**0.057**	**0.970**

Table 46. Goodness Index Indices of the Measurement Model[87]

[87] *Author's own table resulted from SPSS24*

5.5.2.2 Convergent Validity

Convergent validity means the extent to which a measure associates positively with alternative measures of the same construct (Hair et al., 2014, p.102). Applying the domain-sampling model, indicators of a reflective construct are considered different approaches to evaluate the same construct. Therefore, the items that are indicators of a particular construct should converge or share a high proportion of a variable. For establishing the convergent validity, the common measure is the average variance extracted (AVE) (Hair et al., 2014, p.103).

AVE is identified as the grand mean value of the squared loadings of the indicators connected to the construct (i.e., the sum of the squared loadings divided by the number of indicators). The high outer loadings on a construct indicate that the associated items have much in common. In order to reach the convergent validity, the AVE value should be 0.5 or higher, which ensures the construct explains more than 50% of the variance of its indicators (Hair et al., 2014, p.103). However, in some cases, AVE being less than .5 is acceptable if composite reliability is greater than 0.6; the convergent validity of the construct is adequate (C. Fornell & D. F. Larcker, 1982, pp. 39-50).

Table 47 shows the AVE for all constructs in the first CFA procedure. For this first operation, AVE values for the variables such as Entrepreneurship Education (Ed), Entrepreneurship Experience and Extra-curricular Activity (ExEa), Role Model (Rm), Perceived Support (Ps), Social Entrepreneurial Outcome Expectation (OE) and Social Entrepreneurial Intention are 0.684; 0.582; 0.688; 0.649; 0.524; 0.558 and 0.809, respectively. These numbers are greater than the AVE cut-off value of 0.5. Hence, the convergent validity of these five constructs is satisfied (Hair et al., 2014, p.103).

Concerning the variable ‘Social Entrepreneurial Self-Efficacy’, three factors (Self1, Self2, and Self3) are extracted from the EFA[88]. The AVE values for the two factors Self2 and Self3 are greater than 0.5; only AVE of the factor Self1 is less than 0.5 (i.e., 0.473). The composite reliability (CR) for this factor, Self1, being greater than 0.6, is acceptable for the convergent validity criterion as suggested by C. Fornell

[88] *For more information, refer to section 5.4.1.6*

& D.F. Larcker (1981). However, to have a better result of the data, one experiment is conducted to improve this AVE value instead of accepting the value less than .5 (Ping, R. A., 2007). Originally, the construct 'Social Entrepreneurial Self-Efficacy' should be extracted into one factor. Nevertheless, under the EFA, the three factors Self1, Self2, and Self3 are derived. This division can cause the problem of convergent validity for the 'Social Entrepreneurial Self-Efficacy' variable. Therefore, to solve this issue, the three factors Self1, Self2, and Self3 are joined again into a single latent variable as Self. Then, a renewed CFA is run.

The result of the second CFA is described in table 48. It illustrates that the three factors self1, self2, and self3 are loaded acceptably into the latent factor Self, with values of 0.80, 0.70, and .085, respectively. Hence, the AVE of Self is 0.613, which is greater than the cut-off value of 0.5. Hence, in order to establish the convergent validity for the construct 'Social Entrepreneurial Self-Efficacy', this variable is returned to its initial form as one factor instead of three.

In conclusion, the convergent validity of each dimension is inspected carefully. All seven latent variables, i.e., Entrepreneurship Education (Ed), Entrepreneurship Experience & Extra-curricular Activity (ExEa), Role Model (Rm), Perceived Support (Ps), Social Entrepreneurial Self-Efficacy (Self), Social Entrepreneurial Outcome Expectation (OE), and Social Entrepreneurial Intention (SEi), reach the convergent validity standard.

Table 47. AVE Results of the First CFA[89]

Variable	AVE
Ed	0.684
ExEa	0.582
Rm	0.688
Ps	0.524
Self1	**0.473**
Self2	0.546
Self3	0.618
OE	0.558
SEi	0.809

Table 48. AVE Results of the Second CFA[90]

Variable	AVE
Ed	0.684
ExEa	0.582
Rm	0.688
Ps	0.524
Self	0.613
OE	0.558
SEi	0.809

[89,90] *Author's own tables*

5.5.2.3 Discriminant Validity

Campbell and Fiske (1959) explicitly recognize the fact that discriminative construct validity goes hand in hand with construct validity. “One cannot define without implying distinctions, and the verification of these distinctions is an important part of the validation process” (Campbell, 1988, p. 40). Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards. Hence, establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model (Hair et al., 2014, p.104).

The measure of discriminant validity has been controversial as it has many different approaches. For instance, according to Gaski & Nevin (1985), there are two criteria for checking the discriminant validity. The first criterion is that the correlation coefficient between any two variables should be less than 1. The second condition is that the correlation coefficient of the two variables should be less than the individual Cronbach’s alpha reliability coefficient of the constructs themselves. If the two criteria are satisfied, the discriminant validity is established. Another method for assessing discriminant validity is by examining the cross loadings of the indicators (Fornell & Larcker, 1981). Specifically, an indicator’s outer loading on the associated construct should be greater than are all of its loadings on other constructs (i.e., the cross loadings). The presence of cross loadings that exceed the indicator’s outer loadings represents a discriminant validity problem.

The third condition is generally viewed rather liberal in terms of establishing discriminant validity (Hair, Ringle, & Sarstedt, 2011). It is based on the Fornell-Larcker criterion (Fornell & Larcker, 1981). It is also known as the most frequently used method for discriminative construct validity checking (Hair et al., 2014). Therefore, this thesis also applies this approach to test the discriminant validity for all of constructs.

Within the Fornell-Larcker method, the underlying logic is that a construct shares more variance with its associated indicators than with any other constructs. Therefore, the square root of each construct’s AVE should be greater than its highest correlation with any other constructs. In other words, the AVE value of each variable should exceed the squared correlation between this variable itself and any other constructs (Hair et al., 2014, p.105).

Table 49 illustrates the result with respect to AVE and the square correlations between the seven latent constructs, comprising Entrepreneurship Education, Entrepreneurship Experience & Extra-curricular Activity, Role Model, Perceived Support, Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation, and Social Entrepreneurial Intention. With respect to Entrepreneurship Education, this construct itself explains 68.4% variance of its indicators (i.e., AVE=0.684). Moreover, the AVE is greater than the variance that Entrepreneurship Education shares with other constructs such as Entrepreneurship Experience & Extra-curricular Activity (37,8%), Role Model (15,1%), Perceived Support (3%), Social Entrepreneurial Self-Efficacy (23,3%), Social Entrepreneurial Outcome Expectation (4,6%), and Social Entrepreneurial Intention (16,9%). Hence, the discriminant validity for the construct of Entrepreneurship Education is established.

Similarly, the same result is true for the remaining variables. Explicitly, the indicator measures for the constructs themselves containing Entrepreneurship Experience & Extra-curricular Activity, Role Model, Perceived Support, Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation, and Social Entrepreneurial Intention explain the variance of 58.2%, 68.8%, 52.4%, 61.3%, 55.8%, and 80.9%, respectively. However, the variance sharing measures between one construct and another are all less than 40%. For instance, according to table 49, the greatest value of co-variance among constructs is 37.8%, which is the correlation coefficient between Entrepreneurship Education and Entrepreneurship Experience & Extra-curricular Activity.

In summary, discriminant validity is established for all of the latent constructs in this thesis: Entrepreneurship Education (Ed), Entrepreneurship Experience & Extra-curricular Activity (ExEa), Role Model (Rm), Perceived Support (Ps), Social Entrepreneurial Self-Efficacy (Self), Social Entrepreneurial Entrepreneurial Outcome Expectation (OE), and Social Entrepreneurial Intention (SEi).

Table 49. AVE and Variance Sharing Between the Constructs[91]

	Ed	ExEa	Rm	Ps	Self	OE	Ei	AVE
Ed	**1**							**0.684**
ExEa	0.378	**1**						**0.582**
Rm	0.151	0.257	**1**					**0.688**
Ps	0.03	0.033	0.036	**1**				**0.524**
Self	0.233	0.299	0.127	0.03	**1**			**0.613**
OE	0.046	0.016	0.003	0.016	0.114	**1**		**0.558**
SEi	0.169	0.312	0.229	0.028	0.213	0.062	**1**	**0.809**

[91] *Author's own table*

5.5.2.4 Construct Reliability

To evaluate a measurement instrument (i.e., the survey questionnaire in this thesis), validity, and reliability are two fundamental elements. Validity is concerned with the extent to which an instrument measures what it is intended to measure. Reliability addresses the ability of an instrument to measure consistently (Tavakol M et al., 2008). Notably, the reliability of an instrument is closely associated with its validity. An instrument cannot be valid unless it is reliable. However, the reliability of an instrument does not depend on its validity (Nunnally J, 1994, cited in Thorndike, 2016). Therefore, it is possible to objectively measure the reliability of an instrument to ensure that the measurements used in this thesis are reliable and acceptable before testing the hypothesized model.

Here, the reliability of all measurements was checked by the internal consistency measure Cronbach's alpha (Cronbach, 1951). Internal consistency describes the extent to which all of the items in a test measure the same concept or the same construct. Hence, it is connected to the inter-relatedness of the items within the test (Tavakol & Dennick, 2011, p.53). The Cronbach's alpha is an index of reliability for multiple item measures (McKnight et al., 2007, p.22). It is the most suggested measure for calculating the reliability of multi-item scales (Peter, 1979, p.7). The range of the values of Cronbach's alpha is between 0 and 1; values close to 1 express a high degree of reliability (Andrew, Pedersen & McEvoy, 2011, p.202). In general, a high value ensures the highest possible quality of the internal consistency of a factor's indicators. The cut-off value for this reliability measure is controversial in the literature, as shown in table 21 in section 4.2.2.2. However, this thesis uses the threshold of 0.7, which is often applied in books and journals (Field, 2013, p.709).

Table 50 represents the Cronbach's alpha scores for all of latent constructs in the model. They are 0.897 for Entrepreneurship Education, 0.921 for Entrepreneurship Experience & Extra-curricular Activity, 0.875 for Perceived Support, 0.898 for Role Model, 0.882 for Social Entrepreneurial Self-Efficacy, 0.836 for Social Entrepreneurial Outcome Expectation and 0.957 for Social Entrepreneurship Intention. All of these values are greater than the cut-off value of 0.80. Therefore, the scales for all variables are acceptable and reliable for further analysis (Nunnally, 1978).

Construct	Cronbach's alpha
Entrepreneurship Education	.897
Entrepreneurial Experience & Extra-curricular Activity	.921
Perceived Support	.875
Role Model	.898
Social Entrepreneurial Self Efficacy	.882
Social Entrepreneurial Outcome Expectation	.836
Social Entrepreneurial Intention	.957

Table 50. Cronbach's alpha Values of the Final Constructs[92]

[92] *Author's own table*

5.5.3 Final Measurement Model

After EFA and CFA, the seven latent constructs are explored and confirmed for the measurement model of this thesis. The seven constructs are Entrepreneurship Education (Ed), Entrepreneurship Experience & Extra-curricular Activity (ExEa), Role Model (Rm), Perceived Support (Ps), Social Entrepreneurial Self-Efficacy (Self), Social Entrepreneurial Outcome Expectation (OE), and Social Entrepreneurial Intention (SEi). All of these constructs satisfy the reliability and validity criteria.

In more detail, the data come from 46 questions on the five Likert-scale. The construct 'Entrepreneurship Education'' (Ed) is measured by 4 items; 'Entrepreneurship Experience/extra-curricular Activity' (ExEa) is measured by 8 items; 'Role Model' (Rm) is measured by 4 items, 'Perceived Support' (Ps) is measured by 8 items; 'Social Entrepreneurial Outcome Expectation' (OE) is measured by 5 items; 'Social Entrepreneurial Intention' (SEi) is measured by 5 items; and 'Social Entrepreneurial Self-Efficacy' (Self) is measured by 12 items. Particularly, the construct 'Self' which is the 2nd order factor, is constructed from the three 1st order factors named Self1, Self2, and Self3.

The Maximum Likelihood estimation is used for estimating parameters in CFA. Table 51 provides unstandardized (B value) and standardized coefficients (ß value), together with standard error values (SE) for all variables. In addition, figure 27 displays the entire measurement model of the thesis.

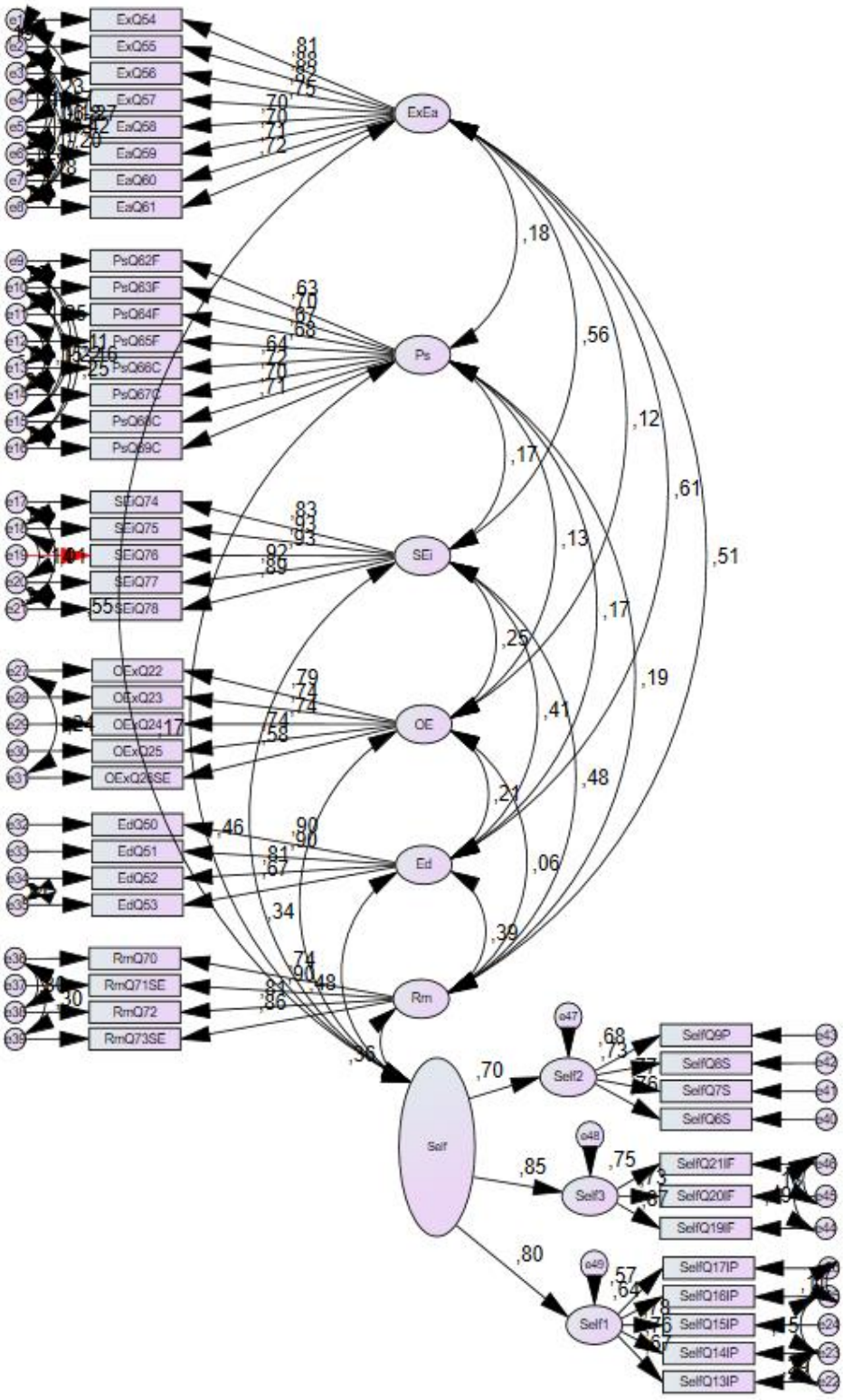
Table 51. Standardized and Unstandardized Coefficients of Variables[93]

Latent Construct	Observed Variable	ß	B	SE
Entrepreneurship Education	Opportunity recognition (EdQ50)	0,904	1	
	Opportunity evaluation (EdQ51)	0,9	0,98	0,031
	Starting a business (EdQ52)	0,814	0,899	0,034
	Coporate Enterprise (EdQ53)	0,667	0,719	0,038
Entrepreneurship Experience/ extra-curricular Activity	Experiences in new business venture start-up (ExQ54)	0,809	1	
	Experiences in new market development (ExQ55)	0,877	1,096	0,043
	Experiences in new product development (ExQ56)	0,819	1,047	0,052
	Experiences in social entrepreneurship (ExQ57)	0,748	1,005	0,052
	Attend to a conference(s) on entrepreneurship (EaQ58)	0,696	0,836	0,049
	Participate in a competition(s) on entrepreneurship (idea, business plan, business model, creating a new product/service etc.) (EaQ59)	0,703	0,877	0,05
	Be a member of entrepreneurship related-clubs (EaQ60)	0,71	0,927	0,053
	Participate in a talk(s) or a forum(s) or an interview(s) with entrepreneurs (EaQ61)	0,722	0,925	0,057
Role Model	I personally know other people who are entrepreneurs (RmQ70)	0,743	1	
	I personally know other people who are social entrepreneurs (RmQ71SE)	0,896	1,166	0,058
	I personally know successful entrepreneurs (RmQ72)	0,812	1,115	0,049
	I personally know successful social entrepreneurs (RmQ73SE)	0,86	1,151	0,063
Perceived Support	Finance support from my closet family (PsQ62F)	0,628	1	
	Finance support from my friends (PsQ63F)	0,696	1,023	0,066
	Finance support from my fellow students (PsQ64F)	0,666	0,966	0,078
	Finance support from other institutions (e.g., funds from government, venture capitalists, banks, business angles) (PsQ65F)	0,684	1,022	0,079
	Networking and Counselling support from my closet family (PsQ66C)	0,644	0,943	0,069
	Networking and Counselling support from my friends (PsQ67C)	0,721	1,015	0,077
	Networking and Counselling support from my fellow students (PsQ68C)	0,695	1,009	0,08
	Networking and Counselling support from other institutions (e.g., funds from government, venture capitalists, banks, business angles) (PsQ69C)	0,71	1,037	0,083
Social Entrepreneurial Outcome Expectation	Financial rewards (e.g., personal wealth, increase personal income) (OExQ22)	0,794	1	
	Independence/Autonomy (e.g., personal freedom, by your own boss) (OExQ23)	0,742	0,917	0,051

	Personal rewards (e.g., public recognition, personal growth, to prove I can do it) (OExQ24)	0,743	0,857	0,048
	Family security (e.g., to secure future for my members, to build a business to pass on) (OExQ25)	0,74	0,883	0,05
	Social impacts (e.g., to address social problems, improve quality of life the whole society, contribute to the sustainable development of society) (OExQ26SE)	0,58	0,725	0,058
Social Entrepreneurial Intention	I am ready to do anything to be an social entrepreneur (SEiQ74)	0,828	1	
	My professional goal is to become an social entrepreneur (SEiQ75)	0,932	1,095	0,031
	I will make every effort to start and run my own social enterprise (SEiQ76)	0,926	1,105	0,038
	I am determined to create a social enterprise in the future (SEiQ77)	0,918	1,123	0,039
	I have the strong intention to start a social enterprise someday (SEiQ78)	0,888	1,154	0,042
Social Entrepreneurial Self-Efficacy	Brainstorm (come up with) ideas for new products/services (SelfQ6S)	0,762	1	
	Identify the need for new products/services (SelfQ7S)	0,772	0,997	0,057
	Design products/services that will satisfy customer as well as social needs and wants (SelfQ8S)	0,734	1,079	0,064
	Determine an adequate price for a new product/service (selfQ9P)	0,684	0,967	0,061
	Get others to identify with and believe in my vision and plans for a new social business (SelfQ13IP)	0,665	1	
	Recruit and hire employees (SelfQ14IP)	0,756	1,145	0,064
	Deal effectively with day-by-day problems and crises (SelfQ15IP)	0,775	1,142	0,077
	Inspire, encourage, and motivate employees (SelfQ16IP)	0,645	0,886	0,07
	Train employees (SelfQ17IP)	0,575	0,831	0,071
	Organize and maintain the financial records of my social business (SelfQ19IF)	0,874	1	
	Manage the financial assets of my social business (SelfQ20IF)	0,728	0,886	0,056
	Read and interpret financial statements (SelfQ21IF)	0,749	0,991	0,071

[93] *Author's own table*

Figure 27. The Measurement Model[94]

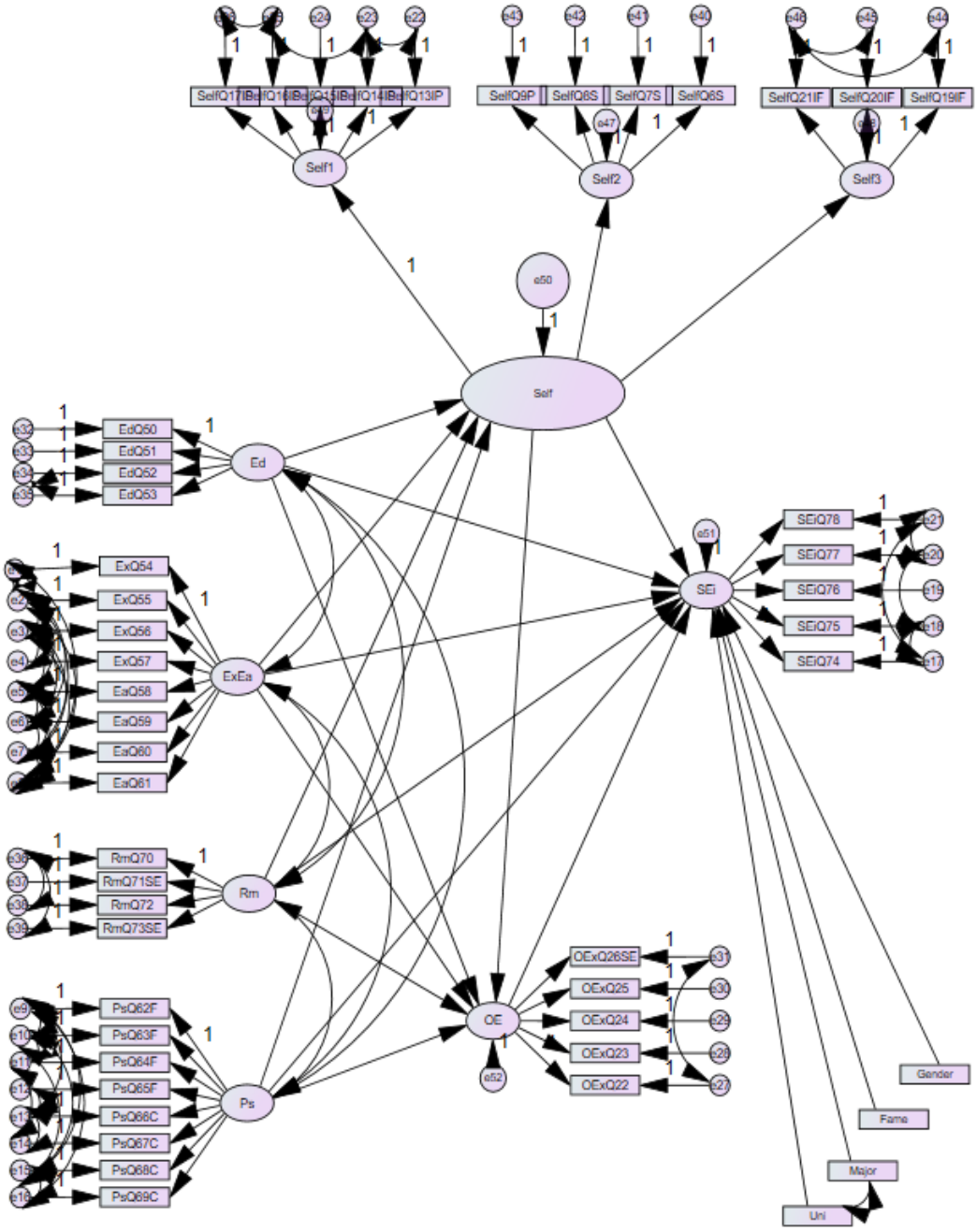


[94] *Author's own figure*

5.6 Structural Model

As mentioned previously (in section 3.4), the framework model contains two levels. At the first level, Social Entrepreneurial Self-Efficacy (Self) have a direct link to Social Entrepreneurial Outcome Expectation (OE). The two cognitive constructs, Self and OE, have direct links to Social Entrepreneurial Intention (SEi). At the second level, all of direct and indirect links concerning contextual factors (i.e., Entrepreneurship Education (Ed), Entrepreneurship Experience / Extra-Curricular Activity (ExEa), Role Model (Rm), and Perceived Support (Ps)) and the three SCCT constructs (i.e., Self, OE, and SEi) are illustrated. Moreover, the four control variables including gender, studying major, university, and business family background are added in the model. Therefore, together with the measurement model which is resulted from CFA (see section 5.5.3), the structural model (figure 28) is established.

Figure 28. The Structural Model[95]



[95] *Author's own figure*

In order to evaluate the structural model before testing all hypothesized paths, the Maximum Likelihood Estimation method is also choosen. Table 52 presents Goodness-Of-Fit indexes (i.e., recommended by Hooper (2008)). The values for Cmin/df, CFI, RMSEA, RMR and NFI are 1.765; .952; .036; .064, and .952, respectively. All of these values are better than the cut-off values (refer to table 45). Therefore, the results indicate that the 'Goodness of Fit' is achieved. In other words, the hypothesized model appears to be a good fit to the data.

Indices	Cmin/df	NFI	RMSEA	RMR	CFI
Cut-off value	<2	>0.9	<0.08	<0.5	>0.95
Value	**1.765**	**0.952**	**0.036**	**0.064**	**0.952**

Table 52. Goodness Index Indices of the Structural Model[96]

[96] *Author's own table*

In addition, table 53 displays the Coefficient of Determination (R-squared) values of the three main SCCT constructs (i.e., Social Entrepreneurial Self-Efficacy (Self), Social Entrepreneurial Outcome Expectation (OE), and Social Entrepreneurial Intention (SEi)). In more detail, in the construct model, 34.2% of the variance of the construct 'Self' is explained by its exogenous constructs containing Entrepreneurship Education (Ed), Entrepreneurship Experience/extra-curricular Activity (ExEa), Role Model (Rm), and Perceived Support (Ps). The five exogenous construct including Ed, ExEa, Rm, Ps, and Self together explain 13.9% of the variance of the endogenous construct OE. Finally, all six latent variables such as Ed, ExEa, Rm, Ps, Self, and OE jointly explain 42.3% of the variance of the construct SEi. Remarkably, all of these three R-squared values are greater than the required cut-off value of 10% (Cohen, 1992; cited in Hair et al., 2014). This result implies the meaningfulness of the testing relationships between all latent variables which will be presented in section 5.7 below.

Construct	R-squared (R^2)
Social Entrepreneurial Self-Efficacy (Self)	**0.342**
Social Entrepreneurial Outcome Expecation (OE)	**0.139**
Social Entrepreneurial Intention	**0.423**

Table 53. R-squared Values of SCCT contructs[97]

[97] *Author's own table*

5.7 Hypothesis Testing Results

5.7.1 Results of Direct Relationships

Table 54 shows the results of testing direct links between all of the latent variables. Some hypotheses are supported and some are not.

First, with respect to Social Entrepreneurial Intention (SEi), table 54 reports that Entrepreneurship Education and Perceived Support do not affect the intention of people to run a social enterprise; therefore, hypotheses H4c and H8c are rejected. In contrast, hypotheses H5+6c, H7c, H1, and H2 are significant, with P-values <.001. In particular, Entrepreneurship Experience & Extra-curricular Activity have a strong relationship with Social Entrepreneurial Intention (H5+6c: β= 0.372, $p<0.001$), with a weight of 0.372. Similarly, there are also direct and positive links between Social Entrepreneurial Intention and Role Model (H7c: β= 0.261, $p<0.001$), Social Entrepreneurial Self-Efficacy (H1: β= 0.425, $p<0.001$), and Social Entrepreneurial Outcome Expectation (H2: β= 0.146, $p<0.001$).

Second, with respect to the direct links to Social Entrepreneurial Self-Efficacy (Self), hypotheses H4a, H5+6a are supported, whereas hypotheses H7a and H8a are rejected. The result of hypothesis H4a (H1a: β=0.224, $p<0.001$) implies a positive and direct relationship between Entrepreneurship Education (Ed) and Social Entrepreneurial Self-Efficacy. Specifically, Entrepreneurship Education can directly explain approximately 22.4% of the Social Entrepreneurial Self-Efficacy. Similarly, Entrepreneurship Experience & Extra-curricular Activity (ExEa) relates positively and directly to Social Entrepreneurial Self-Efficacy (H5+6a: β=0.354, $p<0.001$) and expresses approximately 34.5% of the self-efficacy. In contrast, the direct links from Perceived Support (Ps), Role Model (Rm) to Social Entrepreneurial Self-Efficacy are refused, although they predict a positive influence.

Finally, in terms of Social Entrepreneurial Outcome Expectation (OE), hypotheses H4b, H8b, and H3 are significant. Hypothesis H4b (β=0.213, $p<0.001$) indicates that there is a direct and positive link between Entrepreneurial Education and Social Entrepreneurial Outcome Expectation, with a weight of 0.213. Hypothesis H8b (β= 0.096, $p<0.05$) implies that there is also a direct and positive link between Perceived Support and Social Entrepreneurial Outcome Expectation, with a weight of 0.096.

Hypothesis H3 (β= 0.336, $p<0.001$) shows that Social Entrepreneurial Self-Efficacy has a strong and direct influence on Social Entrepreneurial Outcome Expectation. Social Entrepreneurial Self-Efficacy can explain approximately 34% of the Social Entrepreneurial Outcome Expectation. Nevertheless, no relationship exists between Social Entrepreneurial Outcome Expectation and either Entrepreneurship Experience & Extra-curricular Activity or Role Model because hypotheses H5+6b and H7b are non-significant (see table 54).

Dependent Variable	Hypothesis	Paths	Estimate[1]	S.E.	C.R.
Social Entrepreneurial Intention (SEi)	H4c	Ed---> SEi	0.076[n.s.]	0.067	1.600
	H5+6c	EaEx---> SEi	0.372***	0.084	6.987
	H7c	Rm---> SEi	0.261***	0.076	5.841
	H8c	Ps---> SEi	0.035[n.s.]	0.077	0.934
	H1	Self---> SEi	0.425***	0.140	8.048
	H2	OE---> SEi	0.146***	0.076	3.505
Social Entrepreneurial Self-Efficacy (Self)	H4a	Ed---> Self	0.224***	0.031	3.897
	H5+6a	EaEx---> Self	0.354***	0.038	5.509
	H7a	Rm---> Self	0.083[n.s.]	0.032	1.638
	H8a	Ps---> Self	0.053[n.s.]	0.034	1.200
Social Entrepreneurial Outcome Expectation (OE)	H4b	Ed---> OE	0.213***	0.046	3.549
	H5+6b	EaEx---> OE	0.000[n.s.]	0.053	-0.004
	H7b	Rm--->OE	-0.041[n.s.]	0.050	-0.755
	H8b	Ps--->OE	0.096*	0.054	2.002
	H3	Self--->OE	0.336***	0.079	6.250

Significance Level: * p< 0.05 / ** p< 0.01 / *** p<0.001
Note: n.s.= not significant / [1] standardized estimates

Table 54. Results of Direct Effects[98]

[98] *Author's own table*

5.7.2 Results of Indirect Relationships

5.7.2.1 Social Entrepreneurial Self-Efficacy as a Mediator between Entrepreneurship Education and Social Entrepreneurial Intention

The results (see figure 29) show that Entrepreneurship Education (Ed) has a direct effect on Social Entrepreneurial Self-Efficacy (Self) (β= 0.221, $p<0.01$) but does not have a direct effect on Social Entrepreneurial Intention (SEi) (β= 0.032, n.s.). This finding is similar to the result in the structural model. Additionally, Social Entrepreneurial Self-Efficacy shows a direct and significant effect on Social Entrepreneurial Intention (β= 0.193, $p<0.01$).

For the indirect effect between Entrepreneurship Education (i.e., independent variable) and Social Entrepreneurial Intention (i.e., dependent variable) through the mediator (i.e., Social Entrepreneurial Self-Efficacy), the bootstrap confidence interval (between 'lower level for confidence interval – LLCI' and 'upper level for confidence interval – ULCI') is not equal to zero (LLCI=0.014; ULCI=0.093). Therefore, it can be concluded that the indirect effect in hypothesis H4ac is significant (Preacher & Hayes, 2004; 2008) and that the '*indirect-only mediation*' effect is established (Zhao et al., 2010). Specifically, according to table 55, the total effect is 0.075, and the indirect effect is 0.043. Therefore, VAF (i.e., 0.043/0.075) is 57.33%, which means that 57.33% of Entrepreneurship Education's effect on Social Entrepreneurial Intention is explained via the mediator Social Entrepreneurial Self-Efficacy.

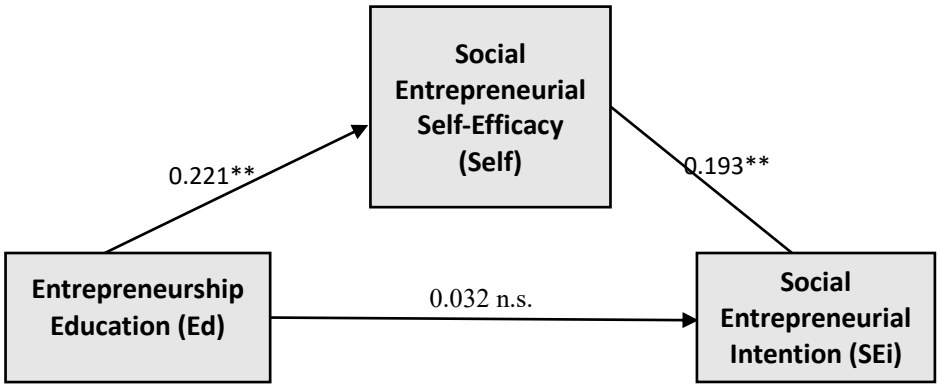


Figure 29. Mediation Model Ed-->Self-->SEi[99]

Paths	Estimates	Significant
Entrepreneurship Education--> Entrepreneurial Self-efficacy	**0,221**	**
Entrepreneurial Self-Efficacy--> Social entrepreneurial intention	**0,193**	**
Entrepreneurship Education--> Social Entrepreneurial Intention	**0,032**	**n.s.**
Direct effect	**0,032**	**n.s.**
Indirect effect	**0,043**	**YES**
Total effect	**0,075**	**
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 55. Result of the Mediation Model Ed-->Self-->SEi[100]

[99] *Author's own figure*

[100] *Author's own table*

5.7.2.2 Social Entrepreneurial Self-Efficacy as a Mediator between Entrepreneurship Experience & Extra-curricular Activity and Social Entrepreneurial Intention

The next model with Social Entrepreneurial Intention (SEi) as the dependent variable, the Entrepreneurship Experience & Extra-curricular Activity (ExEa) as the independent variable and Social Entrepreneurial Self-Efficacy (Self) as the mediator was analyzed (i.e., hypothesis H5+6ac). The results (see figure 30) illustrate that all of the direct and indirect effects in the model are statistically significant. In particular, Entrepreneurship Experience & Extra-curricular Activity has a direct and positive effect on Social Entrepreneurial Self-Efficacy (β= 0.362, $p<0.01$) and a direct and positive effect on Social Entrepreneurial Intention (β= 0.304, $p<0.01$). Social Entrepreneurial Self-Efficacy shows a direct and significant effect on Social Entrepreneurial Intention (β= 0.193, $p<0.01$). In analysis of the indirect effect, the bootstrap confidence interval does not include zero (LLCI=0.03; ULCI=0.155). Hence, it attests to the significance of the indirect effect (Preacher & Hayes, 2004; 2008). Because both direct and indirect effects exist and because these effects point in the same direction (i.e., all effects are positive), the '*complementary mediation*' effect is established (Zhao et al., 2010). Moreover, according to table 54, the total effect is 0.374, and the indirect effect is 0.07. The VAF is 18.72% (i.e., 0.07/0.374), which implies that 18.72% of the Entrepreneurship Experience & Extra-curricular Activity's effect on Social Entrepreneurial Intention is explained via the mediator Social Entrepreneurial Self-Efficacy.

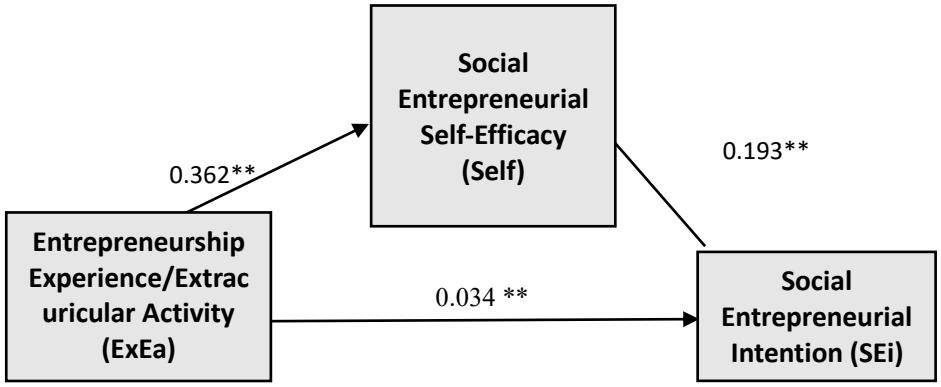


Figure 30. Mediation Model ExEa-->Self-->SEi[101]

Paths	Estimates	Significant
Entrepreneurship experience/extra-curricular activity--> Entrepreneurial Self-efficacy	**0,362**	**
Entrepreneurial Self-Efficacy--> Social entrepreneurial intention	**0,193**	**
Entrepreneurship experience/extra-curricular activity--> Social Entrepreneurial Intention	**0,304**	**
Direct effect	**0,304**	**
Indirect effect	**0,07**	**YES(***)**
Total effect	**0,374**	***
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 56. Result of the Mediation model ExEa-->Self-->SEi[102]

[101] *Author's own figure*

[102] *Author's own table*

5.7.2.3 Social Entrepreneurial Self-Efficacy as a Mediator between Role Model and Social Entrepreneurial Intention

Hypothesis H7ac proposing that Social Entrepreneurial Self-Efficacy mediates the effect from Role Model to Social Entrepreneurial Intention is tested. The results (see figure 31) provide evidence of the significance of the direct link between Role Model and Social Entrepreneurial Intention (β= 0.246, $p<0.01$), and the direct and significant effect between Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Intention (β= 0.193, $p<0.01$). However, there is no significant, direct effect from Role Model to Social Entrepreneurial Self-Efficacy (β= 0.078, n.s.). The bootstrap confidence interval of the mediation analysis process does include zero (LLCI=0,000; ULCI=0,063), which implies the non-significance of the indirect effect (Preacher & Hayes, 2004; 2008). This argument is similar to that of Zhao et al. (2010), who state that there is a 'direct-only' link in this model. In other words, Social Entrepreneurial Self-Efficacy is not the mediator for the relationship between Role Model and Social Entrepreneurial Intention (see table 57).

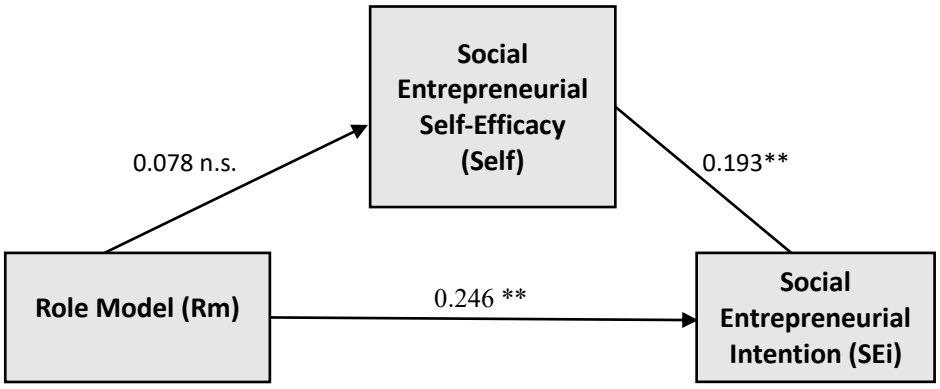


Figure 31. Mediation Model Rm-->Self-->SEi[103]

Paths	Estimates	Significant
Role model--> Entrepreneurial Self-efficacy	**0,078**	**n.s.**
Entrepreneurial Self-Efficacy--> Social entrepreneurial intention	**0,193**	**
Role model--> Social Entrepreneurial Intention	**0,246**	**
Direct effect	**0,246**	**
Indirect effect	**0,015**	**NO(n.s.)**
Total effect	**0,261**	**
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 57. Result of the Mediation model Rm-->Self-->SEi[104]

[103] *Author's own figure*

[104] *Author's own table*

5.7.2.4 Social Entrepreneurial Self-Efficacy as a Mediator between Perceived Support and Social Entrepreneurial Intention

Figure 32 illustrates the mediation effect (i.e., hypothesis 8ac), in which Social Entrepreneurial Self-Efficacy (Self) is a mediator for the effect from Perceived Support (Ps) to Social Entrepreneurial Intention (SEi). The result shows that there is only a direct, significant relationship between Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Intention (β= 0.193, $p<0.01$). The two other relationships, such as Perceived Support and Social Entrepreneurial Self-Efficacy (β= 0.053, n.s.) and Perceived Support and Social Entrepreneurial Intention (β= 0.024, n.s.), are not significant. Therefore, according to Zhao et al. (2010), this case is '*no-effect*' and '*non-mediation*' (table 58). Social Entrepreneurial Self-Efficacy does not mediate the relationship between Perceived Support and Social Entrepreneurial Intention.

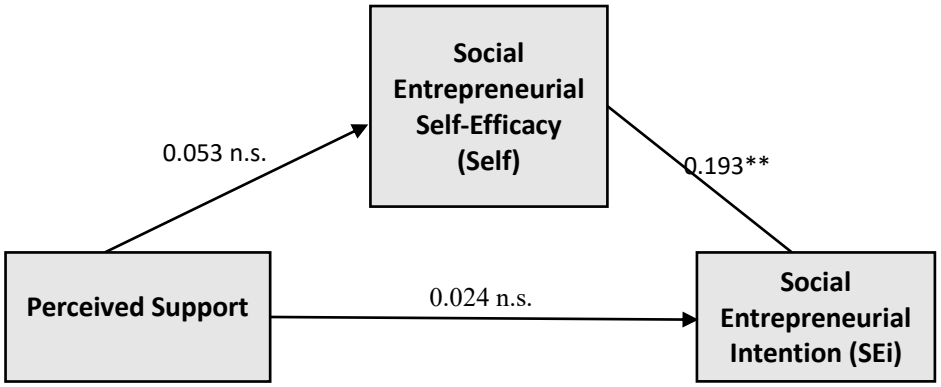


Figure 32. Mediation Model Ps-->Self-->SEi[105]

Paths	Estimates	Significant
Perceived support--> Entrepreneurial Self-efficacy	**0,053**	**n.s.**
Entrepreneurial Self-Efficacy--> Social entrepreneurial intention	**0,193**	**
Perceived support--> Social Entrepreneurial Intention	**0,024**	**n.s.**
Direct effect	**0,024**	**n.s.**
Indirect effect	**0,01**	**NO(n.s.)**
Total effect	**0,034**	**n.s.**
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 58. Result of the Mediation model Ps-->Self-->SEi[106]

[105] *Author's own figure*

[106] *Author's own table*

5.7.2.5 Social Entrepreneurial Outcome Expectation as a Mediator between Entrepreneurship Education and Social Entrepreneurial Intention

Figure 33 is demonstrates the mediation model in which Social Entrepreneurial Intention (SEi) is a dependent variable, Entrepreneurship Education (Ed) is an independent variable, and Social Entrepreneurial Outcome Expectation (OE) is a mediator. It is a metaphor for hypothesis H4bc. It is also analyzed by the bootstrapping method. The results in figure 31 illustrate that the Entrepreneurship Education has a direct and significantly positive effect on Social Entrepreneurial Outcome Expectation (β= 0.215, $p<0.01$) but has no statistically significant effect on Social Entrepreneurial Intention (β= 0.04, n.s.). In addition, Social Entrepreneurial Outcome Expectation shows a direct and significantly positive effect on Social Entrepreneurial Intention (β= 0.179, $p<0.01$). In the analysis of the indirect effect, the bootstrap confidence interval does not include zero (LLCI=0,007; ULCI=0,060). Therefore, the indirect effect is significant (Preacher & Hayes, 2004; 2008), and the '*indirect-only mediation'* effect is established (Zhao et al., 2010). Moreover, according to table 59, the total effect is 0.078, and the indirect effect is 0.038. Therefore, VAF is 48.72% (i.e., 0.038/0.078) which implies that 48.72% of the Entrepreneurship Education effect on Social Entrepreneurial Intention is explained via the mediator labelled Social Entrepreneurial Outcome Expectation.

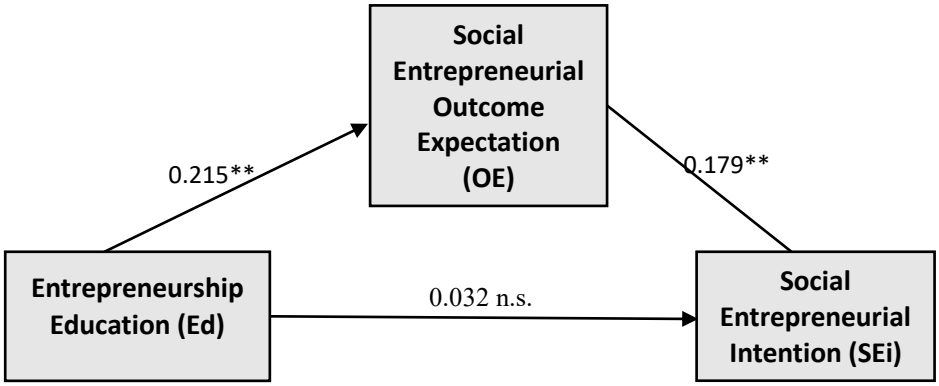


Figure 33. Mediation Model Ed-->OE-->SEi[107]

Paths	Estimates	Significant
Entrepreneurship Education--> Outcome Expectation	**0,215**	**
Outcome Expectation--> Social entrepreneurial intention	**0,179**	**
Entrepreneurship Education--> Social Entrepreneurial Intention	**0,04**	**n.s.**
Direct effect	**0,04**	**n.s.**
Indirect effect	**0,038**	**YES(***)**
Total effect	**0,078**	**n.s.**
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 59. Result of the Mediation model Ed->OE-->SEi[108]

[107] *Author's own figure*

[108] *Author's own table*

5.7.2.6 Social Entrepreneurial Outcome Expectation as a Mediator between Entrepreneurship Experience & Extra-curricular Activity and Social Entrepreneurial Intention

Figure 34 shows the testing report of hypothesis 5+6bc. The result is similar to that of hypothesis H7ac (section 5.2.8.3.3), describing how both Entrepreneurship Experience & Extra-curricular Activity (ExEa) and Social Entrepreneurial Outcome Expectation OE) have a direct and positive effect on Social Entrepreneurial Intention (SEi), with a significance level less than 0.01 and estimated values of 0.37 and 0.179, respectively. However, the relationship between Entrepreneurship Experience & Extra-curricular Activity and Social Entrepreneurial Outcome Expectation is not significant (β= -0.004, n.s.). For the indirect effect between Entrepreneurship Experience & Extra-curricular Activity (i.e., independent variable) and Social Entrepreneurial Intention (i.e., dependent variable) through the mediator (i.e., Social Entrepreneurial Outcome Expectation), the bootstrap confidence interval does include zero (LLCI=-0,074; ULCI=0,000). Therefore, the indirect effect (see table 60) is not significant (Preacher & Hayes, 2004, 2008) and the '*direct-only nonmediation*' effect exists (Zhao et al., 2010).

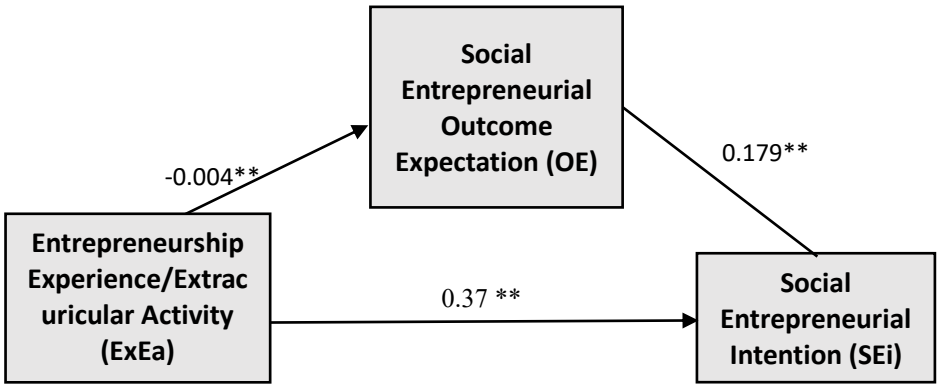


Figure 34. Mediation Model ExEa-->OE-->SEi[109]

Paths	Estimates	Significant
Entrepreneurship experience/extra-curricular activity--> Outcome Expectation	-0,004	n.s.
Outcome Expectation--> Social entrepreneurial intention	0,179	**
Entrepreneurship experience/extra-curricular activity--> Social Entrepreneurial Intention	0,37	**
Direct effect	0,37	**
Indirect effect	-0,001	NO(n.s.)
Total effect	0,369	**
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 60. Result of the Mediation model EaEx-->OE-->SEi[110]

[109] *Author's own figure*

[110] *Author's own table*

5.7.2.7 Social Entrepreneurial Outcome Expectation as a Mediator between Role Model and Social Entrepreneurial Intention

Hypothesis H7bc proposing Entrepreneurial Outcome Expectation (OE) mediates the effect from Role Model (Rm) to Social Entrepreneurial Intention (SEi) is tested. The results (see figure 35) present evidence similar to that obtained for hypotheses H5+6bc concerning Entrepreneurship Experience & Extra-curricular Activity (section 5.6.2.6). Specifically, the direct link between Role Model and Social Entrepreneurial Intentionis significant (β= 0.269, $p<0.01$), and there is a direct, significant effect between Social Entrepreneurial Outcome Expectation and Social Entrepreneurial Intention (β= 0.179, $p<0.01$). Nevertheless, there is no significant direct effect from Role Model to Social Entrepreneurial Outcome Expectation (β= -0,041, n.s.). The bootstrap confidence interval of the mediation analysis process does include zero (LLCI=-0,043; ULCI=0,000), which implies a non-significant, indirect effect (Preacher & Hayes, 2004; 2008). This effect is similar to the argument from Zhao et al. (2010), who state that there is a '*direct-only non-mediation*' link in this model. In other words, Entrepreneurial Outcome Expectation is not the mediator between Role Model and Social Entrepreneurial Intention (see table 61).

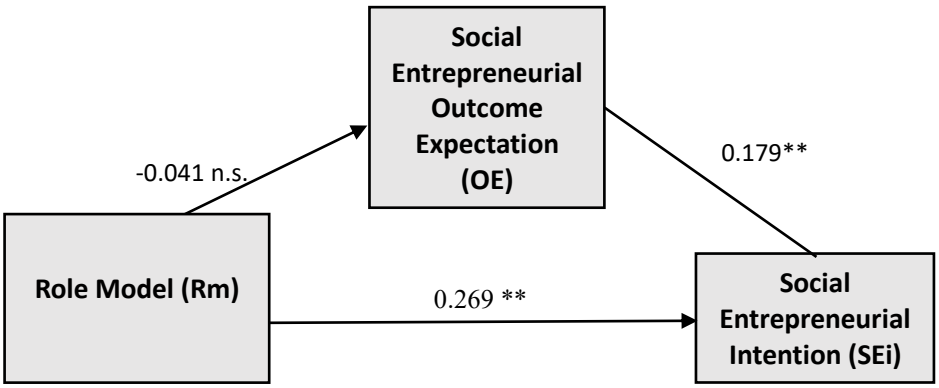


Figure 35. Mediation Model Rm-->OE-->SEi[111]

Paths	Estimates	Significant
Role model--> Outcome Expectation	-0,041	n.s.
Outcome Expectaion--> Social entrepreneurial intention	0,179	**
Role model--> Social Entrepreneurial Intention	0,269	**
Direct effect	0,269	**
Indirect effect	-0,007	NO(n.s.)
Total effect	0,262	**
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 61. Result of the Mediation model Rm-->OE-->SEi [112]

[111] *Author's own figure*

[112] *Author's own table*

5.7.2.8 Social Entrepreneurial Outcome Expectation as a Mediator between Perceived Support and Social Entrepreneurial Intention

Figure 36 demonstrates the testing result of hypothesis H8bc, in which Social Entrepreneurial Outcome Expectation (OE) is supposed to be a mediator for the effect from Perceived Support (Ps) to Social Entrepreneurial Intention (SEi). In this thesis, a direct effect between Perceived Support and Social Entrepreneurial Outcome Expectation ($\beta 3 = 0.096$, $p<0.05$) is found. Similarly, the relationship between Social Entrepreneurial Outcome Expectation and Social Entrepreneurial Intention is significant and positive ($\beta 3 = 0.179$, $p<0.01$). Nonetheless, the direct link between Perceived Support and Social Entrepreneurial Intention is not significant ($\beta 3 = 0.018$, n.s.). In terms of indirect effect, the bootstrap confidence interval does not include zero (LLCI=0,003; ULCI=0,060). Therefore, the indirect effect is significant (Preacher & Hayes, 2004; 2008), and the '*only-indirect mediation'* effect is established (Zhao et al., 2010). Specifically, table 60 illustrates that the total effect is 0.035 and that the indirect effect is 0.017. The VAF (i.e., 0.017/0.035) is 48.57 %. In other words, the mediator 'Social Entrepreneurial Outcome Expectation' can explain 48.57% of the relationship between Perceived Support and Social Entrepreneurial Intention.

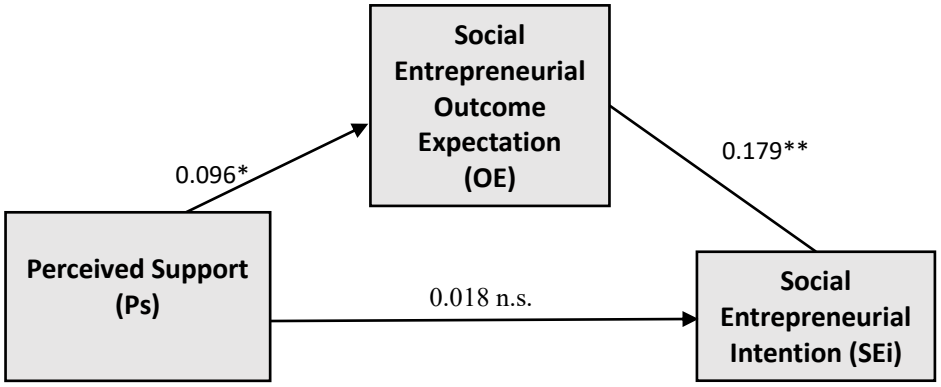


Figure 36. Mediation Model Ps-->OE-->SEi[113]

Paths	Estimates	Significant
Perceived support--> Outcome Expectation	**0,096**	*
Outcome Expectation--> Social entrepreneurial intention	**0,179**	**
Perceived support--> Social Entrepreneurial Intention	**0,018**	**n.s.**
Direct effect	**0,018**	**n.s.**
Indirect effect	**0,017**	**YES(*)**
Total effect	**0,035**	**n.s.**
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 62. Result of the Mediation model Ps-->OE-->SEi[114]

[113] *Author's own figure*

[114] *Author's own table*

5.7.3 Summary of the Hypothesis Testing Results

Figure 37 represents the summary of direct links in this thesis. Overall, there are two direct effects on Social Entrepreneurial Self-Efficacy from Entrepreneurship Education and Entrepreneurship Experience & Extra-curricular Activity; three direct effects on Social Entrepreneurial Outcome Expectation from Social Entrepreneurial Self-Efficacy, Perceived Support, and Entrepreneurship Education; and four direct relationships between Social Entrepreneurial Intention and Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation, Role Model, and Entrepreneurship Experience & Extra-curricular Activity. Remarkably, the classical theory SCCT is supported in this thesis with the statistically significant hypotheses H1, H2, and H3. In other words, two cognitive constructs, Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Outcome Expectation, directly influence Social Entrepreneurial Intention. Moreover, these two variables themselves are strongly correlated, as Social Entrepreneurial Self-Efficacy has a direct and positive link to Social Entrepreneurial Outcome Expectation with a weight of 0.336.

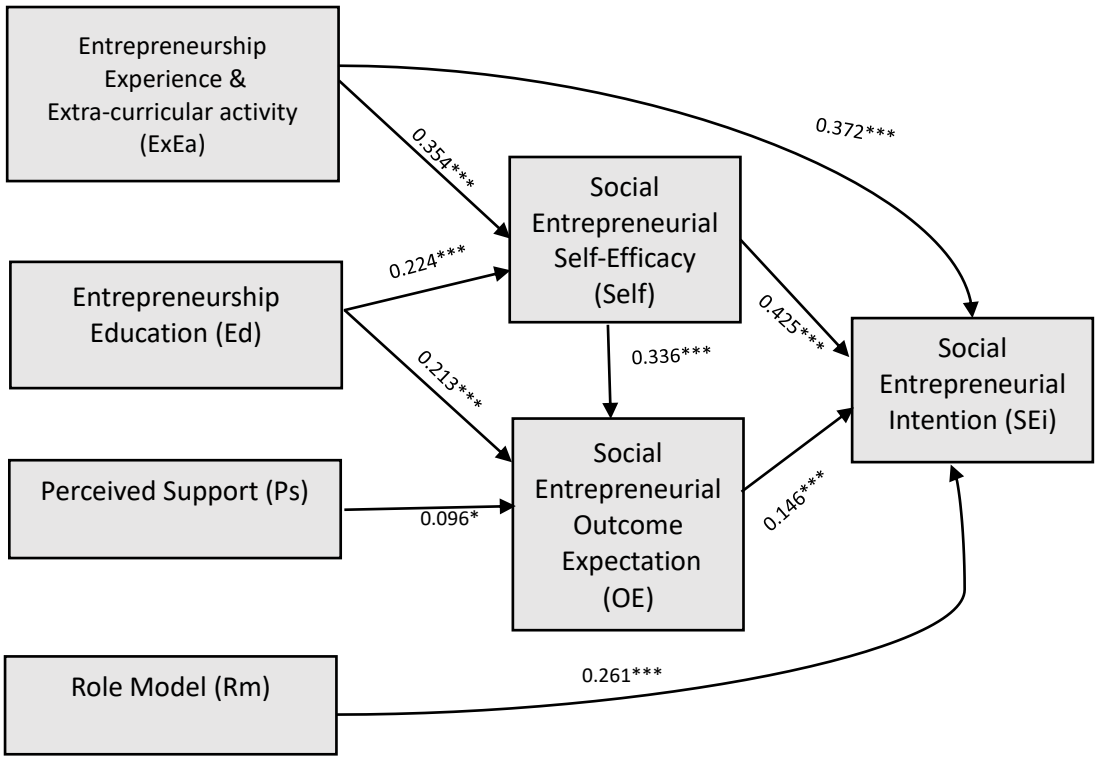


Figure 37. Summary Result of Direct Effects among Latent Variables[115]

With respect to mediation, this thesis uses the bootstrap test (Preacher & Hayes, 2004, 2008) and follows the suggestion from Zhao, Lynch, & Chen (2010) concerning the significance of the indirect effects. Table 61 illustrates the summary of all mediation effects existing in the thesis.

According to table 63, Social Entrepreneurial Self-Efficacy (Self) mediates the relationship between Entrepreneurship Education (Ed), Entrepreneurship Experience & Extra-curricular Activity (ExEa), and Social Entrepreneurial Intention (SEi). However, it does not mediate the links between Role Model (Rm), Perceived Support (Ps), and Social Entrepreneurial Intention (SEi). Concerning Social Entrepreneurial Outcome Expectation (OE), it is the mediator for effects from Entrepreneurship Education as well as Perceived Support to Social Entrepreneurial Intention. In contrast, it is not the mediator of the relationships between Entrepreneurship Experience & Extra-curricular Activity or Role Model, Social Entrepreneurial Self-Efficacy, and Social Entrepreneurial Intention.

Paths	Estimate	Significant
Entrepreneurial Self Efficacy (Self) as a mediator		
Ed-->Self-->SEi	0,043	YES (**)
ExEa---> Self--> SEi	0,07	YES (***)
Rm-->Self--> SEi	0,015	NO (n.s)
Ps-->Self-->Sei	0,01	NO (n.s)
Outcome expectation as a mediator		
Ed-->OE-->SEi	0,038	YES(***)
ExEa---> OE--> SEi	-0,001	NO (n.s)
Rm-->OE--> SEi	-0,007	NO (n.s)
Ps-->OE-->Sei	0,017	YES(*)
Significance level: *p<0.05 / **p<0.01 / ***p<0.001 Note: n.s.=not significant		

Table 63. Summary Results of Indirect Effects among Latent Variables[116]

[115] *Author's own figure*

[116] *Author's own table*

Chapter 6. SUMMARY, CONCLUSION AND OUTLOOK

This chapter concludes with a brief digest of the entire thesis, an overview of its findings (section 6.1), theoretical contribution and practical implications (section 6.2), limitations and recommendations for future research (section 6.3).

6.1 Summary

Social entrepreneurship is a form of entrepreneurship that marries social mission with a competitive value proposition. Specifically, it is a process that includes three activities. The first is "the identification of a specific social problem and a specific solution (or a set of solutions) to address the problem". The second is "the evaluation of the social impact, the business model, and the sustainability of a venture". The last is "the creation of a social mission-oriented for-profit or a business-oriented non-profit entity that pursues the double (or triple) bottom line" (Robinson, 2006, p.95). Notably, social entrepreneurship fosters a more equitable society by addressing social issues and trying to achieve ongoing sustainable effect through a social mission rather than purely profit-maximization. Social entrepreneurship should be considered a positive force and a change agent providing leading-edge innovation to unmet social needs.

According to Krueger (2003), the growth of entrepreneurship depends on both the quality and quantity of entrepreneurs. The more entrepreneurial thinking increases, the more entrepreneurs we have in a country. This issue relates closely to a question that has been considered for many decades: "Why do some people become entrepreneurs whereas others do not" (Shane & Venkataraman, 2000). In addition, intention, the first step of entrepreneurship, should be examined (Lee. S.H., & Wong, 2004) as it is the single best predictor of planned behaviors (Ajzen, 1991). As long as a person possesses entrepreneurial intention, he or she is most likely to demonstrate entrepreneurial behavior (Ajzen, 1991; Shaver & Scott, 1991; Krueger & Carsrud, 1993). Therefore, studying entrepreneurial intention is the main target of this thesis.

In the specific context of social entrepreneurship, publications and empirical studies in intention have been undertaken (Ernst, 2011, p.16). Only few studies can be found, e.g., Mair & Noboa (2003); Nga & Shamuganathan (2010); Enrst (2011); İrengün & Arıkboğa (2015); & Tiwari et al. (2017). Nevertheless, neither Nga & Shamuganathan (2010) nor İrengün & Arıkboğa (2015) does not have any contributes to entrepreneurial

intention literature. Rather than intentions, these authors mention relationships between the Five Big Personalities and social vision, sustainability, social network innovation and financial returns. The three others (i.e., Mair & Noboa, 2003; Ernst, 2011; Tiwari et al., 2017) formulate their models based on the Theory of Planned Behaviour (Ajzen, 1991) initially. However, the results from their empirical data are controversial. The findings are different from one to another. Thus, the dissertation pursues two objectives: (1) develop a comprehensive model for Social Entrepreneurial Intentions in general, and then (2) test the model by conducting an empirical study in particular. Based on these objectives, the two below research questions guiding the thesis are (1) what factors influence the intention of a person to become a social entrepreneur, and (2) what relationships exist among these factors.

In order to answer these two research questions, the purposeful research design, which is the "two-stage design comprising an exploratory study and a formal study", is used (Cooper & Schindler, 2008, p.150) in the thesis. The first stage – the literature review – is based on a comprehensive range of textbooks and articles published in leading academic journals and conference proceedings in different disciplines such as entrepreneurship, social entrepreneurship, entrepreneurship education, management, social psychology, and social economics. In particular, Entrepreneurship Theory and Practice Journal, Strategic Entrepreneurship Journal, Journal of Business Venturing, Journal of Business Venturing, The Cognitive Psychology of Entrepreneurship, The Journal of International Social Research, International Entrepreneurship and Management Journal, Developmental Psychology, Applied Psychology, The Journal of Applied Behavioral Science, Enterprise and Innovation Management Studies, Journal of Business Ethics, and Journal of World Business are used for references. Consequently, the Social Cognitive Career Theory (SCCT, Lent, et al., 1994) is chosen as the theoretical background. The idea of this theory is that "people act on their judgments of what they can do" (i.e., self-efficacy) and "on their beliefs about the likely effects of various actions" (i.e., outcome expectation) (Bandura, 1986, p.231). People are more likely to pursue an occupation in which they believe they have the necessary skills and abilities (self-efficacy) and have confidence in the positive outcomes that they will obtain (desired outcome-expectation) such as a sound income and a feeling of accomplishment (Lent et al., 1994; Fouad & Smith, 1996; Lopez et al., 1997). Moreover, contextual factors, such as Entrepreneurship Education, Entrepreneurship Experience, Entrepreneurship Extra-

curricular Activity, Role model, and Perceived Support, are considered antecedents when examining the relationships among these three SCCT constructs (e.g., Sesen, H., 2013; Zhao, H. et al., 2005; Linan, F., 2008; Nguyen, 2016).

The second step – the empirical investigation (i.e., 'formal study') – is undertaken using the quantitative approach, conducting surveys in order to yield representative and broadly generalizable information about a proportion of the participants (Mouton, 2008, p.152). The questionnaire is adapted and developed based on the literature. However, the 'back-translation method' (Brislin, 1980) is used to translate questions from English into Vietnamese understandably and interpretably. In addition, the pretest (Churchill Jr, 1979) is run with the aim of having the most reliable and valid questionnaire for the final study. Consequently, the final questionnaire for the thesis contains fifty one questions, which are designed in five blocks. The first block includes five questions on the personal information of the respondent. The second block comprises twelve questions for measuring Social Entrepreneurial Self-Efficacy. The third block encompasses five questions for measuring Social Entrepreneurial Outcome Expectation. The fourth block embodies four items for Entrepreneurship Education, four items for Entrepreneurship Experience, four items for Entrepreneurship Extra-curricular Activity, eight pieces for Perceived Support, and four items for Role Model. The fifth block involves five questions for measuring Social Entrepreneurial Intention. Additionally, a brief introduction to what is a social enterprise, to the difference between social enterprises and business firms, and to a typical example of a social enterprise is added to help the participants understand the overview of the topic before participating seriously in the survey.

The final survey was implemented randomly in June and July 2017 in all three cities, Hanoi, Da Nang, and Ho Chi Minh, Vietnam with the target group of last-year students. The data were collected from 600 participants by the face-to-face approach. Within this sample, 52.5% are male, and the remaining 47.5% are female. Most are studying Economics/Business management (49.2%) and Engineering/Technology (28.3%). The remainder, 22.5%, study other majors such as agriculture, environment, and tourism. In addition, approximately two-thirds of the sample (62.2%) answer that their family members do not run any businesses; only one-third (37.8%) of the sample have a family business.

For the data analysis, Exploratory Factor Analysis (EFA), as well as Confirmation Factor Analysis (CFA) are run. EFA is used to discover the number of items influencing variables and to analyze which items “go together” (DeCoster, 1998). CFA is applied to re-confirm the convergent validity and discriminant reliability of the constructs together with quantifying the ‘goodness of fit’ of the structure model before testing all of the proposed hypotheses.

The results are impressive. The items measuring Entrepreneurship Experience and those measuring Entrepreneurship Extra-curricular Activity are combined into one factor (i.e., so-called Entrepreneurship Experience & Extra-curricular Activity (ExEa)), which explains 64.45% of the variance. The items measuring the latent variable Social Entrepreneurial Self-Efficacy are combined into three factors that together explain 66.14% of the variance. However, to satisfy the discriminant validity, these three factors are joined again into a single latent variable as Self. For the remaining items, the solution is that every latent variable, i.e., Entrepreneurship Education, Role Model, Perceived Support, Social Entrepreneurial Outcome Expectation, and Social Entrepreneurial Intention, is extracted into one factor with explained variances of 76.64%, 76.65%, 65.92%, 60.71%, and 85.39%, respectively. Moreover, the convergent validity is established, as all factor loading values of all items are greater than 0.5, and AVE is greater than 0.5 (Hair et al., 2014, p.103). The discriminant validity is verified because CR (composite reliability) is much greater than 0.6 (Hair et al., 2006), and the square root of each construct’s AVE surpasses its highest squared correlation with any other construct (Hair et al., 2014, p.105). The scales are highly reliable and suitable for further analysis because the Cronbac’s alpha scores are all greater than 0.8 (Nunnally, 1978**)**. In detail, Cronbach’s alpha values for Entrepreneurship Education, Entrepreneurship Experience & Extra-curriculum Activity, Perceived Support, Role Model, Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation, and Social Entrepreneurship Intention are 0.897, 0.921, 0.875, 0.898, 0.882, 0.836, and 0.957, respectively. Finally, the goodness-of-fit indices (i.e., Cmin/df =1.575; CFI=0.970; RMSEA=0.031; RMR=0.057; and NFI=0.922) are better than the cutoff values (see suggestion from Hooper et al., 2008), thus revealing the good-fit model for testing the hypotheses.

Concerning the first three SCCT-based hypotheses (i.e., H1, H2, and H3), this thesis is the first study to investigate the relationship between Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation, and Social Entrepreneurial Intention. The results (see table 52) were supportive of the SCCT theory, as both Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Outcome Expectation have significant, direct effects on Social Entrepreneurial Intention (H1: $\beta = 0.425$, $p<0.001$, H2: $\beta = 0.146$, $p<0.001$) and Social Entrepreneurial Self-Efficacy is statistically correlated with Social Entrepreneurial Outcome Expectation (H3: $\beta = 0.336$, $p<0.001$). Remarkably, all of these effects are positive. In other words, if people believe more in their ability and capacity (i.e., Self-Efficacy) in entrepreneurship and the desired outcome expectation of social entrepreneurship, they will be more likely intent on running a social enterprise.

With respect to hypotheses with contextual variables, the results indicated some supportive hypotheses (i.e., H4a, H4b, H4ac, H4bc, H5+6a, H5+6c, H5+6ac, H7c, H8b, and H8bc) and some rejected hypotheses (i.e., H4c, H5+6b, H5+6bc, H7a, H7b, H7ac, H7bc, H8a, H8c, and H8ac). For Entrepreneurship Education (Ed), the systematic review by Pittaway and Coper (2007) concludes that Entrepreneurship Education has an impact on students' intentions toward entrepreneurship. However, this thesis shows a contrary result. Entrepreneurship Education has no direct influence on Social Entrepreneurial Intention (H4c: $\beta=0{,}076^{n.s.}$). This finding, to some extent, supports the opinion of Dickson et al. (2008) that the relationship between entrepreneurship education and entrepreneurial intention is "not yet definitely proven" (Dickson et al., p. 250). Entrepreneurship Education nevertheless has directly positive links with Social Entrepreneurial Self-Efficacy (H4a: $\beta=0.224$, $p<0.001$) and Social Entrepreneurial Outcome-Expectation (H4b: $\beta=0.213$, $p<0.001$). Furthermore, through the mediations of Social Entrepreneurial Self-Efficacy & Social Entrepreneurial Outcome Expectation, Entrepreneurial Education has indirect effects on Social Entrepreneurial Intention (H4ac: $\beta=0.043$, $p<0.001$; and H4bc: $\beta=0.038$, $p<0.001$). This point is consistent with many previous studies, such as Zhao, Seibert, & Hills (2005); Oosterbeek, van Praag, & IJsselstein (2008); and Lucas & Cooper (2004). The more knowledge and skills people obtain from education, the higher is their belief in their ability and desired expectation, leading people to be more likely to engage in social entrepreneurship.

With respect to Entrepreneurship Experience (Ex) and Entrepreneurship Extra-curricular Activity (Ea), as discussed previously, these two factors were joined into one variable: Entrepreneurship Experience & Extra-curricular Activity (ExEa). Therefore, all hypotheses H5* and H6* were combined into hypothesis H5+6*. The results (see table 52) illustrate that Entrepreneurship Experience & Extra-curricular Activity does not affect Social Entrepreneurial Outcome Expectation (H5+6b: β=0.000, n.s.) and that Social Entrepreneurial Outcome Expectation does not mediate the relationship between Entrepreneurship Experience & Extra-curricular Activity and Social Entrepreneurial Intention (H5+6bc: β= -0.001, n.s.). However, Entrepreneurship Experience & Extra-curricular Activity shows direct links to Social Entrepreneurial Self-Efficacy (H5+6a: β=0.354, p<0.001) and Social Entrepreneurial Intention (H5+6c: β=0.372, p<0.001). Social Entrepreneurial Self-Efficacy does mediate the relationship between Entrepreneurship Experience & Extra-curricular Activity and Social Entrepreneurial Intention (H5+6ac: β=0.070, p<0.001). These findings are in favor of previous works, such as those by Boy & Vozikis (1994); Zhao, Seibert, and Hills (2005); and Nguyen (2016). Extracurricular activities and experiences not only enhance learning and inspire and encourage entrepreneurial interest but also develop enterprising skills and knowledge, either as a means to enhance employability or as a method of gaining relevant abilities to facilitate future business creation (Edwards, 2001).

There are no effects of Role Model on Social Entrepreneurial Self-Efficacy (H7a: β = 0.083, n.s.) or on Social Entrepreneurial Outcome Expectation (H7b: β = -.041, n.s.). There is no mediation effect between Role Model and Social Entrepreneurial Intention through either Social Entrepreneurial Self-Efficacy (H7ac: β=0.015, n.s.) or Social Entrepreneurial Outcome Expectation (H7bc: β= -0.007, n.s.). Nevertheless, it directly influences Social Entrepreneurial Intention (H7c: β=0.261, p<0.001). This result, on the one hand, goes against the theory from Lent et al. (1994) and Carsrud et al. (1989), who propose that Role Models not directly but indirectly affect career choices through self-efficacy and outcome expectation. On the other hand, it affirms that being aware and observing other entrepreneurs can boost entrepreneurial ambitions and intentions (Davidson & Wieland, 1997; Schroder & Schmitt-Broderbund, 2006). The findings are in the same vein as many empirical works, such as those by Davidson (1995), Amouri & Ababsa (2016), and Tran & Korflesch (2018).

Concerning Perceived Support, the hypotheses related to Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Intention are not significant. Perceived Support has no direct influence on either Social Entrepreneurial Self-Efficacy (H8a: β=0.053, n.s.) or Social Entrepreneurial Intention (H8c: β=0.035, n.s.). Nor is there any mediation for the relationship among Perceived Support, Social Entrepreneurial Self Efficacy, and Social Entrepreneurial Intention (H8ac: β=0.010, n.s.). However, the effect of Perceived Support on Social Entrepreneurial Outcome Expectation (OE) is found to be statistically positive (H8b: β=0.096, $p<0.01$). In addition, Social Entrepreneurial Outcome Expectation mediates the influence of Perceived Support on Social Entrepreneurial Intention (H8bc: β=0.017, $p<0.05$). These findings, to some extent, support the work of Liñán & Santos (2007), who indicate that the paths from Perceived Support to Social Entrepreneurial Outcome Expectation and from Perceived Support to Social Entrepreneurial Intention through the mediator Social Entrepreneurial Outcome Expectation do exist. Nonetheless, these effects are weak, as the estimated values are 0.096 and 0.017, respectively.

In conclusion, the dissertation meets the research needs, as it conducts an empirical study of Social Entrepreneurial Intention. It answers the two research questions: ‘what factors influence the intention of a person to become a social entrepreneur’ and ‘what relationships exist among these factors’. In more detail, this thesis ascertained that Entrepreneurship Experience/Extra-curricular Activity, Role Model, Social Entrepreneurial Self-Efficacy, and Social Entrepreneurial Outcome Expectation directly and positively affect the intention of being a social entrepreneur among Vietnamese students. Entrepreneurship Education also influences the Social Entrepreneurial Intention, but rather than directly, it does so indirectly via Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Outcome Expectation. Similarly, Perceived Support has no direct relationship to Social Entrepreneurial Intention. However, it shows an indirect link via the mediator Social Entrepreneurial Outcome Expectation.

6.2 Contribution and Implication

This thesis provides new insights into the literature of social entrepreneurship in general and Social Entrepreneurial Intention in particular (section 6.2.1). It also provides important implications for practice in terms of promoting and spreading social entrepreneurship in Vietnam by understanding how people's intentions to become social entrepreneurs are formed (section 6.2.2). The following sections present the contribution and implication of the thesis in more detail.

6.2.1 Theoretical Contribution

The Social Cognitive Career Theory – SCCT (Lent et al., 1994) – is stressed as an "inclusive framework" (Doan Winkel et al., 2011) and a "potential approach" (Segal et al., p.1) for entrepreneurial intention research. It is considered the most acceptable and valuable model for explaining people's intentions to start a new venture (Gore & Leuwerke 2000; Smith & Fouad 1999; Swanson & Gore 2000). Nonetheless, no research has used the SCCT as a research model in the field of Social Entrepreneurial Intention. It is a missing aspect in the social entrepreneurship literature. Therefore, this thesis fills in this gap, as it is the first study to apply the SCCT theory to the formulation of Social Entrepreneurial Intention. With statistical support from the empirical data analysis, this thesis again confirms the reliability of the SCCT model for the understanding of intentions to become a social entrepreneur. Specifically, students' intention to start a social venture depends positively upon their beliefs in the abilities they have and the desired outcomes they expect to receive if they run their own social enterprises.

Moreover, the Social Entrepreneurial Intention Model (SEiM) in the dissertation itself represents remarkable contributions. First, it integrates diverse supported relationships between antecedents and cognitive variables found in existing theoretical intentional models of entrepreneurship. For instance, it determines that Entrepreneurship Experience/Extra-curricular Activity and Role Model directly and positively affect the intention to be a social entrepreneur among Vietnamese students. Entrepreneurship Education, and Perceived Support also influence the Social Entrepreneurial Intention but do so indirectly via the mediators Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Outcome Expectation. Second, it reduces the substantial conceptual

overlap, avoiding the inconsistency in existing models such as Theory of Planned Behavior – TPB (Ajzen, 1991) and the Entrepreneurial Event Model – SEE (Shapero, 1982) by using the SCCT theory as its underpinning. Finally, the SEiM model illuminates the premise that one's decision to become a social entrepreneur might be considered a career-related decision. The decision to run a new social venture is not for entertainment. It rather is a career-related decision on the magnitude of problems faced around the globe, which need sympathetic and realistic solutions (Ramanuj Ghosh, 2012).

Finally, this thesis provides insights into all core concepts of social entrepreneurship and Social Entrepreneurial Intention. In particular, it brings new definitions of self-efficacy and outcome expectation into the specific context of social entrepreneurship. It also systematically reviews currently dominant intention models in entrepreneurship in general and intentional studies in the context of social entrepreneurship in particular. It also confirms the reliability of the scales for some existing variables (e.g., Entrepreneurship Experience, Entrepreneurship Education, Role Model, and Perceived Support) and proposes highly reliable scales for some new factors such as Social Entrepreneurial Intention, Social Entrepreneurial Self-Efficacy, Social Entrepreneurial Outcome Expectation, and Entrepreneurship Experience & Extra-curricular Activity.

With all of these highlights, this thesis opens a future approach for doing research in Social Entrepreneurial Intention, especially by using the potentially promising model of Social Cognitive Career Theory.

6.2.2 Practical Implication

In practice, this framework provides a broad view of factors that could contribute to the success of the would-be social entrepreneur. It allows researchers to understand the complex interplay of a variety of effects on an individual's intention to become a social entrepreneur. Based on the statistically significant links among factors in the Social Entrepreneurial Intention Model (section 5.6), policy makers, professors, and consultants will have more tools and tips when working with individuals who are pursuing social entrepreneurship as their careers. Macro and micro policies, curriculums for teaching and training, and consultancy and support community services aiming at encouraging people

to become social entrepreneurs will be more oriented and more effective. The next sections will discuss in more detail implications for education and for government.

6.2.2.1 Implication for Education System and Universities

The dissertation confirms that the intention to be a social entrepreneur is determined by entrepreneurial self-efficacy (i.e., 'believe in what they can do') and outcome expectation (i.e., believe in the likely effects if they are a social entrepreneur). Moreover, Entrepreneurship Education has a directly positive relationship with Entrepreneurial Self-Efficacy and Entrepreneurial Outcome Expectation. Through these two mediators, Entrepreneurship Education indirectly links to Social Entrepreneurial Intention. Therefore, the more sufficient and productive entrepreneurship programs are, the higher capacity and ability in entrepreneurship students will have. In turn, they will believe more in the better consequences they would have, more likely developing an intent to become social entrepreneurs.

As almost no students in Vietnam presently have sufficient background, knowledge or skills about entrepreneurship, *a fruitful training program about entrepreneurship should be added into the official curriculum* in the universities. A range of skills such as planning, risk-taking, market analysis, problem solving, marshaling resources, creativity, and innovation should be taught in the program. Based on these areas, students will be well- equipped with notions and skills to initiate a business venture.

Together with knowledge and skills, experiences are also the cognitive elements that influence venture creation (Shane et al., 2003) because "what do I know, including what do I know how to do" (Locke, 2000, p.409). In this thesis, Entrepreneurship Experience & Extra-curricular Activity shows both direct and indirect effects on Social Entrepreneurial Intention. In terms of the indirect effect, Entrepreneurial Self-Efficacy is the mediator. The finding again confirms the remarkably important role of entrepreneurship experiences and extracurricular activities. If the extra-curricular activities are very well integrated into the educational process, students have more chances to gain intensive practical experience. They also can make the connection between their theoretical notions and real-world experiences. Therefore, in addition to enhancing formal entrepreneurship education, *universities should provide additional*

space outside of the curriculum for students to gain experiences and to take entrepreneurial initiatives. For instance, universities should *organize a diversity of actions such as games, competitions (at regional, national, or international levels), clubs, workshops, or conferences* with the topic of entrepreneurship in general and social entrepreneurship in particular. Through such competitions, entrepreneurial spirit can be spread. It is a means of infusing competitive fire into a coherently safe environment and a means of finding good ideas or potential entrepreneurs for nurturing. Similarly, entrepreneurship clubs function as a platform for students to involve themselves freely in entrepreneurship. They can take initiative, can work in a team, and can share knowledge and experiences with each other. They also can apply models, theories, and tools they learn from their entrepreneurship curriculum to practice. Moreover, entrepreneurship conferences and workshops should be seriously considered, as they are excellent opportunities for students to interact with specialists and to improve their knowledge and entrepreneurial competencies.

Furthermore, this thesis determines that Role Model has a direct and positive effect on Social Entrepreneurial Intention. This result affirms that Entrepreneurial Role Models serve as an additional ingredient for choosing the career path of a social entrepreneur. Hence, *universities should organize frequent talks, forums, social networking with entrepreneurs and in particular social entrepreneurs for students, and/or should invite such entrepreneurs to lecture during curricular courses*. This approach will provide chances for students to get to know entrepreneurs, successful social entrepreneurs in particular. Students can learn specific skills, knowledge, and behaviors from these Role Models and can even develop the motivation and enthusiasm to engage in social entrepreneurship.

In summary, universities, and higher institutions play a key role in fostering social entrepreneurship and stimulating the growth of social enterprises in the country. Universities should have a fruitful entrepreneurship and social entrepreneurship program in their official curricula. They also should deploy extra-curricular activities for their students to gain knowledge, skills, experiences, and enthusiasm for social entrepreneurship.

6.2.2.2 Implication for the Government

The dissertation notes that Perceived Support has an indirect influence on Social Entrepreneurial Intention through Entrepreneurial Outcome Expectation. If students receive support, particularly from the government or other state institutions, their beliefs in the desired outcome they obtain from a social enterprise are stronger, increasing their intention to become a social entrepreneur. This finding provides a hint to the government that in order to encourage students to become involved in social entrepreneurship, the government should *create a convenient and supportive environment for social entrepreneurship.* It should provide *economic and political support for social enterprises.* For example, in terms of economic support, the state should provide venture capital availability, favorable credit conditions, and sufficient infrastructure. Concerning political support, the government should issue advantageous and priority policies, regulations, and laws on supporting social enterprises in the society. Specifically, it can make a special policy for example on financing, sponsoring, and reducing taxes for social enterprises. Moreover, the government *should implement programs and activities in networking or consulting for potential social entrepreneurs.* Notably, *these programs should occur on a regular basis and be free of charge*.

Furthermore, this thesis also finds that, in addition to institutional support, students also highly expect support from their family. The families' opinions affect students' career orientation. Therefore*, the state should foster so-called 'awareness of social entrepreneurship' in the whole country*. Consequently, the term social entrepreneurship will spread out and touch people. The more people know and understand about social entrepreneurship and its roles in our society, the more they will engage themselves in this field. Therefore, people will more easily support their children if they start a social enterprise.

To conclude, the more support students receive from the government, the more likely it is that they will intend to become a social entrepreneur.

6.3 Limitations and Future Directions

This thesis uses a sample of last-year students from Vietnam. Therefore, it only can be representative of students in Vietnam in terms of intention to start a social enterprise. It cannot generalize its results to other contexts with different characteristics and backgrounds. Second, as it uses a cross-sectional sample, it cannot measure how Social Entrepreneurial Intention can change from time to time. Finally, this thesis is the first study to use Social Cognitive Career Theory (SCCT) as a theoretical background for understanding Social Entrepreneurial Intention. In order to have more reliable and valuable results, the Social Entrepreneurial Intention model (SEi) that is provided here should be tested in more studies.

With respect to future directions, the dissertation calls for more research applying and testing the SEi model in different groups and in different countries in order to develop generalized results. Such research should also investigate intention with a longitudinal sample in order to ascertain how intention changes over time. For example, how entrepreneurial self-efficacy and entrepreneurial outcome-expectation influence the growth of a person's intentions to create a business at different times in their life is an interesting topic.

Furthermore, the dissertation provides a promising background for understanding Social Entrepreneurial Intention based on Social Cognitive Career Theory (SCCT), which is proven statistically. Future researchers have another premise for the formation of the Social Entrepreneurial Intention model (SEi) in this thesis for understanding how intention should be formed. However, there are always chances for potential expansion, or even tightening in light of future empirical research. One possibility is that the culture factor should be considered as Baron and Henry (2010) suggest. Culture is defined as the underlying system of values peculiar to a specific group or society (Mueller &Thomas, 2001). Individuals are explained as "producers and products of social systems" (Bandura, 2002: p278). Hence, cultural background can affect individuals' behaviors in general and social entrepreneurial behavior in particular. Therefore, future work can integrate this construct into their intentional model. Another possibility is related to personality. Personality plays a significant role when situations such as entrepreneurship are complex and uncertain, especially in their initial stages (Frank et al., 2007; Gatewood, Shaver, &

Gartner, 1995). Personality has recently re-emerged in entrepreneurship research after a hiatus of almost 20 years (Locke Edwin A., 2004; Ciavarella, Buchholz, Riordan, Gatewood, & Stokes, 2004). Hence, including this factor when examining entrepreneurial intention is a very good potential direction for future research.

Finally, all planned behavior is intentional (Krueger, N.R., 2000; & Krueger, J.W., 2009); nevertheless, not all intentions lead to action (Krueger, N.R., 2000). Therefore, examining the relationship between intention and behaviors in the context of social entrepreneurship should be considered. For instance, what is the process from intention to taking the action of setting up a social business? What factors influence this process? How long will the process take?

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Appendix A. Contrasting Definitions and Core Characteristics of the Terms 'Social Entrepreneur', 'Social Entrepreneurship', and 'Social Enterprise'

Appendix A. Contrasting definitions and core characteristics of the terms "social entrepreneur"; "social entrepreneurship" & "social entreprise"					
Source	**Definition**	**The heroic social entrepreneur**	**The trading NPO**	**The innovating sectors**	**The entrepreneurial social enterprise**
Waddock & Post (1991)	Social entrepreneurs build scarce resources as does a commercial entrepreneur, but they differ from these in that (1) the fact that social entrepreneurs are private citizens, not public servents, (2) their focus on raising public awareness of an issue of general public concern, and (3) their hope that increased public attendion will result in new solutions evendially emerging, frequently from the same organizations already charged with dealing with the issue. It is this latter aspect that gives rise to				x
Thake & Zadek (1997)	Social entrepreneurs are driven by a desire for social justice. They seek a direct link between their actions and an improvement in the quality of life for the people with whom they work and those that they seek to serve. They aim to produce solutions which are sustainable financially, organizationally, socially and environmentally.	x			
Leadbetter (1997)	The use of entrepreneurial behavior for social ends rather than for profit objectives, or alternatively, that the profits generated from market activities are used for the benefit of a specific disadvantaged group.				x
Boschee (1998)	Social Entrepreneurs are nonprofit executives who pay increasing attention to market forces without losing sight of their underlying missions, somehow balancing moral imperatives and the profit motive - and that balancing act is the heart and soul of the movement		x		x
Bornstein (1998)	Social entrepreneur is a path breaker with a powerful new idea who combines visionary and real-world problem-solving creativity, has a strong ethical fiber, and is totally possessed by his or her vision for change	x		x	
Dees (1998)	Social entrepreneurs play the role of change agents in the social sector by: -Adopting a mission to create and sustain social value (not just private value;) -Recognizing and relentlessly pursuing new opoortunities to serve that mission; -engaging in a process of continuous in innovation, adaptation, and learning; -acting boldly without being limited by resources currently in hand; -exhibiting a heightened sense of accountatbility to the constituencies verved for the outcomes created	x			
Reis (1999) (Kellogg Foundation)	Social entrepreneurs create social value through innovation and leveraging financial resources…for social, economic and community development.			x	x
Johnson, (2000, p.1)	Social entrepreneurship is emerging as an innovative approach for dealing with complex social needs. With its emphasis on problem-solving and social innovation, socially entrepreneurial activities blur the traditional boundaries between the public, private and non-profit sector, and emphasize hybrid models of for-profit and non-profit activities			x	x
Thompson et al. (2000)	Social entrepreneurs are people who realize where there is an opportunity to satisfy some unmet need that the state welfare system will not or cannot meet, and who gather together the neccessay resources (generally people, often volunteers, money, and premises) and use these to "make a difference"	x			
Fowler (2000)	Social Entrepreneurship is the creation of viable socio-economic structures, relations, institutions, organizations and practices that yield and sustain social benefits. (p.649)		x		x

Source	Definition	The heroic social entrepreneur	The trading NPO	The innovating sectors	The entrepreneurial social enterprise
Dees et al. (2001)	Social entrepreneurs create social enterprises. They are the reformers and revolutionaries of our society today. They make fundamental changes in the way that things are done in the social sector. Their visions are bold. They seek out opportunities to improve society and they take action. They attack the underlying causes of problems rather than simply treating symptoms. And, although they may act locally, their actions have very potential to stimulate potential improvements in their chosen arena, whether that is education, health care, job training, and development, their environment, the arts, or any other social endeavors (p.5)	x			
Brinkerhoff (2001)	Individuals constantly looking for new ways to serve their constituencies and add value to existing services			x	
The Institute for Social Enterpreneurs (2002)	A social entrepneur is an individual who uses earned-income strategies to pursue social objectives, simultaneously seeking both a financial and social return on investment				x
Anderson & Dees (2002)	Social entrepreneurship is about finding new and better ways to create and sustain social value" (Anderson & Dees, 2002: 192)			x	
Drayton (2002)	A major change agent, one whose core values center on identifying, addressing and solving societal problems.	x			
Pomerantz (2003, p.26)	The key to social enterprise involves taking a business-like, innovative approach to the mission of delivering community services. Developing new social enterprise business ventures is only one facet of SE. Another facet is maximizing revenue generation from programs by applying principles from for-profit business without neglecting the core mission.				x
MacMillan (2003)	It's a process whereby the creation of new business enterprise leads to social wealth enhancement so that both society and the entrepreneur benefit (p. 1)				x
Boschee &McClurg, (2003)	"Any earned-income business or strategy undertaken by a non-profit distributing organisation to generate revenue in support of its charitable mission. 'Earned income' consits of payments received in direct exchange for a product, service or a privilege" (p. 7)		x		
Sullivan Mort et al., (2003)	Social entrpereneurs are first driven by the social mission of creating better social value than their competitors which results in them exhibiting entrepreneurially virtuous behaviour. Secondly, they exhibit a balanced judgment, a coherent unity of purpose and action in the face of complexity. Thirdly, social entrepreneurs explore and recognize opportunities to create better social value for their clients. Finally, social entrepreneurs display social innovativeness, proactiveness, and risk-taking propensity in their key decision making (p.82)				x
Alvord, Brown, & Letts (2004)	[…] social entrepreneurship that creates innovative solutions to immediate social problems and mobilizes the ideas, capacities, resources, and social arrangements required for sustainable social transformations (p. 262)				x
Bornstein, 2004	"[...] people who solve social problems on a large scale [..] Transformative forces: people with new ideas to address major problems who are relentless in the pursuit of their visions, people who simply will not take "no" for an answer, who will not give up until they have spread their ideas as far as they possibly can" (p. 1f.)				
Barendsen & Gardner (2004)	Social entrepreneurs are individuals who approach a social problem with entrepreneurial spririt and business acumen (p. 43)				x
Schwab Foundation (2005)	A social entrepreneur has created and leads an organization whether for profit or not, that is aimed at catalyzing system social change through new ideas, products, services, methodologies and changes in attitude. Social entrepreneurs create hybrid organizations that employ business method - but their bottom line is social value creation. They ability to turn new ideas into concrete transformational solutions is the hallmark of an entrpreneurs (in Fontan et al., 2007:23)				x

Source	Definition	The heroic social entrepreneur	The trading NPO	The innovating sectors	The entrepreneurial social enterprise
The New Heroes (2005)	"A social entrepreneur identifies and solves social problems on a large scale. Just as business entrepreneurs create and transform whole industries, social entrepreneurs act as the change agents for society, seizing opportunities others miss in order to improve systems, invent and disseminate new approaches and advance sustainable solutions that create social value" (n/a)	x		x	x
NYU Stern (2005)	The process of using entrepreneurial and business skills to create innovative approaches to social problems. "These non-profit and for profit ventures pursue the double bottom line of social impact and financial self-sustainability or profitability."			x	x
MacMillan (2005) (Wharton Center)	Process whereby the creation of new business enterprise leads to social wealth enhancement so that both society and the entrepreneur benefit.				x
Light (2005)	A social entrepreneur is an individual, group, network, organization, or alliance of organizations that seeks sustainable, large-scale change through pattern-breaking ideas in what and/or how government, nonprofits, and businesses do to address significant social problems (p.17)			x	
Tan et al. (2005)	Making profits by innovation in the face of risk with the involvement of a segment of society and where all or part of the benefits accrue to that same segment of society.			x	
Grenier (2006)	Social entrepreneurs as individuals change makers and innovative leaders (p.121)	x			
Spear (2006)	"[…] social enterprises, i.e. trading organizations within the social economy (co-operatives, mutuals, community business, and voluntary or not-for-profit organisations)" (p. 400)		x		
Leadbeater (2006)	Social entrepreneurs aim to create social value and bring about social change usually by helping people who offen cannot afford market-based solutions to their needs in health, education, and welfare (p. 234) 'social entrepreneurs build organization, usually not for profits, which create social value by applying business methods to meet social needs (p.241)	x	x		x
Peredo &McLean (2006)	Social entrepreneurship is exercised where some person or group….aim(s) at creating social value…shows a capacity to recognize and take advantage of opportunities…employ innovation…accept an above average degree of risk…and are unusually resourceful…in pursuing their social venture.			x	x
Austin & Wei Skillern (2006)	Social entrepreneurship as innovative, social value creating activity that can occur within or across the nonprofit, business, or government sectors (p. 2)			x	
Dorado (2006)	Social entrepreneurs may or may not be public sector officals; and their defining characteristic is not whether they create or change a public agency, but the blend of business and social principles they bring to it (p322)				x
Mair & Noboa (2006)	"[…] involves innovative approaches to address issues in the domains of education, environment, fair trade, health and human rights and is widely regarded as an important building block of the sustainable development of countries" (p. 121)			x	

Source	Definition	The heroic social entrepreneur	The trading NPO	The innovating sectors	The entrepreneurial social enterprise
Mair, Robinson, & Hockerts, (2006)	"[...] a wide range of activities: enterprising individuals devoted to making a difference; social purpose business ventures dedicated to adding for-profit motivations to the nonprofit sector; new types of philanthropists supporting venture capital-like 'investment' portfolios; and nonprofit organizations that are reinventing themselves by drawing on lessons learned from the business world2 (p. 1)	x	x	x	x
Robinson (2006)	"[...] a process, that includes: the identificiation of a specific social problem and a specific solution (or a set of solutions) to address it; the evaluation of the social impact, the business model and the sustainability of the venture; and the creation of a social mission-oriented for-profit or a business-oriented nonprofit entity that pursues the double (or triple) bottom line" (p. 95)				x
Mair & Marti (2006a)	…a process of creating value by combining resources in new ways…intended primarily to explore and exploit opportunities to create social value by stimulating social change or meeting social needs.			x	
Desa (2007)	"[…] a term used to describe innovative approaches to solve social problems" (p. 4)			x	
Baron (2007)	A social entrepreneur is willing to form a CSR (corporate social responsibility) firm at the financial loss because either doing so expands opportunity sets of citizens in consumption-social giving space or there is an entrepreneurial warm glow from forming the firm (p. 683)		x		
Brock (2007)	Social entrepreneurs share a common dream of making their ventures sustainable and contributing positively to their home communities				x
Haugh (2007)	Social entrepreneurship, the simultaneous pursuit of economic, social, and environmental goals by enterprising ventures […]. Social entrepereneurship is first and foremost a practical response to unmet individual and societal needs (p. 734)				x
Alter (2007)	A social enterprise is any business venture created for a social purposes-mitigating/ reducing a social problem or a market failure - and to generate social value while operating with the financial discipline, innovation and determination of a private sector business (p.12)				x
Wang (2007)	[…] social enterprise [is] defined as an organization that generates profit, but unlike a neoclassical firm, does not maximize profit, and unlike a nonprofit, is free to redistribute profits to investors (p. 86)				x
Martin &Osberg (2007)	Social entrepreneurship is the: 1) identification a stable yet unjust equilibrium which the excludes, marginalizes or causes suffering to a group which lacks the means to transform the equilibrium; 2) identification of an opportunity and developing a new social value proposition to challenge the equilibrium, and 3) forging a new, stable equilibrium to alleviate the suffering of the targeted group through imitation and creation of a stable ecosystem around the new equilibrium to ensure a better future for the group and society.			x	x

Source	Definition	The heroic social entrepreneur	The trading NPO	The innovating sectors	The entrepreneurial social enterprise
Tracey &Philipps (2007)	Social entreprenuers, individuals who develop economically sustainable solutions to social problems				x
Frances (2008)	"A social entrepreneur is not merely someone who is innovative in terms of delivering a service while still relying for funding on philantropic donations or government grants [..] locates the interface between a social goal and building a consumer base for that service that delivers that goal" (p. 7); "[...] it means more than just business acting ethically or working with charities, or charities embracing business principles. For me, social enterprise is the marriage between the market and the social purpose. People buy the enterprise's product or service because it will save them money and give them something they want within the contaxt of the market economy" (p. 152)				x
Crutchfield & McLeod Grant (2008)	[…] highly adaptive innovative leaders who see new ways to solve old problems and who find points of leverage to create large-scale systematic change (p. 4); […] they create social value; they relentlessly pursue new opportunities; they act boldly without being constrained by current resources; they innovative and adapt; and they are obsessed with results (p. 24f)			x	
Moray, Stevens, & Crucke, 2008	"[…] a global phenomenon that employs innovative approaches to addressing social issues with the aim to improve benefits to society" (p. 3)			x	
Vasakarla (2008)	Social entrepreneurs are those ' rare breed of leaders' who search for change, respond to it and exploit it as an opportunity to develop new business models for the social empowerment (p.32)				x
Ashoka (2009)	"Social entrepreneurs are individuals with innovative solutions to society's most pressing social problems. They are ambitious and persistent, tackling major social issues and offering new ideas for widescale change" (n/a)			x	
Schlee, Curren, & Harich (2009)	""Social entrepreneurs" utilize business skills to create organizations that have as their primary focus the provision of a social benefit, such as employment opportunities and services to disadvantaged groups in the United States and abroad. Social ventures differ from traditional nonprofits because they are at least partially self-sustaining and therefore less reliant on donations" (p. 5)				x
Brinckerhoff (2009)	A social entrepreneur is someone who takes reasonable risk on behalf of the people their organization serves.	x			
Skoll Foundation (2009)	"Entrepreneurs are essential drivers of innovation and progress. In the business world, they act as engines of growth, harnessing opportunity and innovation to fuel economic advancement. Social entrepreneurs act similarly, tapping inspiration and creativity, courage and fortitude, to seize opportunities that challenge and forever change established, but fundamentally inequitable systems. Distinct from a business entrepreneur who sees value in the creation of new markets, the social entrepreneur aims for value in the form of transformational change that will benefit disadvantaged communities and, ultimately, society at large. Social entrepreneurs pioneer innovative and systemic approaches for meeting the needs of the marginalized, the disadvantaged and the disenfranchised – populations that lack the financial means or political clout to achieve lasting benefit on their own" (n/a)	x		x	

Source	Definition	The heroic social entrepreneur	The trading NPO	The innovating sectors	The entrepreneurial social enterprise
Zahra et al (2009)	Social entrepreneurship encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organizations in an innovative manner.				
Durieux & Stebbins, 2010	"Social entrepreneurs execute innovative solutions to what they define as social problems" (p. 9)				
Dacin & Tracey (2011)	Social entrepreneurship focus on 4 keys factors: the characteristics of individual social entrepreneurs, the sphere of operation, the processes and resources used by social entrepreneurs, and the mission of the social entrepreneur				
Ashoka (2012)	Social entrepreneurs are individuals with innovative solutions to society's most pressing social problems […] They are both visionaries and ultimate realists, concerned with the practical implementation of their vision above all else.			x	
Samer Abu-Saifan (2012)	The social entrepreneur is a mission-driven individual who uses a set of entrepreneurial behaviours to deliver a social value to the less privileged, all through an entrepreneurially oriented entity that is financially independent, self-sufficient, or sustainable.				x
Centre for Social Initiatives Promotion (CSIP, 2012)	"Social enterprise is a concept that refers to the work of social entrepreneurs under different legal entities depending on specific purposes and operating conditions. Social enterprises directly target at social benefits, and are led by a strong entrepreneurial spirit to achieve both social benefits as well as economic returns				x