THE VALUE OF ENTERPRISE INCUBATOR AND THE SPECIALIZED ECONOMIC GROWTH CENTERS TO CAMBODIA AS AN UNDERDEVELOPED COUNTRY

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The Dissertation Approved by:

Dr. David Le Cornu, President and Faculty Supervisor

Ms. Judy Garforth, President Assistant, St. Clement University

DECLARATION

STUDENT'S DECLARATION:

I confirm that this is my original work and has not been presented in any other university/ institution for certification. The PhD Dissertation has been complemented by referenced works duly acknowledged. Where text, data, graphics, pictures or tables have been borrowed from other works, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulations.

CHEY TECH 12th January 2021

Date

SUPERVISORS' DECLARATION:

I confirm that the work reported in this PhD dissertation was carried out by the candidate under my supervision as university supervisor.

Signatui c.....

Dr. David Le Cornu

President and Faculty Supervisor

Date 15th February 2021

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ABSTRACT

With social enterprises playing an increasing role in the worldwide economy, and in particular, in developing countries like Cambodia, understanding entrepreneurial behavior is critical in enhancing the likelihood for success in the increasingly fast-paced, global, and uncertain environments.

In response to the knowledge gap that practitioners and researchers face, this study aims to contribute information as to how social enterprises in developing economies exhibit EO in their pursuit of their social and economic missions. To best understand the needs and opportunities in the nascent tech innovation sector, it is necessary to examine the current players and their experience in providing services and supports to innovators and entrepreneurs to use technology to create social and economic impact.

Over the period of three months, 32 semi-structured in-depth interviews were carried out with enterprises from diverse business sectors in Phnom Penh and Siem Reap in Cambodia. The sample was comprised of 12 non-NGO affiliated social enterprises and 20 commercial enterprises to provide a baseline assessment. Interviews were paired with a quantitative likert-type scale adapted from the Covin and Slevin (1989) EO scale.

Informed by desk research data and primary data collected from key informant interviews (KIIs), survey questionnaires, and event attendance, this research identifies and maps actors that provide tech innovation support programs, services and supplies.

In speaking with key informants, reading news and reports on Cambodia tech innovation sectors, and screening literature on support programs in the neighboring countries, some common themes emerged. The tech innovation sector has succeeded in crafting a positive attitude toward technology innovation and entrepreneurship amongst young and early career Cambodians most notably in the last few years; however, the tech

innovation ecosystem is still early. Startups are not widely ready for investments. The majority of startups are in pre-seed or seed stage while domain capacities in founders are developing in parallel.

Results from the study show that the developing economy of Cambodia has significant implications on current understandings of EO and its manifestation in social contexts. Social entrepreneurs in Cambodia are found to be highly innovative in developing solutions to their social problems and finding ways to target their beneficiaries. Furthermore, they are willing to take on steep financial and personal risk, although averse to risks that may jeopardize social impacts. The newly explored dimension of persistence was confirmed in some senses, although not demonstrated as persistence through adversity. Social motivations paired with capricious contextual dimensions familiar to developing economies are shown to considerably modify the EO dimension of proactivity. Local connections are found to underpin entrepreneurial success, and agility and cultural sagacity are suggested as highly relevant additional dimensions of EO.

The state of the landscape is instructive in that it reveals constraints in approaches to tech innovation education and support services, a need for better capacity in market analysis, and disconnections in social and professional networks. Without analyzing competitiveness of the landscape, which is beyond the scope of this study, this research recommends investing in innovation facilities, sharing of learnings to improve incubation processes, invest in equal opportunities for social innovations, minding the mentoring gaps, building founder tenacity, and leveraging regional opportunities for local investments.

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List of acronyms

ADB : Asian Development Bank

ASEAN : Association of South East Asian Nations

BMC : Business Model Competition

BOP : Bottom of Pyramid

CCC : Cambodia Chamber of Commerce
CDE : Community Development Enterprises

CES : Cambodia Electronic Source
CiC : Cambodian Investor Club
CICTA : Cambodian ICT Award

CJCC : Cambodia-Japan Cooperation Center

CSO : Civil Society Organization

CYEA : Cambodia Young Entrepreneurs Award

DDF : Dominant Driving Force
DI : Development Innovations
EBT : Economic Base Theory
EO : Entrepreneurial Orientation
ESI : Economics Science Institute

EU : European Union

FDI : Foreign Direct Investment
FTB : Food, Beverage, and Tobacco

GDP : Gross Domestic Product

GEI : Global Entrepreneurship Index

GIZ : German Agency for International Cooperation ICT : Information, Communication, and Technology

ILO : International Labor Organization
IMF : International Monetary Fund

IFC : International Finance Corporation

IT : Information Technology

ITC : Institutes of Technology Cambodia

JCI : Junior Chamber International

JICA : Japan International Cooperation Agency

KII : Key Informant Interview

KOICA : Korea International Cooperation Agency

LDC : Least Developed Country

MATCh : Mekong Agriculture Technology Challenge

MBI : Mekong Business Initiative MoC : Ministry of Commerce

MoEYS : Ministry of Education Youth and Sports
MIST : Mekong Innovative Startup Tourism

MPTC : Ministry of Posts and Telecommunications

MSP : Mekong Strategic Partner MVP : Minimum Viable Product

NBIA : National Business Incubation Association

NGO : Non-Governmental Organization

NGT : New Growth Theory

NIPTICT : National Institute of Posts, Telecoms and ICT

NU : Norton University

NUM : National University of Management
OTL : Office of Technology Licensing

PCT : Product Cycle Theory

PLC : Programmable Logic Controllers
RGC : Royal Government of Cambodia
RUPP : Royal University of Phnom Penh

SADIF : Smart Axiata Digital Innovation Fund

SDG : Sustainable Development Goal

SE : Social Entrepreneurs

SEC : Social Enterprise Cambodia SME : Small and Medium Enterprise

SNV : SNV Netherlands Development Organization

STEM : Science, Technology, Engineering, and Mathematics

TFP : Two-Fold Pricing

TGML : Think Global Make Local
TWF : Textile, Wearing and Footwear

UK : United Kingdom
UN : United Nations

USA : United State of America

USAID : United States Agency for International Development

WB : World Bank

WISE : Work Integration's Social Enterprise

WTO : World Trade Organization

YEAC : Young Entrepreneurs Association of Cambodia

CHAPTER I

INTRODUCTION

The objective of this Chapter is to provide an understanding of the choice of the study, its background, research objectives, problem statement and research questions, significance of the study, scope and limitations, and the theoretical framework that helped in building the research design, and other research activities related with this dissertation study.

1.1 Background of the Study

In this globalized 21st century, incubation program is a vital element in economic development in both developed and developing countries as well as in achieving the Sustainable Development Goal 2030 (SDG 2030). Allen and Rahman (1985) states that a small business incubator is a facility that aids the early-stage growth of companies by providing rental space, shared office services, and business consulting assistance.

and commercial enterprises as business incubators that are assisted by some partner organizations or development agencies in order to create new enterprises by providing them with a comprehensive and integrated range of services which include office space, administration at an affordable and temporary basis, common services including secretarial support, use of office equipment, hands-on business counseling and access to specialized assistance such as research and development and venture capital, and networking activities

operating as a reference point inside the premises among entrepreneurs and outside of it to the local community (Lalkaka, 2002).

From the business perspective, an incubator's main purpose is to make money for its investors. Thus, its profitability and business sustainability become the central concern for operating an incubator (Lalkaka, 2002).

In the most literal sense, a business incubator is a building that houses tenant companies that are in the initial phases of formation. Business incubators are, however, much more than companies whose goal is to house new entrepreneurs; they are more than just buildings. What defines a business incubator is a mix of internal and external services that come together within the context of a country's government and culture to generate new businesses that contribute to that country's economy.

The business incubator community consists of those who have a knowledge base about business incubators, either from working in one, or undertaking evaluative research. Among the international business incubator community, there is no one recognized "science" or step-by-step method for starting and successfully producing a business incubator. However, the published literature in the aggregate does suggest guidelines for the design and management of a business incubator. The research, from which these guidelines can be inferred, addresses the questions: what are the factors that produce successful business incubators, as well as those that lead to less success.

Cambodia has adopted in March 2015 the "Cambodia Industrial Development Policy, 2015-2025," with a "vision to transform and modernize Cambodia's industrial structure from a labor-intensive industry to a skill-driven industry by 2025, through connecting to regional and global value chain; integrating into regional production networks and developing interconnected production clusters along with efforts to strengthen competitiveness and enhance productivity of domestic industries; and moving

toward developing a technology-driven and knowledge-based modern industry.

The social enterprise sector in Cambodia is part of this vision. It is extremely different from what we expect to see in more developed regions, where much of the social enterprise literature is originating. In Cambodia, unlike the United States or Europe, there is no accumulation of local community-based enterprises scattered throughout the country. Instead, the developmental contexts of Cambodia have shaped a social enterprise sector characterized by NGO dependency, expatriate leadership, and arguably, a weaker impact on social inclusion and poverty reduction than what would be desirable (Lyne, 2012; Lyne et al., 2015). Social enterprises in Cambodia, which are mostly the beneficiaries of business incubation program in the country, are being primarily brought forth by NGOs in an effort to diversify revenue streams in response to the country's shifting funding landscape.

In order to realize the said vision and targets set above, the Royal Government of Cambodia (RGC) has embraced several strategies such as: (a) mobilizing and attracting foreign investments; (b) developing and modernizing small and medium enterprises thru social enterprises and business incubation; (c) revisiting the regulatory environment to strengthen country competitiveness; and (d) coordinating the supporting policies to enhance the development of "economic growth centers" and "economic poles," where activities such as development of platforms, modules or processes under the Skills or Digital outreach through the respective ecosystem in the areas. Outreach campaigns and programs are being undertaken among social enterprises and business incubators by service providers. (RGC, 2015).

In their research on Cambodian social enterprise, Lyne et al. (2015) state a very evident reality: "It needs to be understood that a combination of variables impact on SE governance and should be taken into account in the Cambodian context: the infancy of SEs

and their differentiated capacities; the culture of accountability in the third sector generally, coupled with donors' practices (beyond rhetoric); questionable political democracy; and the continued pervasiveness of patron-client relationships."

Cambodia is a proof that Western trends in governance, (social) business, and entrepreneurship are not mirrored in developing regions. In consideration of the latter, it is important that we begin to gain a better understanding of social enterprise and its constructs in developing regions, where, for better or for worse, social enterprise is playing a larger and larger role in the attempt to proliferate social, environmental, and economic capital. This research attempts to take entrepreneurial orientation (EO), a well-known and established firm-level strategic orientation, and better understand its role and application in the social enterprise sector of the developing region of Cambodia. Thus far, limited research has been done to understand entrepreneurial orientation in social contexts, and no attempt has been made to understand it in social contexts in developing regions.

Comprehending the entrepreneurial orientation of social entrepreneurs in Cambodia means studying the way in which social entrepreneurs are exhibiting risk, innovativeness, pro-activeness, and persistence in the pursuit of their economic and social missions. Additionally, it means understanding if these proposed dimensions of EO are suitable for Cambodian contexts, or if there are other aspects of EO that better underpin enterprise success in the area. Currently, the knowledge gap in scholarly literature also translates into a knowledge gap among social entrepreneurs working in the field. If we can better understand how strategic dimensions of entrepreneurship are being exhibited, we are better able to harness them to overcome the increasing social and economic pressures and recognized shortcomings of the Cambodian social enterprise sector.

This dissertation study is about more than just "success" and "failure." It goes beyond these factors to present the anatomy of a business incubator, and what role, if any, government and culture play in its formation and continuation. This study also provided some case studies of existing social and commercial enterprises that are operating in the economic growth centers of the country and are considered to be under business incubation programs from some NGOs or commercial enterprises. A substantial body of appendices are included: (a) a demographic information questionnaire for the social/commercial enterprises; (b) a semi-structured interview guidelines for the key informants; (c) a Quantitative Likert-Type Survey Questionnaires for managers, supervisors, and employees working for social/commercial enterprises/business incubators, and (d) additional case studies and raw data that bolster the explanation of business incubators and the reasons that have led them to either success or failure.

1.2 Problem Statement

Nowadays, incubation program is an important element in economic development in both developed and developing countries. This increased level of activity has stimulated an important academic debate concerning whether such property-based initiatives enhance the performance of corporations and economic regions. More practically, it has also led to the interest among policymakers and industry leaders in identifying best practices and success factors of incubators (Link and Scott, 2003).

Successful incubation program is essentially a good element in increasing the economic growth of many countries in Southeast Asia because they do not have to depend on Foreign Direct Investment (FDI). However, not all incubators are successful, and achieve their goals. There are some who faced failure to fulfill the requirements of the program. The issue of "success" or "failure" also depends on why the specific business incubator was set up originally. One of the questions that we need to ask is "what is the cause of their failure?"

Entrepreneurship is a hard and lonely road. If an incubator is not providing

structure for tenant interaction, it is flawed. The following are some factors that have been identified to the failure of some incubators such as lack of networking, lack of funding sources, insufficient entrepreneurial skills, unsupportive government policies and lack of pipeline of great talents.

Link and Scott (2003) states that if the power of innovation that still exists and has not leveraged incubator growth it would surely not reach full potential. If new technologies are not brought to market in a meaningful way to solve the energy/climate change, it is expected that there will be a missed historic opportunity to create new jobs, industries, and exports for workers.

There is a substantial number of business support programs that aim to help social entrepreneurs (from developed economies) to start doing business in developing countries.

These business support programs can also be called business incubators or business incubator programs.

The literature on business incubators have been mainly focused on describing them in a theoretical way. Allen and Rahman (1985) provided one of the earliest descriptions. They described small business incubation as "a facility that aids the early-stage growth of companies by providing rental space, shared office services and business consulting assistance." In a later study Al-Mubaraki and Busler (2013) wrote, "a business incubation program is an economic and social program which provides the intensive support to start-up companies, coach them to start and accelerate their development and success through a business assistance program".

These two sources are examples of the wide range of research that has been done on business incubators. However, they focused on business incubators for small businesses (Allen & Rahman, 1985) or give a more general literature review of business incubation programs in the case of research done by Al-Mubaraki and Busler (2013).

Thus, further research is needed to obtain more information about the success of incubator programs for social entrepreneurs who want to set up a business in developing countries, like Cambodia. Although there might be several studies on business incubators in other countries, but there is no research that looks at social enterprises as part of the business incubator program in Cambodia that are operating around the economic growth centers.

In this research, the problem has been investigated in terms of the underlying effect of business incubation programs on social start-ups (i.e. social and commercial enterprises) who want to be active in Cambodia and combine the results with existing research on 'incubator programs', 'social entrepreneurship', and 'entrepreneurship' as well as the reasons of the failure and success of these incubators. Other than that, this study has provided guidelines for the newcomers so that they can plan their business well and learn from the mistakes of others within the spheres and influence of other industries within the economic growth centers.

Entrepreneurial Orientation (EO), or the propensity to innovate, take risks, and be proactive, has been widely recognized as a crucial construct for business survival, growth, and enhanced performance (Covin & Slevin, 1991; Wiklund, 1999; Kraus et al., 2005; Al Swidi & Mahmood, 2011). According to recent and rather novel studies, the significance of entrepreneurial orientation does not diminish when applied in social enterprise/ social business contexts (Balta et al., 2012), but rather the constructs are exhibited in unique ways (Syrjä et al., 2013; Lumpkin et al., 2011). When considering the latter, however, it must be realized that despite the fact that more than 100 studies relating to entrepreneurial orientation have been carried out (as confirmed by a meta-analysis by Rauch et al., 2009), and hence, a wide acceptance of its conceptual meaning and relevance exists, only a handful of studies have applied its relevance in the context of social business.

Syrjä et al. (2013) are among the first researchers to study entrepreneurial orientation in a social context in their exploration of how social entrepreneurs exhibit innovativeness, pro-activeness and risk taking in the pursuit of their social and economic missions. Syrjä et al. build upon conceptual elaborations of the likely unique aspects of entrepreneurial orientation in social contexts (Lumpkin et al., 2011) and in nonprofit contexts (Morris et al., 2011), although they are the first to implement empirical analysis as a tool of inquiry. Through case study research of three Finnish social enterprises, they verify that the existence of a social mission does indeed have significant implications for the nature of entrepreneurial orientation in social enterprises (Syrjä et al., 2013, p. 7):

- Social entrepreneurs are willing to take substantial economic risks but are very careful and risk averse in respect to their social impact. They are cautious to avoid anything that could have the potential to harm the social identity of their organization.
- Social entrepreneurs exhibit highly proactive and innovative behavior in developing solutions and/ or new ways to approach the social purpose/ problem and in discovering new ways to generate income and increase revenues.

Social entrepreneurs exhibit an important new characteristic that is distinct to social EO rather than EO as a whole- the commitment to the social mission produces a remarkable persistence in pursuing goals and adhering to a course of action, despite the presence of adverse circumstances.

While novel, the aforementioned research, and subsequent results, must be restricted to entrepreneurial orientation of social enterprises in a Western context. This provides, at best, an abstract awareness of how entrepreneurial orientation is being carried out by social entrepreneurs who are operating in developing economies, where the SE sector is playing a greater role in the provision of goods and services.

This study attempted to help fill this research gap (as demonstrated in Figure 1) by providing new knowledge as to how social entrepreneurs in developing economies exhibit

innovativeness, pro-activeness, risk taking and persistence in the pursuit of their social and economic missions.

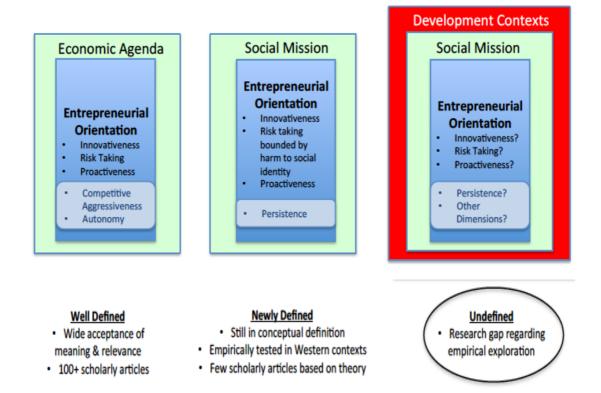


Figure 1-1: Research Gap in Entrepreneurial Orientation

Source: Self-made based on Miller, 1983 (EO); Lumpkin & Dess, 1996 (EO + Competitive Aggressiveness & Autonomy); Lumpkin et al., 2011 (EO in Social Contexts); Syrjä et al., 2013 (EO in Social Contexts + Persistence)

The dissertation study has been carried out in Cambodia, a country that has been accredited by the International Finance Corporation (IFC) as having "one of the most active Social Enterprise sectors in the region" which "could inspire new developmental approaches to other least developed countries" (Lyne at al., 2015, p. 5). Cambodia has provided an exceptional ground to explore this defined research gap for several reasons.

Social entrepreneurs and social business have not gone unrecognized in the area; Foundations such as Skoll, Schwab, Ashoka and Rockefeller have given awards to social entrepreneurs in Cambodia (Lyne at al., 2015, p. 5), the 'Stay Another Day initiative for pro-poor tourism' has been supported by the Cambodian Ministry of Commerce, and "night markets to deliver social trading space for retailers of traditional Cambodian products" have been invested in by municipal authorities in Phnom Penh and Siem Reap (Lyne, 2012). Furthermore, the entrepreneurial culture of Cambodia has been acknowledged by many scholars. (Southiseng et al., 2008; Shariff & Peou, 2008).

That being said, despite the public awareness and recognition of the SE sector, Cambodia remains one of the world's least developed countries, which undeniably plays a role in how entrepreneurial orientation is demonstrated.

In Cambodia, organization leaders may or may not even regard their organizations as 'social enterprises', despite following strict social agenda (Lyne et al., 2015). This is comparable to other developing countries in which leaders are operating in a space that lacks judicial legitimacy, laws and regulations. Social enterprises are instead "legitimized by their creation of social values and economic values" (Cheng, 2015, p. 135). Likewise, in Cambodia, there are no laws or legal frameworks pertaining to social enterprises, with only the formal option being to register as a private company or a non-governmental organization (Lyne et al., 2015). The country is viewed as having weak market mechanisms with weak welfare states, whereas the strength of the social economy in Cambodia is more uncertain (Lyne, 2012). This results in a blend of social economy with informal activity, high NGO dependency, and a weak impact on poverty reduction, or (upon strengthening of the social economy), perhaps the ability to develop economic alternatives (Amin, 2009). Consequently, the area provides a relevant and interesting space to test the degree to which current understands of EO can or cannot be applied.

Although research into Cambodia's social enterprise sector is somewhat limited, there is little doubt that the region embodies the developmental characteristics that bring

new knowledge to the entrepreneurial orientation arena. While an investigation into the entrepreneurial orientation of Cambodian social entrepreneurs surely cannot be generalized to other developing nations, it can help shed light on how complicated development contexts may or may not have an additional influence on entrepreneurial orientation in social contexts.

Furthermore, as management theories are culturally bounded, clarifying the extent to which entrepreneurial orientation theory rings true in the context of social enterprise in Cambodia helps to establish boundary conditions of entrepreneurship theory (Rauch et al., 2009).

1.3 Proposed Research Objectives

In this dissertation research study, the dimensions and manifestations of social and commercial enterprises in their entrepreneurial orientation (EO) have been explored as business incubators in the Cambodian contexts that underpin their success or failures. The following are the research objectives:

- To identify the success factors that contributes to the successful incubation program in Cambodia on its transition from underdeveloped to a developing economy.
- To pinpoint the factors contributing to the failure of some incubators in the country around some regional economic growth centers and economic poles.
- To evaluate the importance of the factors listed in achieving the performance level
 of incubators within the regional economic growth centers and economic poles of
 the country.

1.4 Research Questions

The subsequent research questions were investigated within the case studies of each social and commercial enterprises that are being funded by NGOs and other partner

organizations within Cambodia with the aim to shed light on the wider research gap identified in the problem statement:

- What is the effect of incubator programs on the success of social and commercial enterprises that are operating around specialized economic growth centers and economic poles in Cambodia?
- What extent does the support of those programs lead to a positive impact in Cambodian entrepreneurial orientation for business incubators?
- How do non-NGO affiliated social entrepreneurs in Cambodia operating near or within the specialized economic growth centers and economic poles exhibit entrepreneurial orientation in their pursuit of their social and economic missions?
 - ➤ How is innovativeness being approached and/or achieved?
 - ➤ How is pro-activeness being approached and/or achieved?
 - ➤ How is risk taking being approached and/or achieved?
 - ➤ How is persistence being approached and/or achieved?
 - ➤ Are there any additional dimensions of entrepreneurial orientation being demonstrated? If so, what are they and how are they being approached?
- How does the entrepreneurial orientation of non-NGO affiliated social entrepreneurs compare to the entrepreneurial orientation of commercial entrepreneurs in Cambodia?
- Is there a relationship between certain cultural and organizational characteristics of social and commercial entrepreneurs and their entrepreneurial orientation that are operating around specialized economic growth centers and economic poles?
- Are there contextual qualities affecting the proposed model of entrepreneurial orientation and its adoption in Cambodia?

1.5 Scope and Limitations of the Study

The study was limited to some extent to the review of various literatures on business incubators in Cambodia. However, there are several key informant interviews, focus group discussions, and rapid assessment surveys that were undertaken among social and commercial enterprises that are under business incubation programs of partner organizations.

Various factors that contribute to the success and failure of the incubation program in Cambodia have also been reviewed, specifically on how the factors have influenced the performance of the incubators. For this study, a mixed method has been used such as secondary data review (i.e. from various studies that are related to this proposed study), and primary data (i.e. from demographic profile of respondent social and commercial enterprises, key informant interviews from NGOs and donor partners assisting the enterprises, small focus group discussions, and quantitative survey among organizational participants from social/commercial enterprises).

1.6 Importance of the Research

This dissertation study is a manifestation of entrepreneurial orientation of Cambodia, as a developing economy. More specifically, a focus is taken on how social entrepreneurs exhibit entrepreneurial orientation in the developing area, specifically in areas that have been identified by the Royal Government as specialized economic growth centers or economic poles. The research seeks to understand if the predominantly Western construct of entrepreneurial orientation (EO) is applicable in this context, and if not, how it can be modified to better exemplify the dimensions of entrepreneurship that underpin the strategy and success of entrepreneurs in this field.

This research study has provided two significant contributions:

- First, the research has augmented current understandings of EO in social contexts.
- Second, the research has been expected to challenge conventional understandings of the proposed EO model and has attempted to better fit the construct to the unique contexts of developing economies, such as Cambodia.

From a practitioner's perspective, it is desirable for social enterprises to understand the factors and conditions that produce EO, and thus bolster one's ability to develop EO competencies. Proficiency regarding innovativeness feeds into the propensity to support and implement creativity and experimental processes, while competency of pro-activeness indicates the tendency to compete aggressively with other firms (Hu & Pang, 2013).

Furthermore, it is valuable to understand if there are lesser-known aspects playing into entrepreneurial success in developing regions, and if so, what are they and why are they important? From a different standpoint, procuring information pertaining to the relationship between social enterprise organizational structure and EO is of particular importance for future practitioners. Understanding how social enterprise business models demand unique EO proficiencies allows practitioners to design enterprises that are compatible with their personal entrepreneurial capacities.

Studying entrepreneurial orientation in Cambodia has brought new knowledge to the academic arena by shedding light on the cultural characteristics that are influencing the attitudes of entrepreneurs and the positioning of their business.

Mainstreaming the understanding of entrepreneurial orientation may not capture its true meaning in Cambodia, or the determinants of it in developing economies at large. This study in particular has explored the entrepreneurial orientation of non-NGO affiliated social entrepreneurs in Cambodia. Commercial entrepreneurs have been studied to provide

a baseline and evaluation of how the entrepreneurial orientation of non-NGO affiliated social entrepreneurs differs from their commercial counterparts.

The study has also taken into consideration the cultural and organizational characteristics of the selected entrepreneurs in understanding their entrepreneurial orientation. It has been undertaken in order to determine the effect of incubator programs on the success of social entrepreneurial start-ups and set up a business, success factors and lessons learned in the operation of social/commercial enterprises as business incubators in Cambodia. The results of operation of the business incubators that have been studied will serve as guide in helping new incubators to improve their business performance.

The Royal Government of Cambodia can use the results of this study in assisting them in running business incubators under their supervision, while academicians can use the experiences of the incubators as case studies in management courses.

1.7 The Theoretical Framework

This dissertation study has worked on the following theoretical framework:

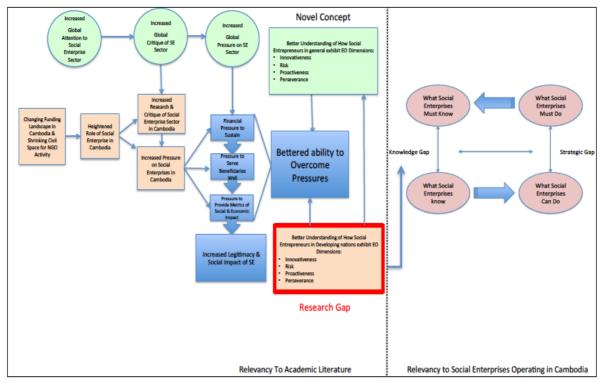


Figure 1-2: Theoretical Framework

1.8 Definition of Main Concepts

Because of the variations in definitions of the terms 'business incubators programs' and 'social entrepreneurship' in different studies, a literature review has been provided of this research study in Chapter II. However, short descriptions of some of the terms that were used in this study are defined as follows:

> Business incubator program

"A business incubations program is an economic and social program which provides intensive support to start-up companies, coach them to start and accelerate their development and success through a business assistance program." (Al-Mubaraki & Busler, 2013)

> Social entrepreneurship

"Social entrepreneurship is seen as differing from other forms of entrepreneurship in the relatively higher priority given to promoting social value and development versus capturing economic value." (Mair & Martí, 2006)

> Entrepreneurial Orientation (EO)

Entrepreneurial Orientation is a key concept when executives are crafting strategies in the hopes of doing something new and exploiting opportunities that other organizations cannot exploit. EO refers to the processes, practices, and decision-making styles of organizations that act entrepreneurially.

> Developing country

"According to the UN, there is no established convention for the designation of "developed" and "developing" countries or areas in the United Nations system. In common practice, Japan in Asia, Canada and the United States in northern America, Australia and New Zealand in Oceania, and Europe are considered

"developed" regions or areas. This description therefore defines all countries that are not developed countries as developing countries." (United Nations, 2013)

1.9 Organization of the Dissertation

The proposed dissertation has been organized as follows:

- Chapter 1- Introduction: This Chapter provides an understanding of the choice of topic, the study's background, problems of the study, the objectives, the research questions, the scope and limitations, the significance of the study, the definition of terms and the structure of the whole study.
- Chapter 2 Review of Related Literature: This part provides the academic background relevant to the Entrepreneurial Orientation arena including conceptual definitions for each of the EO constructs, including some documented review of social and commercial enterprises as business incubators. Fundamentals for understanding entrepreneurship and social enterprise in Cambodia are also provided, as well as the socio-economic and business situation in the country. The chapter also introduces to some research sites and the organizations that will be of assistance in providing contacts for social enterprises in Cambodia. The chapter closes by clarifying the deliberate choice to study non- NGO affiliated social enterprises throughout this study.
- Chapter 3 Methodology: This chapter provides the details the methodologies that were implemented throughout the study. This encompasses the selected research strategies, the research population, and data collection techniques and analysis. This chapter also provides information regarding the design of an appropriate entrepreneurial orientation (EO) scale, the conceptualization of firm-level EO, the main reasons for the chosen method and finally an introduction

to the case companies as business incubators, as well as the details concerning the information to be collected from them.

- Chapter 4 Research Findings and Analysis: This part contained the scientific research findings that were collected in the field based on in-depth interviews, focus group discussions, and a rapid assessment survey that have been completed during the period of the study. This chapter begins by providing descriptive information about the cultural and enterprise-based characteristics of the research population. This has been followed by contextual considerations that were discussed throughout the in-depth interviews, many of which are expected to confirm previous accounts of the Cambodian business environment. This chapter also provided the analysis of how business incubator programs support social entrepreneurs in their business development, the effects of the business incubator program on the social entrepreneurial firm, the extent to which social entrepreneurial firms create an impact in Cambodia. A generic business incubator model has also been discussed, along with the definition of "key best business practice issues" that provided the framework required to define benchmarking indicators. The model also highlighted the "key performance drivers" that influence the extent to which incubators achieve best practice benchmarks. Based on the benchmarking analysis, this chapter provided suggested key actions that should be taken in setting up and operating business incubators. Accounts of EO based on the organizational structure of social enterprises have also been considered. The subsequent sections in this chapter also presented direct research findings according to research questions 1-4.
- Chapter 5 Summary of Discussions, Conclusions, and
 Recommendations: The fifth chapter has been devoted to the Summary of

Discussions related to the results of the study, including Conclusions and Recommendations. The summary of discussions has framed the findings from this study in relation to the field of entrepreneurship in social contexts at large. Significant results from this study are discussed, and compared to and contrasted with existing scholarly research. The conclusions and recommendations have been based on results of the study, considering the theoretical and conceptual framework presented in the third chapter. The Conclusions that have been presented answered mostly the research questions related to business incubators as they relate to the theoretical models presented. Recommendations have also been presented in terms of what business incubators have to undertake to ensure success of their organization. Additional suggestions for future research were also provided in terms of the key aspects that were not completed by the research study.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter provides a summary of the various literatures, documents, manuscripts and studies that were reviewed to gain a better understanding on the dissertation research study topic. In this part of the proposed study, definition of business incubators is presented, entrepreneurship in developing countries, social entrepreneurship, business incubator program along with the various classification and types of business incubators. Definition of Success and Failure factors are also presented, together with the agreements and disagreements of authors on success factors of business incubators were also presented. The Fundamentals for the understanding of Entrepreneurial Orientation (EO), social and commercial enterprises in Cambodia have also been presented. This chapter closes by clarifying the deliberate choice to study non-NGO affiliated social enterprises throughout the dissertation study.

2.1 Definition of an Incubator

In its most literal sense, a business incubator is a building that houses tenant companies that are in their initial phases. However, a business incubator is more than just a building. Their goal is to assist in the development of new entrepreneurial organizations while they are in their initial phase. By doing this, business incubators are able to help these new companies survive and grow during a period in which they are most at risk for failure. (NBIA₄, 1).

These services are generally developed by the management of the incubator. They can either be offered within the business incubator's walls or outside the incubator through contact networks. Internally, there are two types of services that are offered: facilities and business services. When it comes to facility services, business incubators tend to offer

rental space, flexible leases, shared equipment, shared basic business services, and technology support services. A business incubator's offer of service tends to include management guidance, technical assistance, consulting that is geared towards the individual company, and aid in obtaining the finances needed for company growth (NBIA₆, 1).

2.2 Types of Incubators

According to the National Business Incubation Association (NBIA) there are five basic classifications of business incubators. These classifications are mixed use, technology, manufacturing, service, and other. While the meaning of what technology, manufacturing, and service incubators are is generally understood, "mixed use" and "other" are not. Mixed use relates to business incubators that have more than one type of company under its roof. This means that a mixed-use business incubator can have tenant companies that not only produce new technology, but also ones that produce services. By comparison, technology incubators only have tenant companies that produce new technologies. The classification of "other" according to the NBIA includes business incubators that are for web-related businesses, community revitalization programs, and simply "other." Because of these five different classifications, business incubators are sometimes more commonly referred to as technology incubators.

2.3 Business Incubators' Terminologies

2.3.1 Tenant Company

Tenant companies are, for the purposes of this paper, what fledgling companies will be called. These are new companies that choose to come into the business incubator in order to take advantage of the services offered by the particular business incubator that they choose to enter.

2.3.2 Research Park

Research parks are seen as property-based ventures that have research and development facilities. These facilities are used for technology and science-based companies. Research parks tend to be larger projects than business incubators; they usually span many acres or miles. Unlike business incubators, they house big and small companies, and government, university, and corporate labs. Research parks also do not offer the types of business assistance that is seen within business incubators. However, some research parks do include a business incubator that tends to be focused on new companies (NBIA2, 1).

2.3.3 Science Park

Science Parks are usually described as a development of industrial nature, which accommodates high technology ventures. Generally, they are associated with a higher education research establishment. This linkage allows for the "cross-fertilization" of ideas between researchers and entrepreneurs. As a result, academic knowledge can be effectively applied to commercial use (Narains, 1).

2.4 Lessons Learned from other Business Incubator Studies

David Lewis completed one of the most comprehensive studies on business incubators for the United States Economic Development Administration. Although Lewis' study mostly focused on strategies to measure incubator success, he also looked at location characteristics of the incubator's facility. Lewis brought up the research question that location characteristics of an incubator can make or break the overall success of the incubator because of the local market and need for an incubator, industrial and occupational mix, education attainment, presence of institutions of higher education, and financial and public investment (Lewis, David 2, 13-18). He also researched other complementary policies at the state, regional, and local level that would improve the return

on public investment of the incubator (Lewis, David 2, 13-18). He used Wolfe's theory as a basis to determine the characteristics of a region that can increase the likelihood of a successful business incubator. These regional characteristics of successful incubators include the presence of one or more technology generators (such as a university, national laboratory, or research and development laboratory), a sufficiently- skilled labor force, a technology culture in the community, sufficient investment of capital activity in the region (angel investors, venture capital, traditional financial markets, SBIR grants, state-funded deed and venture funds, and corporate partnership money) (Lewis, David 21).

An additional study completed by Rothaermel and Thursby suggests that exclusive licensing grants by the university's Office of Technology Licensing (OTL) have a higher probability of success than companies not having a license ("Incubator firm failure or graduation?" 1085-1088). This study also suggests the positive role of faculty cooperation in successful commercialization of university inventions ("Incubator firm failure or graduation?" 1085). Lessons learned include the success businesses in incubators can have when they collaborate with universities, especially to help license their products.

A research on mapping the dynamic of social enterprises and ICTs in Cambodia (Kelly A. Hutchinson (Feb 2007). The research maps the e-business status of Cambodian social enterprises along a continuum from precursor activity to fully integrated e-services. ICT contribute to Cambodian social enterprises and ICT adds value to their operation; however, access to affordable and reliable local ICT resources is an important factor determining long-term uptake. It also shows that external support is seen as vital to the success of ICT uptake by social enterprises in Cambodia. Donors have the most significant influence on social enterprises' framing of ICT, while NGOs, associations and the private sector are also important institutional players in shaping understanding and uptake of ICT.

2.5 Economic Development Theories and Policies for Business Incubators

Economic developers ideally use a combination of "nuts and bolts" incubator strategies along with a variety of development theories when engaging in city economic development projects. For example, economic base theory (EBT) via endogenous and exogenous growth theories are typically used in economic development practices. Goals of endogenous policies are to promote growth from within the community while exogenous growth aims to promote growth from external markets (Isserman, Andrew 174-177 and Feser, Edward 51). EBT divides the regional economy into two sectors, basic (businesses that are depend upon non-local businesses and factors) and non-basic (local companies depend on other local companies and factors) (Feser, Edward 52-55). This theory has its applications in regional economic development by attracting "a suitable proportion of industries whose products are in heavy demand from outside the region" (Feser, Edward 52). Through the "supply-side" creation of jobs and increases in income in a community, this is a common framework used to promote growth in former industrial cities (Markley, Deborah 277).

However, more common strategies for many countries typically focus on endogenous growth and neoclassical economic development theory. Promoting growth through local job creation and increased wages enhances the basic industry's multiplier for goods and services thereby increasing local jobs and the consumption of goods and services in the market (Isserman, Andrew 182). Multiplier effects also generate positive spillovers into the local economy, such as contracting for services with local businesses, and more localized spending in general (Isserman, Andrew 182 and Feser, Edward 53). However, a problem with this theory is that it assumes constant returns to scale (or constant input and output resulting in constant growth) and doesn't include government correction for market failures, such as explained in post-Keynesian demand-side public

policies (Feser, Edward 130-133, 140-145).

The product cycle theory (PCT) is an endogenous economic development approach that can be used to focus on attracting and retaining new and small businesses in Gateway Cities. In the PCT, the first stage, or the innovation stage, can be enhanced by trying to promote small start-ups in industries related to research and development (Feser, Edward 175-178). This is typically done by establishing an incubator in an area where a comparative advantage or value-added industry or technology exists (Lewis, David 7). This may be supported by already established links to universities, community colleges, and well-educated workers (Lewis, David 13-18).

When a business incubator tenant begins to mature, it becomes more stable and may be ready or forced to move out of the facility on its own. When this happens the local and regional economic development officials should make every effort to accommodate the growing business so that it remains in the region, otherwise the front- end investments are lost. Some business incubator facilities, such as the Springfield Business Incubator, are located in technology parks to aid in accommodating growing companies who wish to "stay local" (STCC Technology Park).

New growth theory (NGT) provides an example of an endogenous theory which builds upon earlier approaches, such as the PCT. Its goal is to create an environment which increases economies of scale (having a larger output compared to the same input thereby increasing growth over time) by promoting policies that enhance knowledge, technology, and innovation (Feser, Edward 130-131, 136-138 and Cortright, Joseph 2). NGT has been popular with the New Economy's promotion of human capital, on-the-job training, and collaborative workforce development strategies (Feser, Edward 123-125, 132-135). NGT tends to focus on high-growth and high-return industries as seen in the following technology-related industries: engineering, biotechnology, nanotechnology, computer and

information technology, and green companies (Lewis, David 1). The benefits of targeting these industries can further strengthen agglomeration economies, local supplier networks, spillovers, positive externalities, and higher multiplier effects which benefit the regional economy (Feser, Edward 123-125, 132-135 and Lewis, David 21 and Cortright, Joseph.

Specific industries targeted by the region, city, and sometimes the business incubator can be selected by looking at industry clusters or the area's biggest, largest growing, and top performing industries (Isserman, Andrew 183-187). Industry clusters are determined by studying interconnections of businesses and the balance of trade between similar inputs and outputs in the region (Isserman, Andrew 183-187 and Cortright, Joseph iv-v). For example, in the Lowell region, the largest employment sectors are education, health, and social services; manufacturing; and wholesale and retail trade (City of Lowell Website). The largest employers in the Springfield area are in metal working, insurance, chemical, paper, government, and health care facilities (City- Data.com, Springfield: Economy).

Having an adequate supply of labor and the particular skills of workers in the labor market are also important determinants of growth. If there is a mismatch between existing skills of unemployed members of a community and skills needed by a company or industry cluster, creating additional training and education programs is essential as well as some consideration in certain circumstances to wage-subsidies, public service employment, and other demand-side policies to increase jobs for the poor (Bartik, Timothy 208). As markets and technologies change, the incubator's funding sources, offered services, and training programs need to change as well (Lewis, David 24-25). I feel this is especially true in Gateway Cities, where a once relatively large manufacturing base has created labor-supply skills mismatch. For example, Springfield's typical metalworkers may be ill-equipped to find employment in business incubator-enhanced firms in many knowledge-based

economy sectors without substantial retraining.

2.6 Business Incubators as a Development Strategy

Business incubators have great potential as an economic development strategy for most countries of the world. A business incubator can provide a mix of facilities, services, and knowledge-sharing opportunities that can draw small businesses into these cities to help them grow and prosper. A business incubator can also provide linkages with state universities, community colleges, faculty, and tech transfer programs to further leverage the assets of the region. This, used appropriately with other economic development policies and theories, can help create focused areas of growth in both developing and developed countries in the area of business incubation.

2.7 Entrepreneurship in Cambodia

2.7.1 Context and main challenges

Cambodia can no longer depend on foreign investment as its sole engine of growth. Cambodia's strong economic growth, at an average of 7.6 percent from 1994-2015, has relied heavily on foreign investment, attracted by its comparatively low-cost labor and favorable foreign investment incentives. This has resulted in the growth of important sectors— particularly garments, footwear, and tourism—focused on exporting to international markets. However, this engine of growth will face challenges in the medium term as trade preferences expire and Cambodia's labor cost advantages dissipate (World Bank, 2017).

Cambodia could address these challenges by developing its own domestic enterprises that create growth and employment and open new areas of economic activity. However, to date, Cambodian owned enterprises have not demonstrated an adequate capability to grow beyond micro-and small-sized into competitive medium- and large-sized enterprises. As a result, Cambodia's distribution of enterprises has a "missing

middle," with medium-sized enterprises making up only 1.3 percent of the roughly 500,000 enterprises (Cambodia Economic Census 2011). Micro- and small-sized enterprises (employing between 1-20 staff) accounted for 97.7 percent of the enterprises, while large enterprises accounted for 1 percent.5 This type of enterprise size distribution, common in low- and middle- income countries.

2.7.2 Cambodia's Entrepreneurship Ecosystem

Cambodia's entrepreneurship ecosystem is less developed than regional and global competitors. For instance, the 2018 Global Entrepreneurship Index (GEI) ranks Cambodia 113 out of the 137 countries. This is behind the lower middle-income average as well as Cambodia's ASEAN peers.

A comparative analysis across ecosystem pillars indicates that Cambodia's current ecosystem does not provide adequate support for entrepreneurs and that some factors may limit the creation and growth of enterprises. Based on the Babson Entrepreneurship Ecosystem framework9, these pillars are policy and leadership, entrepreneurial culture, support structure and organizations, markets, availability of financing, and human capital and skills.

2.8 Social entrepreneurship

Seelos and Mair (2005) stated that human needs and wants are the fundamental drivers of companies' decisions as to which products or services to produce. They wrote that companies struggle to find new markets and value propositions, and for large corporations the quest for growth has become a holy grail. 'Two fundamental rules seem to apply. First, in industrialized countries, many people are unwilling to pay enough for certain products and services they want. This is a fact that became painfully clear to some "dotcom" start-ups in the nineties: While the free services they offered were used by millions, they found it impossible to implement fees for their services when venture capital

dried up. Second, the very basic needs of millions of people in non-industrialized countries remain unmet, mainly because these potential customers are willing but unable to pay for products and services that would satisfy their needs. However, that is not the only reason why those unsatisfied needs have failed to attract the business community in search of new markets. The World Bank maintains that services to satisfy basic human needs, particularly those that contribute to health and education, are failing poor people in terms of access, quality, and affordability. The main reason for this failure appears to be the fact that public spending does not reach the poor and, if it does, service provision is often inefficient and of poor quality.'

'A growing number of initiatives all over the globe seem to be defying the obstacles that have prevented business from providing service to the poor. Collectively, those initiatives constitute a phenomenon that has been dubbed "social entrepreneurship" (Seelos & Mair, 2005).

Chell, Nicolopoulou and Karatas-Özkan (2010) mentioned the increasing international attention being paid to social entrepreneurship and social enterprises. 'Numerous institutions are paying attention to the phenomenon and dedicating resources to social entrepreneurship.'

2.8.1 Entrepreneurship

In agreement with Martin and Osberg (2007), who wrote that the definition of the term "social entrepreneurship" must start with the word "entrepreneurship", the search for a clear description of social entrepreneurship starts with the origins of the word "entrepreneur". Martin and Ostberg (2007) stated, 'If entrepreneurship do not have a clear meaning, then modifying it social will not accomplish much either.'

Dees (1998) mentioned the common association of being an entrepreneur with starting a business but added that this is a loose application of a term that has a much more

significant meaning. Entrepreneurs create value. They are also the change agents in the economy. By serving new markets or creating new ways of doing things, they move the economy forward. He continued by adding that entrepreneurs have a mind-set that makes them see the possibilities rather than the problems created by change.

Chell et al. (2010) described the characteristics that characterize social enterprises. Four of them reflect the economic and the entrepreneurial dimensions of social entrepreneurship. "First, there exists a focus on continuous activity of producing goods and or selling services. Second, social enterprises are characterized by a high degree of autonomy as they are created by a person, social entrepreneur or a group of people and are governed by them in the framework of an autonomous project. Third, a significant level of economic risk is involved. Those who set up a social enterprise assume the risk of the initiative. Finally, by utilizing both voluntary and paid workers, the activity carried out in the social enterprises requires a minimum level of paid workers, in contrast to what often is in the case of 'economic' enterprise."

2.8.2 Defining social entrepreneurship

'Any definition of social entrepreneurship should reflect the need for a substitute for market discipline that works for business entrepreneurs. We cannot assume that market discipline will automatically weed out social ventures that are not effectively and efficiently utilizing resources' (Dees, 1998).

Dees (1998) gave a definition of social entrepreneurship which he said is clearly "idealized". He continued by saying that the closer a person gets to satisfying all the conditions of the definition, the more the person fits into the model of a social entrepreneur. And that those who are more innovative in their work and who create more significant social improvements will naturally be seen as more entrepreneurial. His definition can be stated as follows (Dees, 1998):

Social entrepreneurs play the role of change agent in the social sector by:

- Adopting a mission to create and sustain social value (not just private value),
- Recognizing and relentlessly pursuing new opportunities to serve that mission,
- Engaging in a process of continuous innovation, adaption, and learning,
- Acting boldly without being limited by resources currently in hand, and
- Exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created.

The two most important parts of this definition are: Change agent in the social sector. Social entrepreneurs are the reformers and revolutionaries that become an entrepreneur, but with a social mission. Drees highlighted that they make fundamental changes in the way things are done in the social sector. They attack the underlying causes of problems rather than just fixing them. They seek to create systemic changes and sustainable improvements. Adopting a mission to create and sustain social value. 'This is the core of what distinguishes social entrepreneurs from business entrepreneurs and even from socially responsible business. For a social entrepreneur, the social mission is fundamental. Profit is not the gauge of value creation; nor is customer satisfaction; social impact is the gauge. Social entrepreneurs look for a long-term social return on investment. Social entrepreneurs want more than a quick hit; they want to create lasting improvements. They think about sustaining the impact' (Dees, 1998).

Martin and Osberg (2007) defined social entrepreneurship as having the following three components: (1) identifying a stable but inherently unjust equilibrium that causes the exclusion, marginalization, or suffering of a segment of humanity that lacks the financial means or political clout to achieve any transformative benefit on its own; (2) identifying an opportunity in this unjust equilibrium, developing a social value proposition, and bringing to bear inspiration, creativity, direct action, courage, and fortitude, thereby challenging the

stable state's hegemony; and (3) forging a new stable equilibrium that releases trapped potential or alleviates the suffering of the targeted, and through imitation and the creation of a stable ecosystem around the new equilibrium ensuring a better future for the targeted group and even society at large. Mair and Martí (2006) have a simpler definition: First, we view social entrepreneurship as a process of creating value by combining resources in new ways. Second, these resource combinations are intended primarily to explore and exploit opportunities to create social value by stimulating social change or meeting social needs. And third, when viewed as a process, social entrepreneurship involves the offering of services and products but can also refer to the creation of new organizations.

2.9 Entrepreneurial Orientation

As mentioned before, the proposed model of EO can be thought of encompassing innovativeness, pro-activeness, risk taking, and persistence. Currently these dimensions have been understood in Western social contexts and/or in theory, based on Lumpkin et al. (2011), Morris et al. (2011), and Syrjä et al. (2013). The following diagram provides an understanding of how each of these terms have been comprehended in social contexts:



Figure 2-3: Dimensions of Entrepreneurial Orientation in Social Contexts

Source: Self-made with definitions from Lumpkin et al. (2011), Morris et al. (2011), Syrjä et al. (2013)

Increased innovativeness in a social enterprise has the ability to result in greater social value creation and new ways to address social ills. Innovativeness may encompass engaging in creativity and experimentation via the introduction of new products and services, or using research and development in new processes to further technological leadership (Lumpkin et al., 2011). Experimentation in social enterprise is quite natural, as social enterprises diverge from 'business as usual' because they realize that 'business as usual' does not satisfy their beneficiaries. Hence, experimentation in some form or another is needed to find novel ways to accomplish objectives. However, some forms of innovation may be suppressed, regardless of potential for value creation, if the ideas do not have a high 'degree of fit' with the organization's social mission.

Pro-activeness, on the other hand, is a dimension of EO that perhaps intensifies when applied to social contexts, as social issues and injustices demand attention and urgency. When needs are identified, ideally social enterprises will act early and quickly. However, when social missions are focused on long-term issues like poverty, the need to search for new opportunities or new needs may be diminished, and thus, pro-activeness may deteriorate. Also, pro-activeness and progress might be hindered in an environment where there is an abundance of social needs, because conflicts of priority might occur. This may become of particular relevance in the context of Cambodia, where numerous social ills have been documented.

Risk, or venturing into the unknown, is likely a requirement of pursuing social missions. However, risk taking in social ventures differs from risk taking in their commercial counterparts. Though economic risk is relevant, SE also must consider social risks such as damage to their organization's reputation and the possibility that their mission may be under- executed or their beneficiaries may not be served. The assessment of these nonfinancial risks may be difficult to undertake and miscalculations may happen,

resulting in an organization pursuing risk-taking behavior (either too much or too little) without knowing the real effects.

Another issue comes when looking at the developmental contexts of Cambodia. In high-risk atmospheres with weak business and legal institutions, firms may implement risk- adverse strategies as a method of compensation. Furthermore, limited resources and competencies may limit the ability for an enterprise to confront these risks.

Persistence is the least studied dimension of EO in social contexts, as it has not been included in conceptual studies by Morris et al. (2011) or Lumpkin et al. (2011). This dimension resulted from an empirical study by Syrjä et al. (2013), in which they found an overwhelming dedication to social missions by social entrepreneurs, and hence, a high level of persistence to achieve them. In the face of developmental contexts, where perhaps more roadblocks stand in the way, it is of interest to understand if this dimension is equally observable in social entrepreneurs in Cambodia.

2.10 Cambodia's Entrepreneurial Culture

Slightly more than three decades ago, upon the fall of the Khmer Rouge in 1979, Cambodia emerged from over thirty years of conflict that had devastated much of the country's population, infrastructure, and development. Suffering more than three decades of warfare was recognized to have destroyed most forms of social capital in Cambodia (Colletta & Cullen, 2000). Furthermore, it can be said that the Khmer Rouge 'extinguished entrepreneurship' throughout the anti-capitalism period (Kiesner, 2010). Violence and instability persisted until 1993, when the UN helped support a transition into democratic elections. Peou (2000) deemed the 'triple transition' from war, authoritarianism and command economy to peace, democracy and free market as the beginning of sustained economic growth, great social change, and the renewal of education and action geared toward life improvement.

One strategy that was used to boost the success of socio-economic growth in Cambodia was the enhancement of small and medium sized enterprises (SMEs) in the area. SMEs were used as a support industry to strengthen larger industries, as well as a renewed form of employment generation and sustainable growth (Shariff & Peou, 2008). Although the creation of SMEs in Cambodia is certainly recognized to be associated with 'excellent entrepreneurs' (Southiseng et al., 2008), this hardly captures the entrepreneurial spirit of the area in its entirety. In fact, as of 2012, Mendizabal et al. recognized that the informal economy of Cambodia remains the dominant means of livelihood for a great majority of the population. With perhaps up to ninety percent of the population reliant upon the informal sector, it is home to many individuals with entrepreneurial potential and skills (Heinonen, 2008).

The foundations of entrepreneurship are also being acknowledged and taught in Cambodian institutions of higher education, which is likely contributing to the EO of SE developers who have obtained higher education in the area. After the fall of the Khmer Rouge, education institutions underwent structural and substantive changes to facilitate learning of socialism concepts, language, technical knowledge, and trade (Chan & Latif, 2013). In 1997, university law was modified to allow for the establishment of private universities, thus contributing to a boom in the number of higher education institutions throughout the 2000s (Kitamura et al., 2015).

In tandem with the demand for a labor market able to withstand national and international pressures, higher education institutions began to teach the fundamentals of economics and accounting, management, marketing, and entrepreneurship. Currently, new educational goals have been established to provide students with greater knowledge and skills, as well as the capacity to innovate and create. Perhaps most interestingly, students are being taught to underpin these concepts with ethics and morality (Chan & Latif, 2013).

Regardless of the educational background of Cambodian entrepreneurs, or if they are choosing to operate in the formal or informal sector, it cannot be denied that entrepreneurship

as a whole is expanding in Cambodia. Such proof of this can be seen within groups and associations that have been formed to unite entrepreneurs such as the 'Young Entrepreneurs Association of Cambodia' and 'Cambodia Women Entrepreneurs Association'. Furthermore, the upsurge of social enterprise in the area seems to also corroborate the notion that entrepreneurs are instigating business, whether it be with economic or social bottom lines.

2.11 The Social Enterprise Sector in Cambodia

In Cambodia, much like the rest of the world, the social enterprise sector is on the rise. Social enterprise, in general, can be thought of as organizations that implement market-oriented economic activities to serve a social goal (Defourny & Nyssens, 2007). These non-traditional organizations are being cultivated by individuals with the aim to create positive social change, and thus improve the social, cultural, and perhaps economic situation in the post- conflict region. The growth of the SE sector in Cambodia coincides with a number of different phenomena. Cheng (2015) recognizes the intersection of 'government failure, market failure and voluntary failure' standing behind this upsurge. In particular he details problems relating specifically to NGOs and their limited organizational capacities:

- The global economic turndown, in tandem with decreasing aid support from international donors, is causing an increase in pressure to be able to survive and sustain financially, and is furthermore placing greater demands on NGO accountability.
- NGOs in the region are being criticized more and more for their relative

disempowerment rather than empowerment of their beneficiaries. Recognition of NGO interventions in education and training as having little linkage with the local economy is causing concern that they are keeping the poor and vulnerable in the same place.

There is a growing mistrust of the Royal Government of Cambodia from the NGO community, in part due to the 2008 Law on Demonstration, and drafting of legislation pertaining to Associations and Non-Governmental Organizations. NGOs are experiencing 'shrinking civil space for their activities', which is contributing to an increase in the role and responsibility of social enterprise.

The result of these changes has been a boom in the SE sector. However, Cambodia is no different than anywhere else in that differentiated notions of social enterprise exist, and consequently there is a high level of ambiguity regarding what does and what does not constitute a social enterprise. While little definitive information exists pertaining specifically to social enterprise in Cambodia, Lyne et al. (2015) set out to provide concepts and contexts, existing models, institutional trajectories, and relevant positioning of Social Enterprise in Cambodia. The following information, brought forth from their paper 'Social Enterprise in Cambodia: An Overview' must be considered when analyzing EO of social entrepreneurs in Cambodia.

Social enterprises in Cambodia are operating in a great variety of sectors and are aimed to serve different groups of beneficiaries. Education (1), health (2), child rights (3), community development (4) and agriculture (5) are the most represented sectors, with children (1), women (2), the general population (3), students and youth groups (4), and disabled persons, (5) among the top groups of beneficiaries (Lyne et al., 2015). For the most part, annual budgets are not large, with about forty percent of social enterprises operating under 100,000 USD per year (Lyne et al., 2015). Social enterprises in Cambodia

can be placed on a spectrum from 'socially-committed regular enterprises' to 'NGOs' (traditional or not-for- profit SEs), with 'hybrid SEs' being the most common, with a share of between 10-50 percent earned income in relation to organization's total income (Lyne et al., 2015).

NGOs are one of the driving forces behind social enterprise development in Cambodia. This is not of great surprise, as Cambodia has the highest NGO density per capita of any country in the world (Lyne et al., 2015). Currently, the majority of social enterprises in Cambodia are either operated by NGOs or registered as associations with the Interior Ministry of the Kingdom of Cambodia. However, registration with Cambodia's Ministry of Commerce (MoC) as a business is also a possibility. In regard to economic risk, Lyne et al. (2015) recognize that opting to register as a business instead of an NGO would imply exposure to greater risk, as NGOs don't have the burden of paying taxes. Furthermore, risk must be evaluated in terms of if SE developers are assuming risk with their own money or with other philanthropic funds. According to Khieng (2013), effective business management can be compromised when Cambodian NGOs initiate social business without committing personal resources, because it is not uncommon for the ventures to be entirely funded via philanthropic funds. Risk with donor relations may instead be lost, or, as with all social enterprises, social reputation may be compromised (Shaw & Carter, 2007). Though worth mentioning, the latter is less relevant for this research, as entrepreneurial orientation in this study relates to non- NGO affiliated social enterprises.

While the vast majority of social enterprises can be considered mission-driven with their enterprise activities aligned with their social program, social enterprises in the area vary greatly with regard to their model. When Lyne et al. (2015) placed SE within the East Asian SE typology developed by Defourny and Kim (2011), they found that most SE fit

into the 'trading organization' category as NPO's seeking to diversify their funding sources, followed by the 'work integration' social enterprise (WISE) group with a mission to create jobs for low qualified people. While the other models (nonprofit cooperative, nonprofit/for-profit cooperative, and community development enterprises) are less prevalent, they note that CDEs can have a high profile, reach many stakeholders, and are generally oriented toward social innovation (Lyne et al., 2015).

Lyne et al. (2015) identify three governance styles that can be found within social enterprises in the region, including corporate governance, dominant driving force (DDF), and democratic governance. Of these, DDF seems to be most prevalent, meaning one individual (likely the founder) is in complete control of the financial, directional, and managerial decisions.

Accountability issues also seem problematic, as one would think that most social business would be primarily accountable to beneficiaries, though only 16 percent of organizations ranked them as the principal stakeholder group. This is not to say, however, that the organizations don't consider beneficiaries as a second or third priority. Perhaps the failure to rank beneficiaries as the single most important group is due to the five recognized 'forces at work in the institutionalization of SE in Cambodia' (Lyne et al., 2015, p. 16):

- "Governmental policy and international development institutions (World Bank, Asian Development Bank, UN Agencies);
- NGO and CSO coordinating institutions within Cambodia;
- International civil society, including social entrepreneurship foundations (Skoll, Schwab, Ashoka), bilateral agencies (GIZ, SNV International) and international NGOs;
- Impact investment platforms (Insitor, Arun, Uberis, Asia Impact Exchange);

• Private sector institutions, including the Cambodia Chamber of Commerce."

Accountability to the third sector, paired with the changing funding landscape in Cambodia, increases the pressure for Cambodian social enterprises to not only sustain their existence, but also to perform well. Having a social mission central to one's business does not prevent complications and inefficiencies that need to be overcome. In fact, shortcomings of the social enterprise sector have been well documented, and particular limitations have been found in regard to SE operating in developing regions. Hanley et al. (2015) document a number of issues in their article 'Taking the Pulse of the Social Enterprise Landscape in Developing and Emerging Economies':

- Social enterprises that operate in the direct provision of 'basic goods and services' are underrepresented in social enterprises that have been on the receiving end of social investment (p. 6).
- Social enterprises must have a focus on 'target' customers that have the finances to pay, and thus contribute to the SE's financial stability. Unfortunately, this can impede them from serving the bottom of pyramid (BoP), or the lowest income tier (p. 6).
- Social investors use educational background and prior work experience as a signal to invest. This, however, excludes critical opportunities to obtain important knowledge from low-income entrepreneurs with perhaps a weaker or more limited educational background, but who certainly have the ability to help develop solutions for their surrounding communities (p. 6).
- Social impact measurement has been a critical issue for the SE sector and continues to be a key challenge in the SE landscape (p. 7).
- Intra-organizational processes have difficulty in aligning their activities with social impact metrics, or simply choose not to (p. 7).

 Nonprofit social enterprises are all too often relying on a single funding source, putting themselves in a compromising position should anything impede the existing funding stream (p. 30).

Though the above observations are not tied directly to the problems of social enterprise in Cambodia, it can be expected that some of these conditions prove true likewise. Arguably, gaining a better understanding of EO in the context of social enterprise developers in Cambodia will help to recognize how some of these challenges can be faced and eventually overcome. Understanding EO can mean understanding how innovation can be used to reach the lowest income tier or diversify revenue streams, and understanding risk better may mean boosting knowledge of how social impact measurement is approached in Cambodian SE.

2.12 Social Enterprise Vs. Social Entrepreneurship

As discussed in the previous section, the social enterprise sector is up-and-coming in Cambodia. Research on the topic is beginning to follow, along with interest groups and associations aimed at uniting SE developers. While the social ambitions of such organizations give an overall positive attitude towards SE, the developers that stand behind them undoubtedly have diverse motivations, outlooks, and skill sets, and thus partake in business and contribute to their local communities in diverse ways. One such distinction must be made in the depiction of social enterprise developers as social entrepreneurs, because despite the similarities between social enterprise and social entrepreneurship, the terms are not interchangeable. Consequently, not all social enterprise developers will have a recognizable propensity toward EO. For the purpose of this study, EO in social contexts is examined, and thus it is necessary, at best, to distinguish those who identify more with social enterpreneurship above social enterprise development.

The organization Social Enterprise Cambodia, an initiative of Impact Hub Phnom

Penh, represents an organization working in close proximity with existing social enterprises operating in Cambodia, and that actively seeks out registration and recognition of social enterprises in the region. SEC also goes on to express its 'love for the power of social entrepreneurship' and its aim to 'tell the world about the incredible work of social enterprises operating in Cambodia today' (About Social Enterprise Cambodia, 2016, About Us para. 1). The SEC website, in its Frequently Asked Questions, poses the query, "Who can be a social entrepreneur?" providing the following as an answer:

"The dictionary definition of a social entrepreneur is 'a person who establishes an enterprise with the aim of solving social problems effecting social change'. However, we feel this lacks passion, so let's turn to Ashoka (the largest network of social entrepreneurs worldwide) who say that '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 wide-scale change'. Schwab Foundation say that 'social entrepreneurs drive social innovation and transformation...they pursue poverty alleviation goals with entrepreneurial zeal, business methods and the courage to innovate and overcome traditional practices.' Pamela Hartigan at the Skoll Centre for Social Entrepreneurship says that 'social entrepreneurship is about disrupting the status quo in an effect to achieve transformational social change'" (About Social Enterprise Cambodia, 2016, FAQ para. 2).

The latter demonstrates SEC's recognition of some of the foundational tenets of entrepreneurship- innovativeness, pro-activeness, and persistence- but also shows how these terms can be merged into the same category, often using 'social enterprise' as an "umbrella term for any organization that innovates or trades for a social purpose" (Ridley-Duff & Bull, 2015, p. 1). "Clearly, social enterprises and social entrepreneurship share

many commonalities: both blur the boundaries between for and not-for-profit activities and combine commercial activities with social objectives" (Luke & Chu, 2013, p. 765). It is of no surprise that the positive social change and transformation pursued by both social enterprise and social entrepreneurship is encouraged, endorsed, and occasionally idealized (Dacin et al., 2011). Nevertheless, the concepts are often oversimplified, and important distinctions are overlooked, such as the difference between *innovating* and *trading for social purposes*. Some of the important distinctions between nonprofit organizations, social enterprises, and social entrepreneurships are laid out below:

	Non-profit organisations	Social enterprises	Social entrepreneurship
Identity	Express non-profit focus	Business with a social purpose Mix of non-profit and forprofit activities (Dart, 2004)	Innovative and commercial activity with a social purpose Change agent (Leadbeater, 1997)
Objective	Pro-social mission (Dart, 2004)	Double bottom line involving social mission and financial sustainability (Emerson and Twersky, 1996)	Creating positive change through innovative, novel products, services and/or processes (Bornstein, 2004)
Operations/ norms	Traditional 'charity' role (Dees, 1998b)	Business-like approach involving planning, trade and revenue streams (Dees, 1998b)	Social activities with a focus on innovation (Defourny and Nyssens, 2010; Weerawardena and Sullivan Mort, 2006)
		Formal and informal trading; cash and non-cash transactions (Barraket et al., 2010)	,

Figure 2-4: Distinctions between Nonprofit, Social Enterprise, & Social Entrepreneurship Source: Luke & Chu, 2013, p. 767

Social entrepreneurship, in its most general form, denotes to a mindset that can have significance in any business and any setting, including the for-profit, nonprofit, or hybrid organizations that blend these approaches (Roberts & Woods, 2005). "Social entrepreneurship activities seek to create social value through innovativeness, risk management, and pro-activeness bounded by a social mission, sustainability, and the contextual environment" (Lumpkin et al., 2011).

Eighteenth century businessman Richard Cantillon first recognized entrepreneurs as 'undertakers' engaged in market exchanges at their own risk for the purpose of making

a profit. In the early ninetieth century Jean-Baptiste Say later embedded value creation into this idea when describing entrepreneurs as those who "shift economic resources out of an area of lower and into an area of higher productivity and greater yield" (Martin & Osberg, 2007, p. 31).

Cantillon and Say laid the foundation for abundant research in the field of entrepreneurship, including the formation of three key concepts: "the German tradition built on the work of Joseph Schumpeter with an emphasis on innovation, the Chicago tradition of Knight and his work on risk, and the Austrian tradition of Israel Kirzner and his exploration of alertness to opportunity" (Roberts & Woods, 2005, p. 46). Acknowledgement of these core qualities that are attributed to the term entrepreneurship, and thus applicable to its sub-division of social entrepreneurship, must be distinguished from that of 'social enterprise' in order to avoid misguided recommendations (Luke & Chu, 2013).

The term 'enterprise', on the other hand, is linked to commercial business activity, signifying that social enterprises exemplify a form of social business or venture. Social enterprises can be looked at as companies that confront social and environmental challenges, creating jobs while prioritizing impact over and above economic profit (Darko & Koranteng, 2015).

Social enterprise, operating in the contexts of high unemployment and deep social problems, can simultaneously assist with economic development and the creation of jobs, while tackling social and environmental matters (Darko & Koranteng, 2015). Although the social enterprise sector suggests an innovative response to the recognized market gap between the public/ nonprofit and private/ for-profit sectors, it is questionable to as to whether all social enterprises are necessarily entrepreneurial (Luke & Chu, 2013). Hence, the rise of the social enterprise sector in Cambodia does not necessarily qualify as an

increase in EO in the area as a whole, or even amongst its developers.

In consideration of the aforementioned, this research seeks to study non-NGO affiliated social entrepreneurs in Cambodia. Secondary research has demonstrated that NGOs are the primary cultivators of SE in efforts to diversify revenue streams. This represents a somewhat outside-in approach to the creation of enterprise, in a sense demonstrating that the need for an ulterior form of income overrides the true recognition of a market opportunity and the willingness to take risks to exploit this opportunity. While the development of a commercial business activity certainly corresponds with the 'enterprise' aspect of SE, the 'entrepreneurship' characterization is more questionable. Furthermore, the fact that NGOs are often creating enterprise entirely from philanthropic funds potentially warps the risk dimension of EO. Risk-taking behavior of NGO-affiliated social enterprise may be unusually high, as no personal funds are at stake. Moreover, the overarching NGO may have a dominant influence on all actions and decisions made by their corresponding social enterprise, hence moderating or curbing EO in the social enterprise. It is assumed that the study of non-NGO affiliated social enterprise may align more with the 'entrepreneurial' aspect of social entrepreneurship, and thus be better suited for the study of EO. Whilse interesting to examine, the study of EO in NGO-affiliated social enterprise lies outside the scope of this study. This represents an area for future research.

It must be noted, however, that research within the somewhat grey area of enterprise and entrepreneurship, particularly in a region that lacks formal definition of such constructs, proved to be difficult. Guidance from experts in the area helped to point the way toward non- NGO affiliated social enterprises. Furthermore, a database cataloguing social enterprise in Cambodia helped to locate social enterprises that have no current NGO affiliation. In-depth interview questions included whether or not enterprises

had any NGO affiliation, and if so, what was the existing relationship. Various nuances were found in that a few cases were first developed with the help of an NGO but no longer affiliated. Other relationships included organizations that had not been established by an NGO but had formed cooperative partnerships for hiring and networking purposes.

2.13 The Context of the Research

The Kingdom of Cambodia is one of the ten nations that make up Southeast Asia. Cambodia has a geographic area of 181,035 square kilometers and it has a 443 kilometers coastline on the Gulf of Thailand (CIA, 2016). It is bordered by Thailand on the West, Vietnam on the East, and Laos and Thailand on the North. The Mekong River divides the country from North to South, and ultimately flows into the Mekong Delta of Vietnam. On this river resides Cambodia's largest city and capital, Phnom Penh. Other well-known cities in Cambodia include Battambang, Siem Reap, and Kampong Som. The country has an estimated population of 15,708, 756 persons, with 31.43 percent being under the age of 14, and 19.71 percent being between 15-24 years old (CIA, 2016), reflecting a noticeably young age demographic.



Figure 2-5: Map of Cambodia Source: Welcome to Cambodia 'Kingdom of Wonder', n.d.

2.14 The Socio-Economic and Business Situation in Cambodia

Cambodia's unique history has contributed to a distinctive socio-economic atmosphere and business climate that should be understood for the purpose of this study. While much of the last century was marked by war and isolation from international markets, in 1993, Cambodia held an election that was overseen by the United Nations and the transition toward a full market economy began (Chhair & Ung, 2013). Cambodia joined the ASEAN Free Trade Area in 1999, and later the World Trade Organization (WTO) in 2003.

For the last two decades Cambodia has seen strong economic growth, with the primary drivers of the economy being the garment sector, construction sector and services sector (World Bank, 2016). Since the turn point in 1993, however, Cambodia's market economy has been heavily dependent on foreign capital and foreign markets. This has resulted in substantial economic growth, yet low linkage to the domestic economy (Chhair & Ung, 2013).

In tandem with this economic growth, poverty has continued to fall year by year. Unfortunately, however, those who have managed to escape poverty have done so only by a slight margin, and accordingly, over eight million individuals are 'near-poor' (World Bank, 2016). With the economic hub being Phnom Penh, the countryside homes the majority of Cambodia's poor. It is recognized that Cambodia continues to struggle with a number of issues and developmental challenges such as "weak public service delivery, which impedes inclusive development, ineffective management of land and natural resources, environmental sustainability, and good governance" (World Bank, 2016). The government does not display the ability to generate surplus revenue for essential public spending and investment or the aptitude and willingness to use available resources accountably.

It is without question that the contextual environmental of Cambodia has affected its business climate. While estimates regarding size and number of enterprises in Cambodia differ from source to source, Chhair and Ung's (2013) report of Economic and Industrialization in Cambodia suggests that micro-establishments make up the majority of the total enterprises in Cambodia, with 2011 estimates citing that 92 percent of all establishments are micro- establishments. On the other hand, however, large industrial establishments held a share 65.50 percent of employment, with an estimated 78 percent of value added generated from these firms (Chhair & Ung, 2013). "This suggests that the foundations for large industry are strengthening while micro, small and medium industrial establishments are struggling to survive" (Chhair & Ung, 2013, p. 14). Much like the population of Cambodia, the majority of firms in Cambodia are young. It is estimated that 55 percent of industrial firms have been in operation for less than five years (Chhair & Ung, 2013).

Cambodia can also be considered a place that is relatively accessible for foreign enterprises. It is recognized by Investing Across Borders Indicators that the country is more open to foreign equity ownership than other countries in the Asia and Pacific region, allowing for one hundred percent foreign ownership of companies, unlike some other nearby countries in Southeast Asia (World Bank, 2014). When looking at current local versus foreign ownership trends, it can be seen that ownership structure varies by size of establishment and subsector. In 2011, Cambodians owned almost all microestablishments, yet only own 37 percent of large industrial establishments (Chhair & Ung, 2013).

On the other hand, it is estimated that Chinese owned up to 47 percent of large industrial establishments and 12.5 percent by Koreans and other Asian nationalities. In the same year, Cambodians occupied 90 percent ownership of medium and large industrial

establishments in the food, beverage, and tobacco (FBT) sector. However, in the textile, wearing apparel and footwear (TWF) sector, Cambodians only owned approximately 41 percent of establishments, as compared to the Chinese at 48 percent (Chhair & Ung, 2013). According to Chhair and Ung's (2013) analysis, trends show that although Cambodian ownership in traditional sectors remains forceful, there is not enough strength or vigor to engage in new industries.

An enterprise survey in 2007 cited the top three challenges to operating a business in Cambodia as corruption, electricity, and political instability (World Bank, 2014). As a testament to corruption, "61.2 percent of firms report having to give gifts to public officials to "get things done", compared to the regional average of 24.7 percent" (World Bank, 2014, para. 2). On a positive note, however, in 2015, Cambodia was reportedly one of two economies worldwide that recorded a reform to improve electricity reliability (World Bank, 2015). Cambodia was also recognized to have reduced the time it takes to start a business and

the number of required procedures to follow.

2.15 Positioning Cambodia in Terms of Entrepreneurial Orientation (EO) Model

Information in the previous section provides a small window into the business and socio- economic climate in Cambodia. While much more information exists regarding the economic development of the country and the positionality of social and commercial enterprises within it, this section aims to provide and brief understanding of how the contexts of Cambodia differ from developed nations. The dynamics of entrepreneurship can range greatly according to institutional context and level of economic development (Acs et al., 2008).

Comprehending the differences between developed and developing nations feeds into the questions regarding if the proposed model of EO and its dimensions can be

considered the right 'fit' for development contexts. The majority of both EO and social enterprise theory has been constructed within the United States and Europe, and tested within Western contexts. Findings have then been carried over to studies in developing economies, and the EO construct, for the most part, has been unchanged in these studies.

As compared to the highly developed countries of the USA and UK, as well as the nearby country of China, profound differences in the contextual atmosphere of Cambodia are clear. These must be taken into consideration when evaluating if the proposed model of EO fits with Cambodian contexts, of if other dimensions of entrepreneurship may underpin enterprise success. The Cambodian context in this sense serves as an excellent ground to explore the ubiquity of 'high entrepreneurialism', and if Western understandings of EO may need to be revamped for use in developing economies like that of Cambodia.

2.16 Summary and Research Gaps

Numerous studies have identified the importance of a healthy entrepreneurial ecosystem in stimulating and sustaining innovation and entrepreneurship. Local entrepreneurial ecosystems are made up of both formal and informal institutions, which include legal, economic, institutional, political, social and cultural factors. As well as providing various supports, including funding and incubation programs, higher education institutions create a space at the soft skills level that inspires entrepreneurial spirit and influences entrepreneurial orientation. Yet, although some studies have explored the development of the digital startup ecosystem and the role of universities in such development, meaningful literature and research overviewing the entrepreneurship and innovation landscape in Cambodia beyond the technology sector is lacking. This review of related studies addresses knowledge gaps in academic and policy debates that often failed to fully capture the dynamic and rapid development of the entrepreneurial ecosystem in Cambodia over the past five years. It presents and analyses qualitative data collected from

semi-structured interviews with startup founders, business and academic leaders involved in entrepreneurship centers and innovation and entrepreneurship education in Phnom Penh, Cambodia.

We found that the informal and micro nature of entrepreneurship in Cambodia necessitates professional development and education in business and management skills for entrepreneurs to grow their business. Universities are a pivotal actor in this regard, but experiences in France, Mexico, Singapore and the US show that it takes about two decades for university-based ecosystems to mature. Also needed is corresponding policy to ease transition from small entrepreneurial venture to more formal and high-growth oriented enterprise. This, in turn, calls for coordinated efforts by various policymaking bodies to strengthen entrepreneurship education.

Although research into Cambodia's social enterprise sector is somewhat limited, there is little doubt that the region embodies the developmental characteristics that bring new knowledge to the entrepreneurial orientation arena. While an investigation into the entrepreneurial orientation of Cambodian social entrepreneurs surely cannot be generalized to other developing nations, it can help shed light on how complicated development contexts may or may not have an additional influence on entrepreneurial orientation in social contexts.

Furthermore, as management theories are culturally bounded, clarifying the extent to which entrepreneurial orientation theory rings true in the context of social enterprise in Cambodia helps to establish boundary conditions of entrepreneurship theory (Rauch et al., 2009).

CHAPTER III

RESEARCH METHODOLOGY

This part of the dissertation study provided the detailed research methodology that has been used in this research study. This encompasses the selected research strategies, the research population, and data collection techniques and analysis.

3.1 Overall Research Strategy and Approaches

A mixed methods research design has been used to explore and effectively answer the research questions provided in Chapter 1, as well as to reach more reliable conclusions on the value of enterprise incubators and the specialized economic growth centers or economic poles to Cambodia as a country undergoing transition from being "underdeveloped" to that of "developing" economy, which are as follows:

- What is the effect of incubator programs on the success of social and commercial enterprises that are operating around specialized economic growth centers and economic poles in Cambodia?
- What extent does the support of those programs lead to a positive impact in Cambodian entrepreneurial orientation for business incubators?
- How do non-NGO affiliated social entrepreneurs in Cambodia operating near or within the specialized economic growth centers and economic poles exhibit entrepreneurial orientation in their pursuit of their social and economic missions?
 - ➤ How is innovativeness being approached and/or achieved?
 - ➤ How is pro-activeness being approached and/or achieved?
 - ➤ How is risk taking being approached and/or achieved?

- ➤ How is persistence being approached and/or achieved?
- ➤ Are there any additional dimensions of entrepreneurial orientation being demonstrated? If so, what are they and how are they being approached?
- How does the entrepreneurial orientation of non-NGO affiliated social entrepreneurs compare to the entrepreneurial orientation of commercial entrepreneurs in Cambodia?
- Is there a relationship between certain cultural and organizational characteristics of social and commercial entrepreneurs and their entrepreneurial orientation that are operating around specialized economic growth centers and economic poles?
- Are there contextual qualities affecting the proposed model of entrepreneurial orientation and its adoption in Cambodia?

This study has also assessed the current landscape of the tech innovation sector, in two growth centers in Cambodia: Phnom Penh and Siem Reap, to identify the needs and opportunities for support programs. In assessing the sector, analysis have been undertaken on the changes in the tech innovation landscape in the two (2) growth centers of Cambodia including entrants, significant actors that have contributed to growth, funding mechanisms, popular modalities, and programs using both secondary data and primary data. Some of the guiding research questions that were used for this part are as follows:

- Who are the key actors and influencers? Are they Cambodian or expat?
- How do they define their role in the sector?
- What are services and supports they provide?
- When was the support program founded? What needs was the program addressing?
- Are they still operational? If not, why?
- How are they funded?
- What stage of innovations do they support?

- Who is their beneficiary/constituency?
- What learnings have the support program had in the past years?
- In their observations, how have the attitude and approaches toward tech innovation,
 ICT uptake, and entrepreneurial mindset that has evolved? To what factors do they attribute these changes?

The mixed methodology comprised of secondary data research through Google research, as well as primary research thru the use of semi-structured in-depth research interviews paired with a quantitative survey (in Likert-scale instrument), using convenience sampling technique and quota sample. Focus group discussions were also undertaken, with limited participants because of COVID 19 pandemic.

The study also identified and mapped actors that provided technology innovation support programs, services, and supplies to spur the creation and scale-up of technology-enabled solutions for both **social innovation** for social enterprises and private ventures business incubation. **Social innovation** here is defined as trying something new to improve results that can take three main forms:

- Creating new tools or solutions;
- Applying existing tools or solutions differently; and
- Applying an existing tool or solution to a new context.

On the other hand, the qualitative semi-structured Key Informant Interviews (KIIs) have also been conducted to provide rich and meaningful insights into the perceptions surrounding the complex innovation and entrepreneurship ecosystem in social and commercial enterprises and business incubators in Cambodia. Both comparative and contrasted conclusions have been drawn from the KIIs, with participants underscoring both negative and positive dimensions of the innovation and entrepreneurship ecosystem. These KIIs have targeted at least ten (10) informants such as CEOs, directors, experts,

startup founders, and entrepreneurs based in Phnom Penh. These elite Key Informant Interviews were undertaken on a face-to-face, despite the COVID 19 pandemic, so that observation can be made on the environment and contexts of their businesses and organizations. However, standard protocols to protect the safety of the person interviewed, the researcher and his assistant were considered and observed during the entire research process.

The information that have been obtained from these mixed methods were used in a complementary fashion and triangulated to ensure greater measurement accuracy. The methods were used sequentially, with the PhD candidate first gathering cultural and organizational data from a single respondent, followed by an in-depth interview with the respondent. Upon the completion of the interview, the researcher distributed a Likert-type survey to the respondent, which were completed on the spot, although there were some respondents that have asked submission of their questionnaires the following day.

Both the interviews and the surveys have relied mostly on the managerial perceptions of the respondents on their organization's entrepreneurial orientation (EO) as a business incubator. Managerial perceptions of EO are recognized to have a relatively high degree of validity, as a researcher can develop questions that target the fundamental nature of any of the four cited EO constructs (Lyon et al., 2000). According to literature, surveys can be used to augment construct validity, and scaled items that require a response are thought to boost validity even further (Lyon et al., 2000).

Another advantage of using managerial perceptions is the ability to measure current conditions in a given organization with a high degree of specificity. However, while interview questions can result in a great amount of descriptive qualitative data, perceptions that have been gathered via interview rather than survey are thought to reduce validity due to confusion in the interpretation of open-ended responses. By implementing

both interview and survey tactics, content validly as a whole has likely increased and discrepancies have been more recognizable.

In-depth semi-structured key informant interviews have also been used to address the 'how' aspects of the EO construct to the various commercial/social enterprises as business incubators. As Lyon et al. (2000) suggest, "in-depth case analysis better captures the inherent richness of entrepreneurial processes and behaviors", and managerial perceptions of business incubators in their entrepreneurial orientation (EO) can provide greater information regarding the explanation of entrepreneurial processes (p. 1078).

An email has sent to prospective respondents in advance in order to help respondents prepare for the interview. Follow-up telephone calls were made to confirm the date and time of the scheduled interviews and surveys. Upon completion of the interview, a carefully prepared rapid assessment survey regarding entrepreneurial orientation of business incubator was administered to each of the individuals that were interviewed. The use of scales with standardized responses has been considered as particularly useful in the study, as they aided with uniform interpretation and improved comparability.

3.2 The Research Population

The population of organizations that has been taken into consideration included the following:

- Non-NGO Affiliated Social Enterprises (i.e. either introduced by locals or introduced by non-locals); and
- Commercial Enterprises (i.e. either introduced by locals or introduced by non-locals).

The sample of social enterprises for this research study has been initially collected from the **Impact Hub database** of social enterprises operating in Cambodia. More specifically, this database included the business name, associated NGO, location, business

sector, and business goal. It is also intended that the sample would be diverse and be comprised of different sectors.

Other respondents were taken from SHE Investments (Support Her Enterprise Co. Ltd.), which is a business (social enterprise) that designs and delivers the only business incubators for women in Cambodia.

It has been noted that obtaining an equal number of respondents from each of the above population groups were undertaken. Furthermore, joint ventures between locals and foreigners have also been taken into consideration. In-depth discussions regarding the respondents' relationships to Cambodia were also recorded in order to comprehend various nuances as such.

The long-list of the organizations that were consulted and surveyed for this study are listed in **Appendix D.** However, the short list of participants from each organization that were actually interviewed were withheld for confidentiality, as agreed with the respondents.

3.3 Framework for Identifying Tech Innovation Actors in Phnom Penh and Siem Reap

This research utilized the "Framework for Analyzing Urban Innovation Ecosystem", developed by Mulas et al. (2015), for the identification of actors and organizations relevant to the tech innovation sector in Phnom Penh and in Siem Reap. The framework identified four key properties relevant to innovation ecosystems—people, infrastructure, economic assets, and the enabling environment— and revolves around the hypothesis that connections and communities are key success factors for ecosystem growth and sustainability. Networking assets—defined in this framework as a community building events, skill training events, collaboration spaces, and networking of mentors—are needed to create and sustain these connections and communities.

This research has also identified the following stakeholder groups and ascertained their roles, relationship, and contributions:

- **Tech innovator / Entrepreneur:** Individuals (affiliated with a business or NGO) who adopt the innovative use of technology and are 'disruptive'
- Thought Leader / Mentor: Individuals whose work, skills and interests support the expanded use of technology innovation for development and entrepreneurship. Mentor and thought leaders are part of a network, community, or support program.
- Education and research: Institutions that teach skills, expose young people to technologies, research in newer technologies and sciences, and may promote and support incubator programs
- **Startup:** Entity with 0-5 years of operation, revenue-generation, innovative use of technology, and is 'disruptive'
- **Firms:** Technology and business service providers that offer consultation services, research, and design work related to tech innovation
- **Civil Society Organizations**: Organizations that provide tech-related services and tools for social impacts
- Funder / Investor: Donors, angel investors, commercial investors, challenge funds, other financial institutions that support tech innovation programs and tech startups
- **Government:** Government entities that promote the growth of the tech innovation sector
- **Media:** Media platforms sharing information and stories about innovation, technology, and entrepreneurship

3.4 Limitations in the Conduct of the Actual Study

This research identified and mapped the actors in Phnom Penh and Siem Reap, Cambodia, that provided tech innovation support programs, services, supplies, namely: major community building events, skills training programs, education and research institutions, co-working spaces, innovation lab, design labs, makerspaces, incubators and accelerators, institutional funders and investors, and industry network and associations.

It also analyzed the changes in the tech innovation landscape in two (2) growth centers in Cambodia (i.e. Phnom Penh and Siem Reap) including entrants, significant factors that have contributed growth, funding mechanisms, popular modalities, and programs.

This research has not been intended to 1) produce a network analysis, or 2) map startups, entrepreneurs, mentors, and individual investors. It, however, attempted to ascertain patterns of the aforementioned actors' engagements and relationships with entrepreneurial support programs, space and hubs, networks and associations, and institutional investors and funders. This research study did not use competitive landscape analysis.

3.5 Data Collection Process

As provided in previous sections of this Chapter, this research study has utilized the collection of information from desk research and primary data from key informant interviews (KIIs), survey questionnaires, and focus group discussions.

To develop a list of key actors and map their entrance to the tech innovation sector, the study has undertaken a comprehensive desk review of publicly-available reference tools and documents available from the internet, associations, NGOs, or other organizations.

Various literature on start-up business incubation have been accessed. Design Kompany/CONPATH's Innovation Hubs map has also been accessed in order to get the researcher's personal knowledge in the industry. For this research, data from Design Kompany/CONPATH and Startup-Cambodia has been collated, cross-checked, and validated. Relevant actors have also been re-categorized based on this study's stakeholder groups which are defined in details with examples in **Appendix E**. Relevant and emerging

key actors who were not listed in these two sources have also been identified through additional desk research from IMPACT Cambodia, SHE Foundation, Emerging Markets.

Temporal data about key actor entrance to the sector and major community building events have been extracted from each actor's website, official social media page, or other publications.

Qualitative and contextual data have also been collected via key informant interviews (KIIs) to inform the analysis of trends, gaps, and opportunity in the sector. KIIs have ben semi-structured, and the protocol for each differs depending on key informants' roles in the sector (see Appendix C). KIIs have also addressed not only knowledge and general perceptions, but more importantly probed individually for specific examples of attitude and behavior change, patterns of startup journeys, and perceptions of trends, gaps, and opportunities in the tech innovation sector.

On the other hand, social enterprises operating in Phnom Penh have been first contacted, which were followed by a second wave of interviews in the Siem Reap. These interviews have been conducted face-to-face despite existing pandemic situation of COVID 19. All known non-NGO affiliated social enterprises in Siem Reap and Phnom Penh have also been contacted, and interviews were conducted with representatives of enterprises.

The sample of commercial enterprises for this research has been initially collected from enterprises that are using Impact Hub as a working space. Likewise, SHE Investments has been contacted to recommend possible entrepreneurs and business incubators. Other sources of respondents were from the startups listed in Start-up Cambodia directory and shared with the startup communities at Small World Cambodia and Impact Hub Phnom Penh.

The member directory on the website of the 'Young Entrepreneurs Association of Cambodia' were also used as a source of contact information for commercial entrepreneurs

in Phnom Penh and Siem Reap.

During the interview and rapid assessment surveys 'all top decision-makers' were invited to participate in an interview. The participants in the interviews and surveys included founders, owners, or managers. It has been assumed that by having all founders present, information regarding the dependent variable (EO) would likely be enhanced and the organizational and cultural characteristics (predictor variables) of the organization and its founders will be better understood. Furthermore, this method has eliminated single respondent bias and error, a recognized shortcoming of measuring EO from managerial perceptions (Lyon et al., 2000).

A total of 20 enterprises have been initially target for interview. Each face-to-face meeting has taken place in three stages; 1) collection of organizational data, 2) in-depth interview, and 3) completion of quantitative survey. The interview guidelines including the organizational information, interview, and survey questions are provided in **Appendix A.**

Semi-structured interviews were carried out using an interview guideline comprised of 22 questions. Occasionally other questions were omitted if the respondent has already answered the question previously in the interview. Interviews is expected to last on the average for 1.5 hours, though they will be ranged from 45 minutes at the shortest to 2.5 hours at the longest. Interviews typically has taken place at the location of the given enterprise, while others were done in a coffee near the enterprise to make it convenient to the interview participant. Each of the same respondents from the interview were asked fill out the survey form. These forms where be collected by asking each one of them to transmit their completed questionnaires at the time of the interview or collecting them the following day. In these cases, the mean of the scores have been used for the overall SPSS analysis, accounting for a single EO score for the enterprise.

All research records have been kept confidential. Consent were sought from all

participants after informing them of the purpose and timescale of the research. Each participant was informed that he or she has the right not to participate, he or she has the right to discontinue at any time, and that all information will be kept confidential.

3.6 Level of Aggregation

Because entrepreneurship is often connected to the introduction of some sort of new revolutionary invention such as business incubation, some recognize it to be only relevant to the level of an individual. Other theorists relate it to the small business domain, as they stimulate substantial economic growth and new job creation by tapping into new markets. Corporate level entrepreneurship has been more recently emphasized as a method of growth and strategic renewal for larger firms already in business. Hence, when discussing the EO construct, a level of analysis and level of aggregation must be established, specifically in Cambodia.

Under this perspective, a variety of social and commercial enterprises has been taken into the sample. Secondary research, however, suggested that most firms in Cambodia are small. That being said, the aforementioned understanding of EO plays into the level of aggregation established for data collection and analysis.

This study made the methodological decision to employ data relating to topdecision makers within a given enterprise, and the methods, practices, and decision-making styles that are implemented within that given enterprise. Under this assumption, a group of top decision- makers influence each other, and thus, have a joint influence on the EO of the firm. Recognizing this perspective is the central focus to the research design of this study.

Predictor variables have been recorded at the firm-level, rather than at the level of the respondent. For example, rather than consider the age of the individual respondent, the age of the company has been taken into consideration. Rather than note if the individual respondent is foreigner or Cambodian, the study controlled for the origins of the total group

of top decision-makers. Likewise, gender and education-level have been controlled in the same manner.

Due to this firm-level perspective, respondents were instructed to answer interview and survey questions about the specific enterprise, not about other ventures that the individual may have been involved with. This meant that survey questions such as the 'number of new product and services' referred to the number of new products and services introduced by that specific (social or commercial) enterprise, rather than the number of products and services created in all ventures that the entrepreneur had previously been involved with.

3.7 Design of EO Scale for Dependent Variable Measurement

The dependent variable that has been evaluated in the survey will be the *degree of Entrepreneurial Orientation achieved by a firm*. The design of an appropriate EO survey has been considered a critical matter as the number of unique EO scales have been used. In creating the scale, the aim is to develop a comprehensive set of items targeting the four dimensions of EO including risk, innovativeness, pro-activeness, and persistence, and thus provided a measure regarding the dependent variable of entrepreneurial orientation.

The rapid assessment survey that has been used in this study has been primarily adapted from the widely-used measurement tool, Covin and Slevin's (1989) bi-polar likert-style scale of EO. Bipolar scaling involves designing two statements or concepts that conflict with each other, with degrees of agreement in between the extreme poles. Three initial and somewhat complex steps are used to develop a bipolar scale: 1) determining what is to be measured 2) determining how many concepts must be evaluated and 3) determining the scales to constitute these measures.

In accordance with Covin & Slevin's (1989) bi-polar likert-style scale of EO, three questions were used to target each of the four EO constructs (risk, innovativeness, pro-

activeness, and persistence). Thus, a 12 likert-item questionnaire has been created, with each item measured on a 7-point scale. It is essential to understand the difference between a likert-item, which is a single statement in which the respondent is asked to evaluate some kind of subjective or objective criteria, and the likert-scale itself. The likert scale itself is the sum of responses of four of more likert-items that are combined into a single composite score during the data analysis process (Boone & Boone, 2012). Hence, in this study, the composite score of Entrepreneurial Orientation has been arranged in the range from the minimum score of 12 points (score of 1 on each of the 12 likert-items) to the maximum score of 84 points (score of 7 on each of the 12 likert-items). Likert scale data has been subjected to unique data analysis procedures.

In a few questions taken from the popular Covin and Slevin scale, complicated language was simplified to enhance understanding for non-native English speakers or to better fit local contexts. Examples of these minor changes and their reasons for change* can be seen below:

Original Covin and Slevin (1989) Likert Scale	Modified Likert –Item Used in this			
	Study/Survey			
How many new lines of products or services has your	Lately, how many new lines of products or services			
firm marketed in the past 5 years (or since its	has this enterprise tried?			
establishment)?				
*Language simplified for easier understanding and speci	ified time period removed due to the nature of			
Cambodian environment (many businesses are relatively new).				
In dealing with competitors, my firm Is very seldom	In dealing with competitors, my enterprise Is			
the first business in the sector to introduce new	rarely the first business in the sector to introduce			
products/services, administrative techniques, operating	new products/services, administrative techniques,			
technologies, etc.	operating technologies, etc.			
*Language simplified for easier understanding.				

Additionally, some of the Covin and Slevin (1989) questions has not been selected, and instead questions have been replaced with bipolar statements that are related to scales that have been specifically used in social entrepreneurial orientation (SEO) studies, such as that of Hu and Pang's (2013) study of SEO and Performance of Nonprofit Organizations in China. An example of this can be seen in the pro-activeness measure below:

Hu and Pang's (2013) Likert-item for Proactiveness

"SEO aims to achieve a position of leadership in similar organizations." (p. 3933.)

Strongly Disagree

1 2 3 4 5 6

Strongly Agree

Actual Likert-item to be used in this study:

In general, my

enterprise...

Is primarily focused on our own activities and less on our trend- setting position.

*Self-made as a bi-polar response.

Another significant feature of the scale that has been used in the study is the addition of the persistence measure, which previously had not been placed on any EO scale. As discussed earlier, persistence was placed on the scale in response to the suggestion of the Syrjä et al. (2013) study of social entrepreneurship to modify the dimensionality of EO by adding persistence. The persistence measure was built based from a number of scholarly literature sources that seek to define persistence, and in particular, the role of persistence in entrepreneurship. Syrjä et al. (2013) aligned with other scholars including Kanfer (1990), and Markman et al. (2005) in that "entrepreneurial persistence implies a firm and steadfast purpose in adhering to a course of action despite risks and difficulties" (p. 6). Wu et al. (2007) also provided much information about persistence in business in their article, *Need for Achievement, Business goals, and Entrepreneurial Persistence*. In their study, persistence was measured using a single question in which participants were asked if they are continuing to pursue the ideas that they had selected three months earlier. Based on the above definitions, the following three persistence measures were created:

PER1	Generally,				
	Decision-makers at our	1234567	Decision- makers at our enterprise		
	enterprise prioritize economic		spend an extensive amount of time		
	efficiency when allocating time		and personal dedication in efforts to		
	and labor to a given project.		make our ideas come to life.		
PER2	2 When it comes to risk and difficulties				
	My enterprise has changed our	1234567	My enterprise has maintained our		
	original purpose and the		original purpose and the		
	corresponding course of action		corresponding course of action,		

	in response to risks and		despite risks and difficulties.			
	difficulties					
PER3	For most part, new ideas, products and services developed or thought about 3-					
	12 months ago are					
	Disregarded if they presented	1234567	Still being pursued, even if they			
	little profit or success		have presented difficulties or			
			hindered profits along the way.			

3.8 Data Analysis

Desk research data have been screened and cross-checked to develop a timeline mapping of the entrance to the tech innovation sector. In-depth interviews have been screened, coded, categorized, and analyzed for themes and trends. Survey questionnaire data have been screened and analyzed to gauge perceptions on the barrier to innovations and to ascertain the relationship between entrepreneurs and mentors with support programs.

The following sections provide an overview of the software tools that have been used to analyze data. This includes decisions that have been made regarding coding structures for qualitative data, as well as details pertaining to the analysis of the quantitative Likert-scale.

3.8.1 Qualitative Analysis

Qualitative data were analyzed based on the various themes that were gathered, wherein they have been classified and arranged as unstructured and non-numerical data.

Upon completion of transcription, a-priori coding has been initially used to enter data in terms of themes. This cautious and cumulative process has ensured that the data have been organized in a manner that specifically addressed the defined research questions.

3.8.2 Quantitative Analysis

Quantitative data have been acquired through the survey questionnaires that were paired with organizational data that have been gathered from the organization and also from the internet (i.e. as secondary data) and analyzed through use of the statistical software SPSS. SPSS is a universally known and widely used software program designed for statistical analysis in the social sciences. The software has helped to determine the effect of various organizational and cultural characteristics on EO, and also assisted with the comparison of social and commercial enterprises. SPSS also provides useful descriptive and bivariate statistics.

Because the survey has been administered in this study, the cumulative **measure** of various perceptions has been calculated by summing 12 Likert-items; central **tendency** has been measured via mean, **variability** via standard deviation, **associations** via Pearson's r, and **other statistics** via ANOVA or t-test. Furthermore, because each Likert-item has been measured in equidistant numerical categories ranging from 1-7, rather than descriptive anchors such as 'agree' or 'disagree', interval-level measurement has been deemed appropriate to ensure that valuable information was not lost.

The **four sub-dimensions** of entrepreneurial orientation of business incubators have been assessed in relation to social versus commercial enterprises, as a comparative understanding is central to research question two. Because the summative scores of sub-dimensions have been made up of only three Likert-items (less than the required four), they have not been analyzed with interval-based measurement. Instead, these summative items have been assessed as ordinal measurement scales. Descriptive statistics are suggested for ordinal measurement scale items including a mode or median for central tendency and frequencies for

variability.

Comparative statistics of sub-dimensions have not been calculated for cultural and organizational subsets, as research question three has been answered in evaluating the social enterprises as business incubators.

Data from this study have broken some of the basic assumptions in carrying out multiple linear regression analysis. One particular problem was with regard to sample size, with the basic rule of thumb being that the sample size should be **20 cases per independent variable**, at a minimum. Due to the sample size and the amount of predictor variables taken into account, multiple regression analysis could not be appropriately implemented to evaluate the data collected throughout this study. Instead, one-way analysis of variance (ANOVA) tests has been used to determine statistically significant differences between various cultural and organizational subsets taken into consideration. Pearson's R and Kendall's has been used to assess if there were significant relationships between certain enterprise characteristics. The test that has been used is in accordance to the measurement scale used for the independent variable.

3.8.3 Measuring and Evaluating the Impact of Incubation Initiatives

Incubator evaluations have been approached from different perspectives, which tend to reflect the goals of the incubator itself. When evaluating the effectiveness of non-for-profit incubators, public organizations tend to focus, for instance, on the number of jobs created; the number of graduate firms generated and their survival rates; increased sales and profits of tenant firms; incubator's revenue and sustainability over time; taxes paid by incubators; and the number of new marketed technologies. Technology incubators linked to a university tend to be interested in knowing the number of technologies commercialized through a new

incubated company. For-profit incubators are generally interested in indicators such as the profitability and level of equity investment achieved by the incubator; and so on. Therefore, what is really important is that incubator programs be compared and benchmarked with other others of similar type and mission.¹

An interesting framework for assessing Technology Incubators is provided by Mian.² His model is based on three sets of indicators: a) Performance outcomes – which include program sustainability and growth, tenant firms' survival and growth, contribution to the incubator's sponsors mission, and community-related impacts. b) Management Policies and their effectiveness – measuring the effective use of resources against the incubator's objectives. The elements assessed include the goals, organization and governance of the incubator, financing and capitalization, operational policies and target markets. c) Services and their value added – assessment of the perceived value added to the client firms in terms of services and facilities provided, and the perceived value associated to the knowledge sharing and to the incubator's environment.

3.9 Primary Research Sites

The primary research sites for this study were in the provinces of Phnom Penh and Siem Reap in Cambodia. Due to time and resource constraints, energy was focused in the areas with the highest non-NGO affiliated social enterprise concentrations that are located within specialized economic growth centers and economic poles.

3.9.1 Phnom Penh

The primary data research has been principally conducted in the capital city of Phnom

Wolfe, Chuck, Adkins, Dinah, Sharman, High, Best Practices in Business Incubation, the Maryland Technology

Development Corporation, TEDCO, June 2000. ² Mian, Sarfraz, Technology Business Incubation: learning from the US Expereince, State University of New York at Oswego, 1997.

Penh, where both hosting organizations (SHE Investments, Social Enterprise Cambodia and Impact Hub Phnom Penh) are stationed. Phnom Penh covers an area 678.46 square kilometers, and is located at the intersection of the Mekong, Tonlé Sap, and Bassac rivers. Phnom Penh is made up of a single municipality with a population of 1.731 million, according to the 2015 census data estimate (CIA, 2016). The region serves as the economic hub of Cambodia, and thus, the majority of commercial and social business can be seen here.

Industrial establishments of all sizes cluster within Phnom Penh. Over the last few years, Phnom Penh has seen an economic boom, with growth rates sustaining double-digit growth (Phnom Penh province, 2016). Reasons for increased economic activity in Phnom Penh may be due to heightened availability of infrastructure including roads, electricity, water supply, qualified human resources and improved access to public services (Chhair & Ung, 2013). The commercial economy of the city is chiefly based on the garment industry, trading, and small and medium sized enterprises (SMEs). In tandem with the steep economic growth of the city, the real estate market has skyrocketed causing disproportionately expensive property. Phnom Penh regularly brings in leisure and business travelers, as well as investors.

3.9.2 Siem Reap

Siem Reap served as a secondary location for research, as the Impact Hub database recognized it as the province with the second-most amount of non-NGO affiliated social enterprises in Cambodia. The Siem Reap province of Northwest Cambodia has been considered as the hub for tourism of the country, where the world-renowned temples of Angkor bring in millions of visitors each year. Likewise, this has caused a boom in property value and a shift toward tourism-based industry (Siem Reap province, 2016). While bringing in more wealth to some, this has not gone without detriment to underserved populations who

face inflated prices, yet resume employment within industries such as subsistence farming and fishing (Siem Reap province, 2016).

3.9.3 Hosting Organizations

Research for this study has been performed in limited partnership with the **Impact Hub Phnom Penh and Social Enterprise Cambodia.** Though the organizations provided contact information for social enterprises in Cambodia, no influence has been exerted on research questions, interpretation of data, or subsequent analysis. The following paragraphs give a brief overview of the functions of these organizations. All information was taken from their websites:

- http://phnompenh.impacthub.net/
- http://socialenterprisecambodia.org/.
- https://www.sheinvestments.com/#home

3.9.3.1 Impact Hub Phnom Penh

The Impact Hub Phnom Penh recognizes itself to be a co-working space to help support and develop social enterprises. The platform is working toward a more 'sustainable and innovative' Cambodia by extending its services to entrepreneurs, social investors, freelancers, students, consultants and more. Its purpose is to help enable collaborative ventures, provide access to mentoring and support, present a flexible exhibition and event space, as well as present lectures and workshops to support the cause. Impact Hub Phnom Penh works with a variety of partners including Transparency International Cambodia, EZECOM, ANAKOT Asia, SINET, Social Enterprise Cambodia, Zoom in Project, Cellcard, NBS-NUS Social Venture Challenge, and Insitor Fund.

3.9.3.2 Social Enterprise Cambodia

Social Enterprise Cambodia (SEC) is an initiative of Impact Hub Phnom Penh. SEC has been working to map the existing Social Enterprises in Cambodia, showing the issue the enterprise is working towards solving, their solution, their activities and the impact that they intend to make. Through an interactive map on the site, social enterprises are made visible and examples can be seen of how systems are being improved, new approaches are being invented, and solutions are being found in Cambodia.

3.9.3.3 SHE Investments

SHE (Support Her Enterprise Co. Ltd) is a business (social enterprise) that designs and delivers the only business incubators and accelerators for women in Cambodia. In the future, SHE will also link women's SMEs directly to investment to help them scale even further. SHE is the largest and longest-running entity with the majority of its team employed by the business, and most of their operational expenses fall under this. The goal is for SHE to be a sustainable business model in Cambodia.

CHAPTER IV

FINDINGS AND DISCUSSIONS

This Chapter contains the research findings that were collected in the field based on indepth interviews. This chapter begins by providing descriptive information about the cultural and enterprise-based characteristics of the research population. This is followed by contextual considerations that were discussed throughout the in-depth interviews, many of which confirm previous accounts of the Cambodian business environment. Accounts of EO based on the organizational structure of social enterprises are then considered. The subsequent sections present direct research findings according to research questions. The chapter also introduces the two primary research sites and the organizations that assisted in providing contacts for social enterprises in Phnom Penh, and Siem Reap.

4.1 Country Overview

The Kingdom of Cambodia is one of the ten nations that make up Southeast Asia. Cambodia has a geographic area of 181,035 square Kilometers and it has a 443 Kilometers coastline on the Gulf of Thailand (CIA, 2016). It is border by Thailand on the West, Vietnam on the East, and Laos and Thailand on the North. The Mekong River divides the country from North to South, and ultimately flows into the Mekong Delta of Vietnam. On this river resides Cambodia's largest city and capital, Phnom Penh. Other well-known cities in Cambodia include Battambang, Siem Reap, and Kampong Som. The country has an estimated population of 15,708, 756 persons, with 31.43 percent being under the age of 14, and 19.71 percent being between 15-24 years old (CIA, 2016), reflecting a noticeably young age demographic.

4.2 The Socio-Economic and Business Situation in Cambodia

Cambodia's unique history has contributed to a distinctive socio-economic atmosphere and business climate that should be understood for the purpose of this study. While much of the last century was marked by war and isolation from international markets, in 1993, Cambodia held an election that was overseen by the United Nations and the transition toward a full market economy began (Chhair & Ung, 2013). Cambodia joined the ASEAN Free Trade Area in 1999, and later the World Trade Organization (WTO) in 2003. For the last two decades Cambodia has seen strong economic growth, with the primary drivers of the economy being the garment sector, construction sector and services sector (World Bank, 2016). Since the turn point in 1993, however, Cambodia's market economy has been heavily dependent on foreign capital and foreign markets. This has resulted in substantial economic growth, yet low linkage to the domestic economy (Chhair & Ung, 2013).

In tandem with this economic growth, poverty has continued to fall year by year. Unfortunately, however, those who have managed to escape poverty have done so only by a slight margin, and accordingly, over eight million individuals are 'near-poor' (World Bank, 2016). With the economic hub being Phnom Penh, the countryside homes the majority of Cambodia's poor. It is recognized that Cambodia continues to struggle with a number of issues and developmental challenges such as "weak public service delivery, which impedes inclusive development, ineffective management of land and natural resources, environmental sustainability, and good governance" (World Bank, 2016, para. 5). The government does not display the ability to generate surplus revenue for essential public spending and investment or the aptitude and willingness to use available resources accountably.

It is without question that the contextual environmental of Cambodia has affected its

business climate. While estimates regarding size and number of enterprises in Cambodia differ from source to source, Chhair and Ung's (2013) report of Economic and Industrialization in Cambodia suggests that micro-establishments make up the majority of the total enterprises in Cambodia, with 2011 estimates citing that 92 percent of all establishments are micro- establishments. On the other hand, however, large industrial establishments held a share 65.50 percent of employment, with an estimated 78 percent of value added generated from these firms (Chhair & Ung, 2013). "This suggests that the foundations for large industry are strengthening while micro, small and medium industrial establishments are struggling to survive" (Chhair & Ung, 2013, p. 14). Much like the population of Cambodia, the majority of firms in Cambodia are young. It is estimated that 55 percent of industrial firms have been in operation for less than five years (Chhair & Ung, 2013).

Cambodia can also be considered a place that is relatively accessible for foreign enterprises. It is recognized by Investing Across Borders Indicators that the country is more open to foreign equity ownership than other countries in the Asia and Pacific region, allowing for one hundred percent foreign ownership of companies, unlike some other nearby countries in Southeast Asia (World Bank, 2014). When looking at current local versus foreign ownership trends, it can be seen that ownership structure varies by size of establishment and subsector. In 2011, Cambodians owned almost all micro-establishments, yet only own 37 percent of large industrial establishments (Chhair & Ung, 2013). On the other hand, it is estimated that Chinese owned up to 47 percent of large industrial establishments and 12.5 percent by Koreans and other Asian nationalities. In the same year, Cambodians occupied 90 percent ownership of medium and large industrial establishments in the food, beverage, and tobacco (FBT) sector. However, in the textile, wearing apparel

and footwear (TWF) sector, Cambodians only owned approximately 41 percent of establishments, as compared to the Chinese at 48 percent (Chhair & Ung, 2013). According to Chhair and Ung's (2013) analysis, trends show that although Cambodian ownership in traditional sectors remains forceful, there is not enough strength or vigor to engage in new industries.

4.3 Primary Research Sites

Research for this study took place in the provinces of Phnom Penh and Siem Reap.

Due to time and resource constraints, energy was focused in the areas with the highest nonNGO affiliated social enterprise concentrations. All other provinces had less than 3 nonNGO affiliated social enterprises, according to the database of the hosting organization

Impact Hub and other hosting organizations such as Social Enterprises – Cambodia.

4.3.1 Phnom Penh

Research was principally conducted in the capital city of Phnom Penh, where both hosting organizations (Social Enterprise Cambodia and Impact Hub Phnom Penh) are stationed. Phnom Penh covers an area 678.46 square Kilometers, and is located at the intersection of the Mekong, Tonlé Sap, and Bassac rivers. Phnom Penh is made up of a single municipality with a population of 1.731 million, according to the 2015 census data estimate (CIA, 2016). The region serves as the economic hub of Cambodia, and thus, the majority of commercial and social business can be seen here.

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water supply, qualified human resources and improved access to public services (Chhair & Ung, 2013). The commercial economy of the city is chiefly based on the garment industry, trading, and small and medium sized enterprises (SMEs). In tandem with the steep economic growth of the city, the real estate market has skyrocketed causing disproportionately expensive property. Phnom Penh regularly brings in leisure and business travelers, as well as investors.

4.3.2 Siem Reap

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4.4.1 Impact Hub Phnom Penh

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4.4.2 Social Enterprise Cambodia

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4.5 Overview of The Research Sample

There were thirty-two (32) representatives of enterprises that were interviewed in the study: 20 in Phnom Penh and 12 in Siem Reap. Of this sample, 12 enterprises defined themselves as 'social enterprises', while 20 defined themselves as 'commercial enterprises.

Twenty-Eight (28) interviews were carried out with a single top decision-maker, while 4 interviews took place with two top decision-makers of the enterprise. This resulted in 32 individual survey responses, although double-enterprise responses were averaged to create a single EO score for each enterprise. Participating enterprises represented a number of different sectors including the following:

Table 4-1: Sectors of the Sample

Sectors	Phnoi	m Penh	Siem Reap			Total	
	Social	Commercial	Social	Commercial	SE	CE	
	Enterprise	Enterprise	Enterprise	Enterprise			
Building	1	1	2	0	3	1	
Design &							
Construction							
Consumer	1	1	0	0	1	1	
Goods							
Consumer	1	1	0	2	1	3	
Services							
Energy &	0	1	0	0	0	1	
Fuel							
Education	0	4	0	0	0	4	
Finance	0	2	0	0	0	2	
Garments	0	1	0	0	0	1	
Handicrafts	0	1	1	0	1	1	
Hospitality	1	2	3	4	4	6	
Information	1	0	0	0	1	0	
Technology							
Medical &	1	0	0	0	1	0	
Healthcare							
Total	6	14	6	6	12	20	

Half of the organizations (16) had entirely foreign top decision-makers, while another 16 enterprises had entirely local Cambodian top decision-makers. With regards to gender composition, there was a strong tendency for male leadership: 6 organizations were made up entirely male groups of decision-makers, there were also 6 organizations with entirely female group of top decision-makers, and ten organizations with mixed-gender groups of top decision-makers.

In terms of educational composition, 10 completed master's degree, 17 completed bachelor's degree; and 5 completed associate degree.

Frequencies of this data according to social and commercial enterprise classification can be seen below:

Table 4-2: Frequency Distribution of Education, Gender, and Ethnic Composition

Ethnic, Gender and Educational	Classifications	Social Enterprise		Commercial Enterprise	
Attainment		Phnom	Siem	Phnom	Siem
		Penh	Reap	Penh	Reap
Ethnic	Entirely Foreign	3	3	7	3
Composition of	Entirely Local	3	3	7	3
Top Decision	Mixed Foreign/	0	0	0	0
Makers	Local Group				
Gender	Entirely Male	2	1	2	1
Composition of	Entirely Female	1	2	2	1
Top Decision	Mixed Gender	3	3	3	1
Makers					
Educational	Associate Degree	1	2	1	1
Attainment of Top	Bachelor's Degree	4	3	7	3
Decision Makers	Master's Degree	1	1	6	2

Of the sample of 30 enterprises included in the study, 21 enterprises (70%) were recognized to have original founders still with ownership and total control of decision-making, while 9 organizations (30%) were recognized as having original founders with ownership but also employing additional decision-makers. One organization was recognized to have founders who had partially transferred ownership, including decision-making, to another group, while three organizations (15%) of enterprises had fully transferred ownership and decision-making control to another group of individuals.

Enterprise size and age were recorded via number of employees (including top decision- makers), annual budget, and number of years of operation of each enterprise. Half of the organizations taken into account employed less than 20 individuals including top

decision- makers, while an additional 30 percent employed between 21-40 individuals. Organizational annual budget on the other hand varied greatly, with 20 percent of organization in the smallest budget cluster of between 0-40,000 USD, and 25 percent of organizations with a budget in uppermost cluster of \$200,000 USD or more. Fifty-five percent or enterprises had an annual budget somewhere between \$40,0001 and \$200,000. Seventy-five percent of organizations had been in operation for 5 years or less.

4.6 Contextual Considerations

The operational environment that enterprises exist within in Cambodia is vital to understanding EO in the area. Qualitative results confirm a number of external factors existing within the region, which must be discussed in order to comprehend how these conditions change traditional understanding of EO constructs. While most of the following observations have been well discussed in scholarly literature and modern news, interview participants continued to stress a number of circumstances in Cambodia when recounting their entrepreneurial experiences in the area. The following section will give a brief overview of significant external factors of the Cambodian environment that have proved to be relevant to both social and commercial enterprises in their discussions of EO.

Business in Cambodia traditionally has entered into an environment that can be looked as having considerably low entry barriers paired with elevated external risk. As Social Enterprise 2 states,

"We compare Cambodia to anywhere else and it is much easier for the young entrepreneur to start. If you want to do something you just start, that is it. There is no administrative forms, norms, rules, or standards, and contracts with the banks. The entry job here is terribly open and easier than anywhere else. Maybe

this is Cambodia or maybe this is true in developing countries in general" (Social Entrepreneur 2).

Forty percent of respondents make reference to the low entry barriers of the market, alluding to 'fertile business grounds', 'simplicity in formalities', and 'low costs' associated with both setting up a business and employing people. In addition to this, the market of Cambodia is considered small, particularly for foreign business, and the entry costs for start-up are comparatively low.

One factor at play is the decision for an enterprise to officially register with the Cambodian government. As discussed in the literature review, all enterprises in Cambodia are limited in formal registration as a commercial business or an NGO. Social enterprise is not yet legitimized in the country, although one respondent mentioned that they were the first enterprise in the country to legally be acknowledged by the Cambodian government as a 'social enterprise'. The former perhaps suggests a potential shift in the consideration of social business in the future. It is important to note, however, that taxation and government treatment of this social enterprise did not differ in any way from any other commercial business. The final option is for a business is to delay or evade formal registration and recognition from the government. The following pie chart summarizes the registration selections of the sample of enterprises.

Official Registration Choice of Enterprises

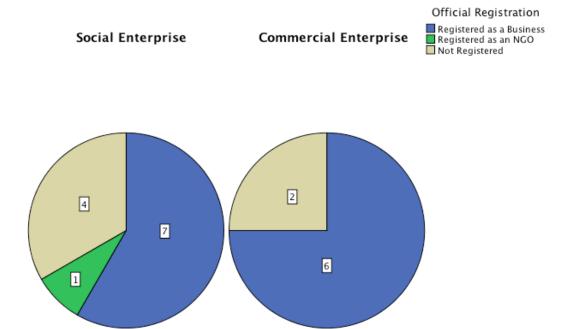


Figure 4-1: Official Registration of Sample Enterprises

As seen from the graph above, 30 percent of participating enterprises are not currently registered with the Cambodian government. Some other enterprises that are now registered also described how they strategically delayed their initial registration. The ability to delay registration essentially creates an incubator for business to test its sustainability and potential in the market without having to succumb to taxation laws. "Initially for the few months, I did the same business without officially registering to understand how the market would respond to this" (Commercial Entrepreneur 18). However, the opinions of different entrepreneurs within the sample differ dramatically regarding how this business choice will play out in the future. Many entrepreneurs discussed how Cambodia's taxation laws are quickly becoming more formalized, and how failure to register or 'do things properly' may no longer be tolerated or may have negative consequences in the future. Another entrepreneur also talked about being a role model for other Cambodian entrepreneurs, and

how committing to legitimate business sets a good example.

With low entry barriers and the possibility of conducting informal business, Cambodia is often thought of as a land of opportunity for a budding entrepreneur. On the other side of the token, external factors in Cambodia make the peripheral environment high risk for business to operate in. This external risk is not to be confused with the internal propensity of an enterprise for risk-taking, as considered in entrepreneurial orientation research. Accordingly, one must first evaluate and appreciate what kinds of external risks exist, and then comprehend how these may or may not influence internal EO characteristics. With more than half of respondents describing the endemic corruption in the country, political instability and tainted power relations, it is understood that the business environment is highly unstable. Interviews reveal that corruption extends beyond governmental structures in Cambodia, and also into the medical sector, which often has profound effects on the BoP or less educated individuals.

Physical infrastructure in Cambodia is also lacking, which hinders large-scale social and economic development but also small-scale business growth and development. One of the particular concerns emerging from the interviews has to do with irrigation networks and flooding. Cambodia is marked by two distinct seasons, the dry season and the monsoon season. Cambodia's geographical location makes the country particularly prone to natural disasters including tropical storms, drought, forest fires, and in particular, floods. It is recognized that these natural disasters have contributed to a reduction in the pace of sustained economic development, and have had profound effects on the local population and the ability for business to cope. An example of the effects of the natural disasters and flooding on business can be seen in the following quote,

"The weather is a big problem. Every business in Kampot flooded in the beginning or this season and end of last season. That affects heaps of people. People start building their bungalows and resorts, and they get flooded. They were up to the roof. We were catching fish of the floor of the bar at my place. My bar was high enough, but I got lucky. We had to do loads of new electric work after, but we were lucky though. A few doors down, they had to fully close everything. Some people had to go and rescue customers that were stranded on their bungalows on their beds because the water was so high. They had to kayak to their mattresses and get them out. We went out and rescued them with our 4-wheel drive. They lost loads of land because the water receded and took their land with it into the river" (Commercial Entrepreneur 19).

Capricious factors like these have ripple effects. Investment cynicism is one such difficulty that can hold back a business from accessing financing. Furthermore, enterprises are less able to accurately assess the effects of their organizations, or what issues they may face in the future. In addition to these external pressures, the organizational structure of enterprises plays an undeniable role in their EO proficiencies.

4.7 Comprehending EO According to SE Organizational Structure

Previous scholarly accounts of Entrepreneurial Orientation in social contexts fail to address the complexities of organizational structure, instead adopting a topical perception of how underlying social and environmental bottom lines can enhance, mitigate, or completely eliminate the foundational properties of EO. With only a handful of studies aimed to comprehend EO in social contexts, the view of EO has been capitulated to a series of statements, in short, accepting the 'social' business effect to be as such; social entrepreneurs

compete equally on risk taking, pro-activeness, and innovativeness, yet competitive aggressiveness and autonomy are impaired due to the underlying nature of social business. As previously mentioned, persistence has been suggested as an additional EO construct applicable to social enterprise/entrepreneurship. Results from this study suggest that a more complex relationship in that the organizational structure within a social enterprise influences the manifestation of EO. These internal differences and differing business models cannot be ignored when seeking to gain a comprehensive understanding of EO in social contexts. Furthermore, an additional layer of analysis must take place due to the developmental contexts that the study took place in.

First and foremost, the social and commercial enterprises that were taken into consideration in this study sample vary drastically in (formal or informal) business model. Although business model was not the primary consideration in this study, data from indepth interviews provided an understanding of how each organization seeks to create social value.

4.7.1 Entrepreneur Support Model

Of the organizations, one serves as an impact-investing firm for social entrepreneurs in Cambodia, while the other provides business incubation support and IT training, as well as a co-working and co-living space for entrepreneurs and digital nomads in the area. Despite the same embedded approach to facilitate financial security of clients via support and backing of entrepreneurial activities, it is difficult to generalize how this model directly influences EO. In the first of the two enterprises, support is provided via direct financial backing, while the second of the two provides training and ancillary entrepreneurial support. An enterprise that provides direct financial backing encourages entrepreneurial orientation in

the beneficiary (innovativeness, pro-activeness). On the other hand, it may be less likely for the enterprise to make an investment that is recognized to be risky. Social Enterprise 5 instead provides training and services to entrepreneurial beneficiaries, which places less emphasis on the subsequent achievement of the beneficiary. Because the two enterprises in this sample differ drastically in approach to the 'Entrepreneur Support', qualitative data from cannot support any generalizations of how EO correlates with this model.

4.7.2 Low Income Clients Model

One enterprise in the sample can be classified within the 'Low Income Clients Model'. Qualitative results from the interview support the notion that this model demands substantially high levels of Entrepreneurial Orientation on all fronts. The model is aimed particularly at supplying low-income BoP clients with products and services that are usually inaccessible due to price, distribution, product features, etc. Considering the low income of the target group of beneficiaries, financial sustainability of this model is often difficult to accomplish, and thus, the entrepreneur must take bold initiatives to make the business viable. The 'Low Income Clients Model' relies on "developing creative distribution systems, lowering production and marketing costs, achieving high operating efficiencies, and cross-subsidizing creative revenue markets to markets that require subsidy" (Alter, 2007, p. 38).

Data from the local Cambodian entrepreneur that founded Social Enterprise 10 under the 'Low Income Clients Model' illustrated enormous amounts of risk taken both financially and personally, along with social risk in regard to the entrepreneur's status with family and friends. In the case study under consideration, the entrepreneur knowingly embarked on a journey in which profits were highly improbable, stating that, "I put around 90 percent of everything that I had into the project. I put all the money that I saved... It's a huge risk. I know that it's a huge risk, but the thing that I thought during the time is, without doing anything, without doing it, with just thinking, nothing happens. So we took the risk, and with my family, nobody supported me during that time. My wife, she didn't support me, she didn't agree that I spent money that was saved to do that" (Social Entrepreneur 10).

Traditionally, financial risk is associated with the preference to take on high-risk projects, knowing that there is a chance of high-returns, as expressed in the Covin and Slevin's (1989) EO survey. The 'Low Income Clients' model, however, does not usually allow for a high profit margin, hence, firms opting for this model naturally exhibit disproportionate risk- taking. That being said, the former perspective does not take into account alternative currencies in regard to impact evaluation; there is the possibility that high financial risk projects may be paired with possibilities of vast social impact. Considering the preference for BoP impact associated with this model, it is likely that firms will adopt EO risk taking in hopes for great amounts of BoP social change. Although, that is not to say that it is impossible to create financial profits from the BoP, as scholars have recognized the potential of capitalizing upon the untapped purchasing power of the BoP, assuming the right business model is put into place (Prahaled, 2006).

Persistence also proves to be a critical aspect of EO in the 'Low Income Client Model'. Whether it be due to prices of raw materials, risk aversion, big industry dominance, disconnects with middle management, or other recognized difficulties in reaching the BoP, typically there is a reason as to why business-as-usual has failed to do so. Adopting the 'Low Income Clients' model means taking on these challenges headfirst, and persisting in

terms of maintaining one's vision and course of action despite such risks and difficulties.

Social Enterprise 10 demonstrates personal persistence throughout the interview, stating,

"It was around one year before people recognized my purpose, and I got a small grant. They gave me the grant because I won the first prize in a business competition and I also got the scholarship to study in Germany for the Green Start challenge. So, without these achievements, the continuous work, and showing this, maybe they wouldn't have invested... It really hurt because during the time for me, I spent my own money. Some days, I didn't even have money to have breakfast, just enough money for filling gasoline to go to work" (Social Entrepreneur 10).

Innovativeness is an equally robust EO construct in this model. Fundamentally, the model requires innovation to find ways to make a product accessible to the BoP. Such changes may include the innovative design of the products and services themselves, radically transforming logic behind one's business model, or leveraging power of the BoP as both consumers and producers. As one social impact investment enterprise states,

"We are looking at integration of innovations together, different types of innovations but mainly technology and organizational. Why organizational? You will find cost-effective ways to service the BoP low income population with something that has to have a technology to make it possible to begin with" (Social Entrepreneur 12).

4.8 Demonstration of EO in Social Entrepreneurs in Cambodia

The following section primarily takes into account qualitative information gathered via in- depth interviews to answer research question one. The section individually assesses

each EO construct and how it has been manifested within non-NGO affiliated social enterprises in Cambodia.

4.8.1 Innovativeness

Research from the study in general supports Lumpkin et al.'s (2011) theoretical assumption that "multiple and complex social problems suggest multiple ways to exercise innovativeness to identify solutions" (p. 764). As discussed in the literature review, scholarly accounts of innovativeness look at it as an enterprise's development and use of new ideas or behaviors, which can be demonstrated in terms of new products, services, methods of production, organizational structure, or administrative systems (Damanpour & Wischnevsky, 2006). It is important, however to consider the two-fold nature of innovation; "Innovation consists of *an invention and an exploitation* and thus corresponds to the innovation generation process that begins with the creation *of an idea* and finishes with its *commercialization*" (Magdalena, 2015, p. 54). The study attempted to take into account a) methods of idea generation and b) examples of new ideas that had been realized within a firm. In the interview, it was also asked if an enterprise had a particular focus on a certain type of change (product, service, process, market, etc.), as well as how often the new ideas are actually brought to life.

In regard to strategy of idea generation, the study demonstrated that in the constrained resource environment that many Cambodian SMEs operate in, there is an inclination to steer away from formal commitments to research and development. Of the twenty interviews that took place with social and commercial entrepreneurs, only one enterprise mentioned the formal existence of an R&D department. This particular social enterprise also occupied the position of highest budget and largest number of employees. This perhaps suggests that other

participating enterprises are not necessarily against the formality of R&D, but more inclined toward informality due to enterprise size or resource constraints. Nevertheless, the vast majority of entrepreneurs in the study rely upon self-generation of ideas, with informal tactics used to create the innovative 'sparks' that are recognized to be essential for business growth and survival. Due to the self-report nature of the in-depth interviews, it is difficult to determine whether this approach to innovation achieves its objectives, and how formal tactics would differentiate results. Regardless of the strategic formalities of idea generation, the study's focus on top decision-makers provided insight as to how the powerful internal actors encourage creativity and/ or endorse the overall capacity for organizational change (Magdalena, 2015).

When discussing examples of novelty that each enterprise has pursued, the most commonly cited style of innovation was market-based innovation, with 13 out of 20 sources illustrating examples of new markets being targeted. Observations regarding market innovation can be broadly categorized as 1) seeking to explore and capture markets outside of Cambodia 2) seeking to capture the BoP and 3) seeking to maintain one's position or expand within an increasingly divided middle-class and tourist/ expatriate population.

Of the social enterprises interviewed, depending on business model, reaching the BoP can encompass different strategies. In the WISE style enterprise, finding and employing the BoP means reaching the least-employable and true 'bottom' of the target group of beneficiaries. Often this is done though collaboration with partner organizations or NGOs in the region. Illustrations of this strong BoP preference can be seen from Social Enterprise 9,

"If I weren't working with [anonymous NGO], I would hire openly and it would be easier because I would get better people. That sounds terrible but some of my workers are really bad people. Not because they have done anything bad to me, but I know that they have done bad things to their family. Also, they are bad workers. Well some of them have changed and some of them have left. In a way, it was kind of survival of the fittest. It would be easier but I have to say it is a very big motivation for me personally to hire these individuals" (Social Entrepreneur 9).

Reaching the BOP in another manner, means finding distributors and/or buyers of a given product that come from the BoP. One of the emerging tactics for reaching the BoP is the innovative strategy of using two-fold pricing (TFP) to reach multiple markets.

"We keep focused and now we are more focused on the poor people. As a social business, we need to make money from the rich right? Mainly focus on the bottom-line people, we want to generate, but from a local campaign, we want to focus on that. We sell at a different price to the rich and the poor" (Social Entrepreneur 10).

An element of this strategy also relies upon the cultural observation, that, in Cambodia, the disposition of the 'poor' towards adopting a certain innovation or product depends on that of the rich. "We know that introducing new things to Cambodia isn't easy, unless rich people use it" (Social Entrepreneur 10). Accordingly, a company can implement dual pricing paired with dual marketing strategies to penetrate both the rich and the poor clientele.

Second to market innovation, sixty percent of respondents mentioned some sort of product or service innovation. Product extensions, the 'new but familiar', were a common theme, though product expansions into unfamiliar ground were also mentioned. Of the

product extensions discussed, multiple enterprises discussed the strategy of blending diverse materials to create a single product, such as rattan and iron, or stone with painted wood, to make the products both unusual and difficult to mimic or reproduce. This strategy also combats issues regarding intellectual property.

In regard to product expansion, it seemed that the enterprises engaging in radical product innovation were in the process of doing so at this exact moment, hence, it is difficult to determine if the enterprise will actually go through with the plan, or how it will be received by the market.

Unique to social enterprises, innovativeness regarding beneficiary management was discussed by forty percent of the social enterprises interviewed. This included innovative ways to find workers and evaluate their potential, innovative ways to include beneficiaries in decision-making, and innovative rules and regulations pertaining to beneficiaries that were thought to augment social impact.

One subject that continues to emerge from the interviews was the recognition of workers lacking financial planning and budgeting skills. Interview respondents revealed a number of matters specific to Cambodia. For instance, it is commonplace for a communal finance system to be set up amongst a family, as Commercial Enterprise 19 states,

"In Cambodia too, they have a family socialist system. Everybody works, and then they put all their money together and then their aunt or uncle or grandmother rolls out the cash. So, if someone doesn't have a job, they know that they will be taken care of to an extent" (Commercial Entrepreneur 19).

Furthermore, irregular spending usually takes places around the Khmer New Year. It is expected that workers return to their provinces during the holiday, bearing gifts and money

for their family living outside the city.

"Everyone goes back to their province and nobody wants to go back as poor people. People will take loans before the New Year. Criminality rates increase and police work more to give more fines. You see the scramble to get more money before the New Year. The government instructs us to, if possible, give at least 50 percent advance salary to the people. They have travel expenses and must give gifts to the family" (Social Entrepreneur 9).

To deal with these recognized fiscal concerns, 25 percent of interviewed social enterprises have implemented financial education and literacy programs. The programs are aimed toward identifying barriers and helping beneficiaries make changes toward their financials. Furthermore, these employers are offering 13 months' salary, with the 13 month paid to employees right before the Khmer New Year. Finally, two of the social enterprises interviewed offer zero-interest loans to their employees, provided that the loan amount is no more than one of their monthly wages. Steps like these additionally help to battle the recognized challenge of (formal or informal) micro-financers lending money to Cambodia's poor at exceedingly high interest rates of 20 percent or more.

"Our goal is to allow our team to become financially independent. I have introduced financial management classes. What we have found is that the quality of life has increased incrementally but the employees are still short of money every single month. Because [anonymous NGO] kept budgets, I have seen the budgets of what they needed to live, and they are making more than that, and they should have a surplus but they are still running a deficit every month. It is the same thing lots of us do. The more we make, the more we spend.

But poverty is the inability to save money and plan for unforeseen circumstances. We want to create a situation where they can understand that and plan for the future and start thinking about finding ways to manage their money property to alleviate their own situation. As a social enterprise, our goal is not to solve the problem of poverty directly, but rather to give them the tools so and encourage them so that they can solve it themselves" (Social Entrepreneur 9).

Making employees shareholders is also a social enterprise technique that helps to build beneficiary financial knowledge and access to resources. This tactic was introduced by a social enterprise aiming to eventually transfer ownership to beneficiaries. In the current structure, employees own 51 percent of the enterprise, while the founders own 49 percent. Upon working at the enterprises for one year, an employee becomes a part owner. By paying out dividends to employees, employees are incentivized to push the success of the enterprise. If, however, the employee leaves, they are not bought out, but rather, their share is passed on to a new employee or divided between other employees in the scheme.

Rules and regulations pertaining to beneficiaries are an interesting area of innovativeness in Cambodian SEs that diverge from norms and expectations of SEs operating in Western contexts. Multilateral monitoring regimes, such as the International Labor Organization, are leaders in setting labor standards and developing policies and programs aimed to create decent work. Differing perspectives towards these policies often exist, creating a 'let the market do it' or 'let the ILO do it' dispute that cannot be explored in depth within the scope of this paper (Elliott & Freeman, 2003). However, two of the twelve social enterprises discussed potential conflicts of interest with the organization

and its policies. For example, according to the ILO's 'Holidays with Pay Convention', every individual should have at minimum three weeks of paid holiday per year. In the context of Cambodia, a country with a comparatively high number of public holidays (approximately 28 per year), rules like this may instead be an undue burden to enterprise owners and to the employees themselves. In dealing with the conundrum, Social Enterprise 8 is in the process of bringing on a provocative policy of unlimited leave for staff, explaining that,

"We have one change that is very controversial at the moment. We are talking about staff leave and how it is managed. The big thing is, in Cambodia, we have 27 days of public holiday. We give everyone 20 days of leave and their public holidays, because that is what is says in the labor law. It is too much and now we are having discussion about what we are going to do and how we are going to move it to something that is more sustainable for the business as a whole. It's really interesting because we don't have tons of higher paid staff, our staff are on nice wages but they aren't on massive salaries. They don't have tons of money. I know they are saving, but they don't always want to go to a week-long holiday. That can be expensive, so I understand why they don't take their holidays. Currently we are discussing these issues, how we can remain in our legal requirements but perhaps change the liability for the company, so we are not liable for all this holiday all the time. That's the thing, the company is stuck with liability because we have staff that have 15 days of leave just sitting there, and obviously we have to pay them out. They don't take their holidays because the other holidays are enough. We are looking at doing an unlimited leave,

saying you can take as much leave as you want. It fits the bill, but there is no liability because you are saying, have whatever you like. That is our current thinking, but our business manager is doubting it. He said it could be difficult, so now we are looking at the issues of changing it, and how we will manage it" (Social Entrepreneur 8).

Another interesting policy was introduced by a WISE social enterprise that disapproved of certain behaviors of the beneficiary group. The entrepreneur observed the tendency of beneficiaries to withdraw their children from school once they reached an age that they could work. In response to this, Social Enterprise 9 introduced a stipulation that would in fact go against labor laws;

"I put one thing in the contract- you are allowed to work here only if, whatever you do, you must send your child to school. If you do not send your child to school, you will be fired. That is our policy... We had an evaluator come from the UN and check for gender values and do a social evaluation, and she told me, 'You know that this law is probably against the International Labor rights since it involves the job of the worker with what they do with their children.' I said, 'What about the rights of the children?' She said that they are separate. There

are the children's' rights and then the workers' rights? They are separate.

Regardless, I chose to keep the policy" (Social Entrepreneur 9).

Another interesting program has been created by Social Enterprise 3 in which the enterprise provides assistance to beneficiaries in obtaining their official government-recognized identification. According to the entrepreneur, it is of interest for the Cambodian

government to withhold official identification from the BoP, knowing that this prevents the group from having a say in any political election. Obtaining a birth certificate in Cambodia is made difficult by laws, and obtaining an ID after it is lost is equally as problematic.

"The child, born in Phnom Penh, technically the child has to go to the place where the mother was born and they have to have a family book. But the problem is that many people don't have family books now due to the war. If you don't have a family book, you don't exist, you are a noncitizen because you don't have proof" (Social Entrepreneur 3).

Restricting identification is essentially a strategy used to 'keep the poor in poverty', and keep the elite in power. This also has effects on enterprises that aim to hire the BoP, but legally cannot because the employees lack the right to work. Legally speaking n Cambodia, only NGOs have the right to work with non-registered persons. In this particular case, the social enterprise chose not to register at all with the government to circumvent this problem. The case in point has innovated a beneficiary assistance program that works with their employees to gain their ID cards, and essentially re-claim their political voice and ability to legally work.

Policies like those illustrated above demonstrate a special realm of innovativeness dedicated toward treatment and management of beneficiaries, a concern that is particularly relevant for social enterprises. Furthermore, they also show the need for an entrepreneur to consider the contextual environment within which the enterprise is operating. This is not to say that these policies would necessarily be favorable in other developing economies, however, it is likely that social entrepreneurs in other developing areas likely seek innovation unique to the needs and demands of their beneficiaries.

Data from this study indicate that technological innovation is an area that is less pursued in both social and commercial enterprises. Tangible examples of technological innovations included the use of new financial management systems (2 respondents), and the use of a document management system (1 respondent). Part of the issue with some forms of technological innovation in WISE social enterprises is the fundamental goal of the enterprise to employ as many beneficiaries as possible; technological innovation aimed to cut labor cost and reduce employment positions is superfluous to the enterprise ambition. Furthermore, at least 33 percent of the participating social enterprises aim to use low-tech hand-made approaches to product development, placing their added value in the skill and craftsmanship behind this production. Hence, some manufacturing technology does not align with the goals and ambitions of the company. That being said, technological innovation extends far beyond manufacturing machinery, and into software optimization for product design, probing and inspection, product lifecycle management, information sharing, and much more.

Implementation of technological innovation can enable a company to engage in detailed knowledge exchange and integration, improve competitiveness, boost performance and retain sustainability. With little evidence of technological innovation occurring within social and commercial enterprises in Cambodia, this area of innovation perhaps should be looked at as a future focus for developing enterprises.

4.8.2 Pro-activeness

Pro-activeness is an EO construct that must be redefined in terms of social enterprise in development contexts. The dual characteristics of the focal group, social missions paired with developing economies, work to impact the basic understanding of pro-activeness in unique

ways. As evaluated in the study, pro-activeness encompassed a forward-looking perspective, the ability to act in anticipation of future demand, and the introduction of new products and services ahead of competition. As discovered by the in-depth interviews, development contexts familiar to Cambodia severely limit the ability to forecast, as demonstrated by both social and commercial entrepreneurs. The shifting political landscape was discussed in depth in 6 of the 20 interviews, with enterprises' quick to highlight the possibility for business to collapse at any point in response to a political shift in the upcoming elections.

"Cambodia in my opinion is full of surprises. For example, next year we have elections again and we actually cannot prepare at all, we don't know what is happening. You have to solve the problems and handle the risks when they are here, you cannot start now to prepare for the elections next year because you have no idea what will happen then. You have to be ready all the time, and be really good in troubleshooting" (Social Entrepreneur 6).

This is further exacerbated by the tourism dependency that is familiar to many of the sectors in Cambodia, meaning that political problems in nearby regions (and in particular Bangkok, the primary travel hub of the region) could cut off the tourism flow into Cambodia. The external threats, prove to be a factor that truly hinders any enterprise's ability to plan their future activities. This is of particular concern for foreign entrepreneurs who are unable to forecast their position within the Cambodian economy in the future, as political decisions could sever international relationships and the ability for foreign nationals to create business within the country.

The secondary characteristic of the focal group is the adherence to a social mission.

This has strong effects on both the understanding of what compromises 'future demand' and

the relationship with competition. Business-as-usual would consider market demand to be an aggregate of the demands of potential customers for a specific product over a specific period in a specific market (Market Demand, n.d.). Dependent on the social enterprise model, demand can take on further dimensions. Under the WISE model, the business-asusual conception of demand remains in terms of monitoring what your customers are looking for, and how you can meet these demands within your enterprise through use of your employees (beneficiaries). Demand takes on an additional dimension, however, when evaluating the demands of your beneficiaries and how they will transform and change over time. Under the WISE Typology 1 in which an enterprise aims to provide stable employment for the same group of people, the enterprise must consider how this group of people will change over time, and what internal enterprise changes will need to take place to meet the shifting needs of the beneficiary group. Under the WISE Typology 2, an enterprise would be looking to proactively fulfil the demands of their customers and their beneficiaries, while also paying particular attention to the demands of potential employers for beneficiary placement.

Under almost all models of social enterprise, 'beneficiary demand' adds a unique dimension that reworks current understandings of pro-activeness. Respondents in a sense have re-conceptualized 'pro-activeness' through the eyes of the beneficiary, yet must strike a certain balance between acting in the now and acting for the future. On one hand it is important to have a forward-looking perspective regarding beneficiary needs, however priority must be placed on meeting the current needs of the beneficiary group. Furthermore, there becomes the question of if or when the group of beneficiaries will outgrow the need for the social enterprise. Essentially any true social entrepreneur would want their group of

beneficiaries to escape the cycle of dependency, and no longer have a need (demand) for the enterprise. The former suggests that while operating a social enterprise, an entrepreneur would have to exhibit heightened pro-activeness to meet numerous groups of demand, yet upon fulfilling the demands of the beneficiary group in their entirety (assuming this is conceivable), they would be willing to exit the field or drastically alter their business model. Furthermore, a social entrepreneur with a strictly mission-centric business model should view other enterprises working with the same beneficiary group in a positive light, rather than look at them as undesirable competition. Research from this study confirms that social missions re-shape common understandings of entrepreneurial and business competition, and thus, warp the competitive nature of pro-activeness. This stands in support of Lumpkin et al.'s (2011) theoretical supposition that both the EO constructs of autonomy and competitive aggressiveness deteriorate under social contexts. Social Enterprise 2 confirms the former below;

"In 3 years, if [anonymous enterprise] becomes a massive company and then the Khmer guy is sitting on me, saying that we did good but not they will now produce [environmentally-friendly product x] here and kick us out, that would be fine, I would be good. At the end of history, the first [environmentally-friendly product x] in this country was introduced by my enterprise. I can get kicked out, I can go somewhere else to do something else, I am cool with that because what we want is a change. I would like my company to at least remain for 2 or 3 years, but if I get kicked out it will be okay. We also might face aggressive competition one day, but once again, if we shut down because someone from here is doing it better for his or her land, then I am okay. If I shut

down because the king of the [non-environmentally friendly product] kicks me out, who is producing the same thing as me but in plastic, just for the pleasure of coming to kick me out, that sucks! That would be an issue" (Social Entrepreneur 2).

Pro-activeness in terms of competition encompasses bringing new products and services to the table prior to competitors. However, as demonstrated above, an unusual aspect of the research demonstrated that many of the participating social and commercial enterprises identify as first-movers of a given product or service. Considering the relatively young market of Cambodia, it is not too surprising that 60 percent of enterprises expressed the fact that they were the first enterprise on the market to either a) provide a certain good or a service or b) target a specific beneficiary market. This demonstrates a very strong aspect of pro-activeness upon creation of the enterprise, and many respondents stated that currently no competitors exist within their specific market. Hence, pro-activeness may be a robust characteristic of many entrepreneurs in the area, but the steady introduction of new goods and services *ahead of competition* may be less relevant in understanding the EO construct. Other respondents expressed the fact that more competition was now coming into Cambodia, however, no respondents suggested that they aggressively monitor their competition. Instead a more laissez-faire attitude is adopted.

Moreover, results from the study showed that foreigners who introduce businesses in Cambodia somehow also favor cooperation over competition, as network alliances are formed between 'outsiders' who share similar experiences and 'insiders' that can provide assistance. Data also suggests that the cooperation over competition attitude is further pushed by the tourism dependencies of many sectors.

"Cambodia is awesome, the kingdom of wonders. It is not like we are back home where it is cutthroat or anything like that. We have a community. If we all do good, it makes everyone's experience of Cambodia good. If someone has a good experience here, they will go home and tell their friends about it. When I get more set up here, I want to go down and start helping them out down the street and start working on ideas to make them better. If we can make this street great, if we can make Street [number] famous, everybody has to contribute to make that happen" (Commercial Entrepreneur 19).

4.8.3 Risk Taking

Research suggests that risk taking is an aspect of Entrepreneurial Orientation that is enhanced when an individual attempt to fulfil both an economic and a social mission within the developing economy context of Cambodia. This finding supports Kreiser et al.'s (2010) assessment that "risk-taking levels are higher in countries with smaller gross domestic products (GDP), moderate levels of technological sophistication and political risk, and higher levels of economic risk" (n.p). Commercial Enterprise 19 contextualizes how the operational environment of Cambodia affects risk taking:

"The next big risk is the elections. That is something we have to think about; what are we going to do when the elections start kicking off. Protests will start happening. There could be a coup or anything like that could happen. There could be bombings, grenades, streets shut down, a lack of tourism, Bangkok had all their issues and we had it during the last elections too" (Commercial Entrepreneur 19).

While the former takes into account the general operational environment of

Cambodia, this study also finds that risk taking is further demonstrated in social contexts, in part due to a choice of SE business model. As discussed earlier, a social enterprise can be naturally pushed into a higher financial risk zone, particularly in regard to the WISE typology that is subjected to substantially high fixed costs.

Diverging from the external pressures that push risk taking, social and commercial entrepreneurs alike expressed strong internal inclinations toward heavy financial and personal risk taking, particularly so at the onset of enterprise development. The majority of entrepreneurs described their experiences in Cambodia as diving headfirst into the market with complete investment of personal finances. However, upon taking this initial risk and succeeding, a tendency to slow and curb financial risk emerges. This was also demonstrated throughout the survey when entrepreneurs asked the interviewer if the survey questions pertaining to risk referred to their current behaviors or behaviors during the enterprise start-up period. Personal risk was also demonstrated in terms of sacrificing time and relationships with family and friends to pursue business goals. Cambodian locals mentioned how norms in Cambodia favor taking more economically stable job opportunities with large corporations. Accordingly, local entrepreneurs lacked familial support when establishing their enterprise. Foreign entrepreneurs, on the other hand, often sacrifice the ability to visit family and friends in their homes due to the demands of their enterprise in Cambodia. Moreover, they faced shock and disbelief from family and friends regarding their choice to make long-term life commitments within the developing economy.

Social risks, on the other hand, were not largely discussed by social entrepreneurs in the study, despite the fact that scholarly accounts of risk-taking emphasized their particular presence in social contexts. The greatest social risk discussed was one social entrepreneur's experience with using social media to survey end-customers about their experience with and inclination toward the product. Rather than gaining insightful information, Facebook expatriate forums delivered harsh criticism of the intention to "profit out of some niche", misconceiving the non-NGO affiliated enterprise for "some NGO with their eco-dollars", and also wrongly associating the enterprise's logo with a chemical company in another region of the world (Social Entrepreneur 2). Aside from this, no mention was made of any enterprise being criticized for their ability to properly serve their beneficiaries.

4.8.4 Persistence

The assessment of EO persistence in part evaluates how entrepreneurs deal with difficulties and uncertainties. In particular, persistence implies that an entrepreneur will stick to a course of action despite problematic encounters or experiences. Under this definition, adversity and time are viewed as important features of persistence. Results from the study, however, do not suggest that the majority of entrepreneurs faced extremely high levels of adversity. Furthermore, 75 percent of the sample enterprises had been in operation for 5 years or less. Hence, it is difficult to make conclusions about how persistent these young enterprises are. This is not to say that they do not have high levels of persistence, but instead to suggest that the specific conditions and surroundings of the sample have not required the entrepreneurs to demonstrate long-term levels of persistence.

The concept of persistence did become relevant in some interviews, and when asked about the single most important attribute for the success and development of the enterprise one social entrepreneur cited 'persistence' by name. Though this did not give a descriptive understanding to how persistence had been demonstrated and the reasoning behind its importance, a few of the founders of social enterprises did discuss the high levels of

personal sacrifice they had put into certain projects to make it succeed. More specifically, at least 25 percent of social entrepreneurs mentioned that they had not received salaries for extended periods of time, or had taken a fraction of the amount that they paid their staff.

"I got my first salary in here, not even a year ago. For 3.5 years I had to sustain myself with other consulting jobs, working nights. You need a big motivation and vision of what you are doing. That motivates you and gives you energy to go forward" (Social Entrepreneur 9).

Persistence is also demonstrated on personal time spent with the project.

"We make ourselves ill from doing so much, this is just what it takes. Yesterday was a 17-hour day, with a 3-hour break in the middle. It is not every day, but it happens and I am willing to do it" (Social Entrepreneur 19).

Statements of a similar nature to those above were common throughout the interviews, and it certainly can be said that the levels of personal commitment within the sample of entrepreneurs were undoubtedly high. However, it cannot be determined if the commitment was specifically in response to concrete setbacks or bad performance, as suggested by Wu and Dagher's (2007) definition of persistence.

Results from the study also suggest that persistence becomes of particular importance in social enterprises aimed toward employing the lowest levels of the BoP, or reaching the BoP as consumers. As quoted in Social Entrepreneur 9's mission of employing very BoP trash-pickers contributed towards heightened problems with staff behavior and lower efficiency. Despite these difficulties, the entrepreneur resolved to continue this practice due to its importance to the enterprise's mission and vision, hence substantial persistence is shown despite setbacks. Reaching the BoP as consumers also comes with difficulties,

ranging from geographical location to creating affordable products.

Although the enterprises that target BoP provide citable examples of persistence, the lens can probably be widened to encompass social enterprises that have embedded some sort of innate challenge into their vision; and consequently, persistence is required to fulfil the SE mission. While some might argue that all social enterprises are designed to tackle social ills, the degree to which the enterprise targets a specific 'problem' and subsequently experiences difficulties varies hugely. Also, there are SE business models that may not specifically encompass a 'problem-solving' mission; social enterprises designed to enrich the community or create social wealth may not encounter adversity to the level where persistence naturally becomes a prerequisite.

4.8.5 Additional Dimensions

Research from the study suggests that a few additional dimensions contribute to understanding the EO of social entrepreneurs in developing economies. Due to the contextual atmosphere of Cambodia, entrepreneurs must exhibit new characteristics to actualize their business ideas and succeed in maintaining them. In the sections above, cooperation and collaboration were suggested to override competitive aggressiveness as traits underpinning entrepreneurial and success in Cambodia. This particularly relates to the establishment of local connections. Below two additional dimensions are suggested along with the entrepreneurial group that embodies the given dimension (social, commercial, local, foreign).

4.8.5.1 Agility

Agility can be thought of as "an approach to organizing that provides for rapid system reconfiguration in the face of unforeseeable changes" (Bernardes & Hanna, 2009). This differs

from the commonly cited need for enterprise 'flexibility' within both a) social enterprises and b) enterprises operating in developing economies. Flexibility relates to an "inherent property of a system that allows it to change within pre-established parameters" (Bernardes & Hanna, 2009). Agility is a two-fold concept; it incorporates 1) responding to anticipated and unanticipated changes in due time and 2) exploiting and taking advantages of changes as opportunity (Sharifi & Zhang, 2001). Agility in this sense is paramount to flexibility for EO of social and commercial enterprises in developing economies because it represents a strategic focus to thrive within a capricious environment, and react to complexities that emerge from constant change (Sanchez & Nagi, 2001). Flexibility, on the other hand, represents responses to known situations through use of existing procedures designed to cope with change (Wadhwa & Rao, 2003).

As discussed before, the ruthlessly unpredictable atmosphere of Cambodia takes effect on entrepreneurial risk-taking. Interview respondents suggest that agility must be in evidence for enterprise survival and success. Some respondents dealt with possible changes by informal and formal contingency planning. As Social Enterprise 3 states,

"We look ahead and we plan, but for every decision that I make, there is a contingency to that decision because we don't know what is going to happen.... Every single scenario I feel like I have to think until its end point. I've thought of 3 potential relocation areas, which offer more stability. How will it impact business, what do we do with the existing operation, and how can these people [beneficiaries] be taken care of as best as possible. My retail in Canada won't care if there is a coup in Cambodia; they care about

having the product. I am making a promise to deliver on that end also. We need contingencies with that as well" (Social Entrepreneur 3)

On the other hand, however, the external atmosphere of Cambodia only allows for a certain degree of planning, and the ability to react to unexpected events becomes essential.

As Social Enterprise 6 states,

"We believe 100 percent in our whole system [social enterprise] but the risks of something, especially in a 3rd world country, you mainly have to handle risks that you don't even know. The point is, on one side you must earn enough money by doing a good job every day. But the risks you normally handle are completely different, because Cambodia is very corrupt. Risk about corruption- you cannot plan, you cannot handle, you cannot do anything...You have to be ready all the time and you have you be really good at troubleshooting" (Social Entrepreneur 6).

Agility was also demonstrated though exploitation of opportunities and taking advantage of changes as opportunity. This was especially apparent in relation to real estate and property in Cambodia. Due to the inflated costs of land in Cambodia, particularly in the regions of Phnom Penh and Siem Reap, entrepreneurs must be willing to capitalize on real estate rapidly. Many respondents in the study mentioned that they had had 'stored ideas' for expansion, change, or initial start-up, and were forced to act quickly due to real-estate opportunity.

"Quite often you have to keep your eyes open and you also have to decide very fast. If you have a project in mind and you have a property and the project is a budget of 4 million USD, in Switzerland you would have to get in contact with

the owner and make the budget. Here, you have to decide in 2 days otherwise it is gone. That is the point, I think it is, if you have the idea normally, we take these with us for a long time and we talk with each other. As soon as your feel it could work, then we keep our eyes open because you cannot plan ahead. It is the same, you cannot plan a project for the next 5 years, we have the elections, so everything can change" (Social Entrepreneur 6).

"We had to act immediately. I had 4 days to mull it over before the deadline. We found our money last minute, we made the decision last minute, and we had to sign the contract last minute" (Commercial Entrepreneur 19).

Agility as an EO construct for social and commercial enterprises in developing economies encompasses reactivity, which perhaps overshadows the importance of proactiveness. In this study, a vital element of business success proved to be the ability to quickly react to a stimulus and reconfigure quickly and skillfully. Understanding the role of agility as a firm- level dimension of EO in developing economies, and considering its difference in social and commercial enterprises, represents a fascinating area for future entrepreneurial research.

4.8.5.2 Cultural Sagacity

While perhaps natural to locals, foreign social and commercial entrepreneurs must build cultural sagacity prior to starting business in Cambodia. With 50 percent of the participating enterprises made up of entirely foreign top decision-making groups, and a high population of social enterprises in Cambodia being introduced by foreigners, cultural sagacity becomes an essential characteristic of successful non-local entrepreneurs. This is particularly amplified in social businesses that are committed to creating business with

positive impacts in the community. Sagacity refers to the quality of being wise, or having an acuteness of mental discernment and soundness of judgement. It exemplifies the ability to understand difficult (and in this case unfamiliar) or challenging ideas and situations, and to respond with good decisions. The definition of 'good' however may also be relative to culture, and consequently, understanding how to act in a 'good' way may differ from place to place.

Sixty percent of interviews with foreign decision-makers resulted in discussions about a grace period that an entrepreneur must live within and experience the local culture prior to starting business in Cambodia. Moreover, one respondent from a mixed local-foreigner enterprise described a misstep that had happened due to the new (foreign) CEO's misunderstanding of the culture, resulting in a failed project. Approximately 50 percent of the foreign entrepreneurs had moved to Cambodia with the intention of starting a particular business, while the other half had been living in Cambodia and decided to start a business after observing the market opportunity and/or need. Regardless of intention, both groups expressed the strong need for any individual to gain a solid cultural knowledge base prior to executing business activity. Two commonly cited reasons for building cultural sagacity is network building, which ties into the importance of cooperation, and understanding how to deal with the endemic corruption within the country.

Coping with corruption, in particular, illuminates a subset of cultural sagacity- the ability to break Western norms and the acceptance of doing so. Committing to the operation of either a social or a commercial enterprise in Cambodia means understanding the fact that one must partake in s that may go against one's own beliefs, morals, or principles. Such examples include paying bribes, committing to illegitimate licensing, delaying company

registration to evade undue tax, or creating regulations for staff that may not be internationally acceptable (although perhaps more socially beneficial). Due to the external nature of Cambodia, foreign entrepreneurs must redefine their personal understanding of 'normal' or 'acceptable', as illustrated by Commercial Enterprise 15,

"With things like corruption, you can't pay a bribe in America, that is a big nono. Realistically here, if you need something, they won't just do it for you unless
you give them 5 dollars. Realistically you are going to have to pay 5 or 10
dollars to a guy eventually. Also, everything takes a longer time here. If you are
like, 'Ugh these people are lazy and this and that.'... I don't know, I think it is
very hard to get anything done, so you have to approach it with an
understanding that it is just a different way to do things. Restructure of the mind
happens naturally" (Commercial Entrepreneur 15).

In regard to corruption, entrepreneurs must not only accept paying bribes, but also understand the balance and necessity of who to pay, how much to pay, when to pay, etc. The consequences of mis-stepping in this sense could cause enterprise failure, or "death by a million paper-cuts" as one social entrepreneur puts it.

"Our friends with a guest house and had 3 different fire departments come by in one month telling them they didn't have the right fire extinguishers. It is all little scams, sometimes they are not real. Sometimes people just dress up as officials and extort money and people pay because they don't know any better. It is small money, but death by a million paper-cuts, it all adds up" (Social Entrepreneur 3).

"I was informed that there was a business owner in Kampot was paying taxes to somebody for a year, then the real tax man came and told him that he hadn't paid taxes in a year. He said he had been paying every month, but the official said he had been paying to the wrong person, a guy that had been dressed up in a uniform...My mate had to pay back tax money for the last year. So, you have to make sure you are paying the right person, or you will end up paying double. If the little guy comes in and he is not paying up top, if the money isn't travelling up the chain, the big guy will come and make you pay again. You have to spend enough time here in Cambodia, and make enough decent contacts, you have to start and learn your surroundings and whom you should be dealing with" (Commercial Entrepreneur 19)

Understanding and measuring cultural sagacity as a dimension of EO for entrepreneurs operating in foreign environments, and particularly in developing economies, represents an area for future entrepreneurial research. Capturing cultural sagacity means not only capturing and measuring one's 'cultural understanding' and 'understanding of challenging ideas', but also determining the ability to respond with suitable and culturally acceptable actions.

4.9 Quantitative Data Results

Quantitative results pertaining to the EO survey itself, including reliability of the survey, are discussed below. This must be taken into consideration when considering the quantitative aspects of the Comparative Findings between Social and Commercial Entrepreneurs, and the Role of Cultural and Organizational Characteristics.

The study attempted to create an EO survey that would be appropriate for the use in

both social and commercial enterprises in developing economies. To do so, the scale modified the popular Covin and Slevin (1989) scale to incorporate some of the suggestions of other EO scholars who researched EO in social contexts. Furthermore, three survey questions were designed to measure persistence as a fourth dimension of EO in the same likert-scale manner as the three former constructs. As mentioned before, **32 individual surveys** were collected from a total of 30 different enterprises. Double-responses for a single enterprise (with 2 top decision-makers participating) were averaged to create a single EO score for the enterprise, as the study aimed to evaluate firm-level EO.

Cronbach's Alpha was calculated as a test of the construct's internal reliability and to confirm that the dimensions sufficiently compare to those measured in prior research in which EO was treated as a unidimensional construct. Results relating to scale reliability can be found in Appendix F. As suggested by Covin and Wales (2011), Cronbach's Alpha can be used to measure internal consistency for the overall EO construct, as well as each of the subscale component variables (innovativeness, pro-activeness, risk-taking propensity, persistence). In the former, individual scores of each of the four constructs were used as input to compute the overall construct's alpha coefficient. The 4-factor, 12-item Entrepreneurial Orientation aggregate scale obtained an overall Cronbach's alpha coefficient of 0.733. Santos (1999) alleges that for research purposes, as a general principle, reliability should be at least .70. Results were comparable to other EO scholars such as Wiklund and Shepherd's (2005) Cronbach's alpha of 0.64 and Morris and Paul's (1987) .765.

While many scholars do not take into account sub-scale interrelatedness in EO, following the mainstream view that EO is a unidimensional construct, this study takes into account the former for exploratory purposes. In particular, with the design of new scale

measures for 'persistence' and the modification of popular EO scale measures to better suit social enterprises, sub-scale interrelatedness proves interesting to investigate. Information relating to such may provide future scholars a basis for future research into EO scale design, and also may provide interesting information about respondents in Cambodia. Unfortunately, without any use of scale purification techniques, sub-scale interrelatedness was quite low with Cronbach's Alpha coefficients as follows: innovativeness (.281), pro-activeness (.712), risk taking propensity (.521), and persistence (.228). Essentially, the former suggests that there is not a high level of inter-relatedness between the items used to evaluate the dimensions of Innovativeness (I1, I2, I3), Risk Taking (R1, R2, R3), or Persistence (Per1, Per2, Per3). Due to the fact that only a few questions were devised for each EO dimension however, these results may suggest that the survey questions target distinct aspects of Innovativeness, Risk Taking, and Persistence.

Inter-item correlations matrices and the Item Total Statistics were used to see if any scale items within each EO dimension particularly stood out, and what this could mean about the social and commercial entrepreneurs in Cambodia. Innovativeness Q2, regarding the level of changes to products and services (minimal or dramatic), resulted in the lowest itemtotal correlation. This perhaps suggests that a) entrepreneurs who are introducing many new products and services (II) and emphasizing R&D (I3) are tending to introduce minimally-changed products or b) entrepreneurs with less focus on new products, services, and less R&D emphasis have in fact presented dramatic changes to current product lines. Risk Q3 displayed the lowest item-total correlation. This question targeted the preference for cautious lines of action even if some opportunity may be lost, or the willingness to take risks to seize and exploit opportunity. Considering the high consistency these measures have had in

previous EO studies using the popular Covin & Slevin (1989) scale, these results seem somewhat confounding. Additional research and a larger sample would be needed to understand why these inconsistencies exist and confirm if these results represent entrepreneurial activity in Cambodia at large.

The measure of persistence, on the other hand, was entirely self-designed based on academic accounts of entrepreneurial persistence, and used for the first time in this study. Due to its novelty, it is less surprising that the Cronbach's alpha was low. Persistence Q2 resulted in the lowest inter-item total correlation, which questioned if the enterprise has changed or maintained the course of action, despite risks and difficulties. Throughout the qualitative portions of the interview, many participants expressed the fact that they had not faced a vast amount of adversity. Furthermore, the sample of organizations was quite 'young', and consequently has had less time to change. Perhaps these factors influenced how participants responded to this Likert-item. Nevertheless, it would be interesting to test this measure on different populations, or explore how the measure of persistence could be modified for higher internal reliability.

4.9.1 RQ2: Comparative Findings: Social Entrepreneurs vs. Commercial Entrepreneurs

To answer research question two, the following section first evaluates quantitative information gathered via the survey. This is followed by overall findings that incorporate qualitative information gathered via in-depth interviews. Before interpreting comparative findings, however, an important discussion regarding the comparative nature of the subgroups is vital.

As discussed earlier, non-response bias and participation bias led to a group of

'commercial' entrepreneurs that for the most part, appeared to have very strong social motivations. Avoidance of this error, however, proved to be problematic, as there is no definitive business model or registration of social enterprises in Cambodia. Furthermore, a researcher spending only a few hours with an enterprise respondent cannot re-define or manipulate the categorization that an entrepreneur has self-identified with, when specifically asked in the beginning of an interview. It is assumed that the respondents have a more indepth knowledge of all the business proceedings, and thus have selected their (commercial or social) classification with intention. Despite these critical considerations, quantitative and qualitative findings comparing the two focal groups are presented below.

4.9.2 Survey Results

As discussed in the Analysis section, use of the EO scale places the highest summative EO total score at 84 points and the lowest at 12 points. Results for the study show that the social enterprise group demonstrated slightly higher Entrepreneurial Orientation on the survey, with a mean score of 59.13 as compared with commercial enterprises with a mean score of 54.81. To understand if this difference was statistically significant, an Independent Samples t-Test was carried out.

Table 4-3: Independent Sample T-Test Comparing Social and Commercial Enterprises

Group Statistics

		N	Mean	Standard Deviation	Standard Error Mean
EOsum	Social Enterprise	12	59.13	8.786	2.536
	Commercial Enterprise	20	54.81	12.939	4.575

Independent Sample Test

		Levine ^s for Equ Varia	ality of	•	T-Test for Equality of Means					
		F	Sig	t	df	Stg (2- tailed)	Mean Differences	Standard Error Difference	95% Cor Internal Differ	l of the
									Lower	Upper
EOSum	Equal Variances assumed	1.091	0.310	.892	18	.384	4.313	4.836	-5.849	14.474
	Equal Variances not assumed			.824	11.286	.427	4.313	5.231	-7.165	15.790

Homogeneity in variance is confirmed by Levine's test for equality of variances. When evaluating statistical significance between social and commercial enterprises, results show that there is not a statistically significant difference between the two conditions (Sig 2-tailed value of 0.384). The differences between the summative EO score achieved by social enterprises versus commercial enterprises was likely due to chance and not due to the presence of a social/ environmental core mission. In consideration of the blurred lines between social enterprises and socially-oriented commercial enterprises as previously discussed, non-significant differences between the two groups is not of great surprise.

In terms of each of the sub-dimensions of EO, medians, frequencies, and chi-square analyses were calculated and compared for both entrepreneurial groups. Sub-dimensions are composed of the summative score of 3 Likert-items, and hence, treated as ordinal measurements. The minimum score for each sub-dimension is 3 points, while the maximum is 21 points. The box and whisker plots and frequency tables for each sub-dimension are presented below, showing that commercial enterprises demonstrate lower medians on all of the summative EO sub-dimensions than their social enterprise counterparts.

Table 4-4 a-d: Frequencies of EO Sub-dimensions for Social/Commercial Enterprises Innovativeness (Table 4.4a)

Proactiveness (Table 4.4 b)

Count

Count

InnovSum	Social or Ent	Total	
	Social Commercial Enterprise Enterprise		
5	1	1	2
10	1	1	2
11	1	3	4
12	0	1	1
13	1	5	6
14	1	1	2
15	1	1	2
16	1	1	2
17	3	6	9
19	1	0	1
20	1	0	1
Total	12	20	32

ProSum	Social or	Total	
	Ente		
	Social Enterprise	Commercial Enterprise	
5	1	1	2
10	1	1	2
11	1	2	3
12	1	1	2
13	1	4	5
14	1	1	2
15	1	1	2
16	1	1	2
17	2	6	8
19	1	1	2
20	1	1	2
Total	12	20	32

Risk (Table 4.4c) Count

RiskSum	Social or	Total	
	Ente		
	Social	Commercial	
	Enterprise	Enterprise	
7	1	1	2
8	1	1	2
12	0	2	2
13	2	1	3
14	1	4	5
15	3	1	4
16	1	1	2
17	0	1	1
18	1	5	6
19	1	1	2
21	1	2	3
Total	12	20	32

Persistence (Table 4.4 d) Count

PerserSum	Social or	Total	
	Ento		
	Social	Commercial	
	Enterprise	Enterprise	
7	0	1	1
10	1	2	3
12	1	1	2
13	1	1	2
14	1	3	4
15	1	1	2
16	2	1	3
17	3	1	4
19	1	6	7
20	0	2	2
21	1	1	2
Total	12	32	

Chi-square tests were carried out between the dichotomous variable (social and commercial enterprises) and summative scores of innovativeness, proactiveness, risk, and persistence. Results show that there are no statistically significant differences between the two groups in any of the EO sub-dimensions. Qualitative findings help to further elucidate the comparative differences in EO between the social and commercial entrepreneurs in

Cambodia that have been the subject of business incubation.

4.9.3 Summary of Findings on Entrepreneurial Orientation

With regards to entrepreneurial orientation, qualitative findings do not differ significantly from those of the survey; social and commercial entrepreneurs within this sample compete equally on EO and its sub-dimensions. Results showed that some cases in each group act in profoundly entrepreneurial ways. As discussed earlier, prescribing to a social or environmental bottom line, or in some cases both, pushes the need for EO. An enterprise must maintain its financial sustainability, and has made the commitment to do so without cutting corners. This essentially makes a social enterprise the same as any other enterprise, but with additional obligations. When enterprises have subscribed to a model that has a different group of customers versus beneficiaries, the enterprise is inherently provided with an additional forum to innovate within, be proactive toward, and demonstrate persistence with. Furthermore, they have additional risks to consider.

On the other hand, if a social enterprise's beneficiaries are their customers, the enterprise must be proactive in accessing this group and innovative in making products that are suitable for the group, attractive to the group, and affordable enough for the group. If the beneficiary and customer group is from the BoP, the social enterprise must work overtime to achieve its objectives.

In regard to the overlap between socially-oriented commercial enterprises and social enterprises, one of the most interesting qualitative findings that emerged from the study pertains to the reasons why certain respondents have disregarded the title 'social enterprise'. In comparison to many Western countries where 'social entrepreneurship' and 'social enterprise' has become a hype to attract more business (despite the existent or non-existent

social impact), the specific context of Cambodia may be playing a role in the strategic decision to evade this title.

The long-standing NGO-dependency of Cambodia has opened the floodgates to ample criticism of the NGO sector and their activities in the country. With social enterprise in Cambodia now becoming a common NGO tactic for diversified revenue streams, some entrepreneurs in the study expressed their aversion to the title because of the NGO-connotation the word now carries. Defining one's business operation as a social enterprise gives the impression that the operation is run by an NGO and thus attracts unwanted attention and exaggerated criticism of the realized social or environmental impacts. In fact, some of the enterprises in the study do not advertise themselves as socially-oriented at all on their advertising mediums, although, after participating in the in-depth interviews, it is quite clear that they are acting in heavily socially-motivated ways. On the other hand, other participating enterprises chose to market themselves as commercial enterprises which are "socially responsible", "environmentally considerate", and "contribute locally" (Commercial Enterprise 16, Website).

4.10 RQ3: The Role of Cultural & Organizational Characteristics

To provide an understanding of research question three, the following section first evaluates quantitative information gathered via the survey. This is followed by overall findings that incorporate qualitative information gathered via in-depth interviews.

4.10.1 Survey Results

Quantitative results pertaining to the effect of different cultural and enterprise-based conditions are summarized in Table 4.5. For the purposes of this study, social and commercial entrepreneurs were grouped together in terms of EO scores, rather than

separated into the cultural and organizational factors affecting a) the EO of social entrepreneurs and b) the EO of commercial entrepreneurs. This was done so for a variety of reasons. As discussed in the previous section, no significant difference was found between the two groups in terms of EO. Furthermore, quantitative findings are already restricted by the small sample size of 32 enterprises; further splitting the group into subpopulations would result in further complications. Accordingly, firm-level cultural and organizational characteristics will be tested as predictor variables, with summative EO scores treated as the dependent variable.

For scale data, univariate analysis was first carried out to find outliers in the data set, using a z core of (+/1) 3.29 to recognize these data points. A single outlier was found in the number of decision-makers and the number of years of operation. Due to the small sample size, analysis was carried out both with and without these points to assess if they significantly changed results and assumptions. Results are summarized on the following page.

Table 4-5: Statistical Results Pertaining to Descriptive Enterprise Characteristics

Predictor Variable	Categories	Mean EO Score	Analytical Test	Significance (Sig.)
Number of Top Decision- Makers	Actual Number Inputted		Pearson's R	No Significant Dependency between Variables Without outlier removed (.755) With outlier removed (.927)
	\$ 0-40,000 (N=4)	62.25	Kendall Tau	No Significant
	\$ 40,001 - 80,000 (N=2)	74.25	b	Dependency between
Budget	\$ 80,001 – 120,000 (N=4)	45.50		Variables
	\$ 120,001 – 160,000 (N=5)	53.17		(.550)
	\$ 160,001- 200,000 (N=7)	60.50		
	\$ 200,000 + (N=10)	57.60		

Predictor Variable	Categories	Mean EO Score	Analytical Test	Significance (Sig.)
Number of Years of Operation	Actual Number Inputted		Pearson's R	Dependency between Variables Without outlier removed Total EO: (.272)
				With outlier removed (.271)
Number of Employees	0 – 20 (N=15)	60.15		No Significant
1 7	21 – 40(N=7)	53.42		Dependency between
	41 – 60 (N=1)	51.0	Kendall Tau	Variables
	61 – 8 (N=1)	62.0	b	(.214)
	81 – 100 (N=6)	56.50		
	100+ (N=2)	57.40		
Ethnic Composition of Top	100% Foreign (N=16)	50.00	ANOVA	No Significant Difference (.751)
Decision-Makers	100% Local (N=16)	50.00		
	Mixed Ethnicity (N=0)	0.00		
Gender of Top Decision-	Entirely Male Group (N=6)	19.00		No Significant Difference (.500)
Makers	Entirely Female Group (N=6)	19.00		
	Mixed Gender Group (N=10)	31.00	ANOVA	
Educational Composition of Top Decision-Makers	No Decision-Makers with Higher Education (N=0)	0.00	ANOVA	No Significant Difference (.721)
	I+ Decision-Maker with an Associate's or Bachelor's Degree (N=22)	69.00		2.110.01100 ((1.2.1)
	1+ Decision-Maker with a Master's Degree or PhD (N=10)	31.00		
	Registered as a Business (N=13)	41.00		No Significant
Official Registration	Registered as an NGO (N=13)	41.00	ANOVA	Difference (.463)
	Not Registered (N=6)	19.00		

Based on the results above, there is no credible evidence that any of these cultural or enterprise-based conditions have a significant effect on entrepreneurial orientation in social and commercial enterprises operating in Cambodia. It is likely that many of the groups above differ in significant ways that could not be controlled for in this study. Quantitatively

speaking, meaningful conclusions cannot be made regarding the influence of these cultural and enterprise-based conditions on the EO of the enterprises. Descriptive statistics generated from the results, however, do indeed provide some interesting insights and bases for further research.

With regards to total mean EO, enterprises with a mid-level education (associate's or bachelor's degree) displayed the highest mean value of total EO, while those with the lowest level of education (no decision-makers with higher education) followed. The lowest mean value pertained to enterprises with at least one decision-maker with a Master's or a PhD. This may suggest that enterprises with highly educated top decision-makers take more calculated risks. Enterprises with entirely foreign groups of decision-makers displayed the highest mean value of EO, followed by mixed foreign/local groups, and lastly, entirely local groups. Interestingly, however, the single case with the highest summative EO score came from a social enterprise composed entirely of local top decision-makers. Enterprises that were formally registered as a business with the Cambodian government displayed the highest mean EO value, which was followed by non-registered businesses, and finally, by those registered as NGOs. In regard to gender, entirely male groups achieved the highest mean EO, followed by mixed gender groups, and entirely female groups. It must be noted, however, that only one case was composed of entirely female top decision-makers and was NGO registered.

4.10.2 Overall Findings

Cultural Background

Table 4-6: Cultural Background of Social and Commercial Enterprises

	100% Foreign Group of Top Decision-Makers		Mixed Local/ Foreign Group of Top Decision- Makers
Social Enterprise	6	6	0
Commercial Enterprise	10	10	0

When assessing cultural characteristics of entrepreneurs and their relationship to EO, one of the most profound observations throughout the in-depth interviews relates to the difference between local and non-local entrepreneurs. Results from this study confirm Lyne et al.'s (2015) observation that the social enterprise sector is characterized primarily by expatriate leadership. In a rudimentary assessment of EO, one might assume that non-local entrepreneurs in Cambodia would exhibit higher entrepreneurial orientation, which was indeed demonstrated by the slightly higher EO mean in the quantitative survey presented above. This perception may stem from a number of other characteristics of the group, such as the likelihood of having higher education levels or higher income levels. It must be questioned, however, if these external factors instead boost *the ability to demonstrate* entrepreneurship rather than EO itself. Via enhanced access to capital or external resources, the capacity to build an enterprise and 'show' entrepreneurial capacity is certainly increased.

In terms of entrepreneurial orientation, however, the converse must be assessed- if it is 'easier' for a certain group to instigate business, then their counterparts may be composed of those who risk more and exhibit higher EO to succeed. From this perspective, knowingly entering into a more competitive environment with what would be deemed a lesser aptitude,

suggests higher EO would be found in local Cambodian entrepreneurs. Research from qualitative interviews points toward a complex amalgamation of the former perceptions. Understanding the relationship between cultural background and EO in Cambodia is challenging in that cultural background helps to develop the contextual environment in which an enterprise and its decision-makers will operate. This then has secondary effects on how decision-makers exhibit EO.

Interviews with both locals and non-locals describe extreme disparities between the two groups and their business proceedings in Cambodia, although neither condition appears to be substantially advantageous. The most obvious difference of the two groups is economic circumstance, and the distinctions between the financial risks that locals and non-locals are taking. According to interviews, foreign entrepreneurs likely earned higher income either in Cambodia or elsewhere, and used it for their start-up. Locals interviewed, on the other hand, likely had to invest money that was earned at (substantially) lower wages within their own country. Hence, it is probable that locals had to save income for longer time periods (increased time investment) or pool cash with family members to fund their start-ups. This represents a greater personal risk, and the risk of becoming indebted to others. Access to credit also favors non-local entrepreneurs.

That being said, it would be misguided to believe that local and non-local entrepreneurs are 'playing on the same playing field' when it comes to expenses in the country. The two-fold pricing strategy that was discussed <u>earlier</u> as a form of innovativeness mimics a widespread phenomenon that has penetrated Cambodia- what one respondent describes as a two-tiered system that was first introduced by UNTAC, the United Nations Transitional Authority in Cambodia established in 1992.

"Unfortunately, living here as a foreigner, it naturally costs us more than it does for a local. That is part of the 2-tiered system at UNTAC started when they first came here and brought all this money into the system. This is when the ridiculous salaries started, and they started paying tuktuk drivers 5 dollars when most people made below 2 dollars a day. They distorted society here, and it never really recovered. There is now a mindset that as foreigner we should pay more, that we are rich, even though the rich people here are richer than I am. Locals will pay less for everything" (Social Entrepreneur 3).

Although non-local entrepreneurs in Cambodia may (or may not) be better equipped financially, their business activity is already pushed into a new stratum in which everything from rent to raw materials will be sold to them at higher price points. Non-locals also will face enhanced effects from corruption, and perhaps a reduced ability to establish themselves locally within the community. Consequently, on-going business expenses, higher taxes, etc. substantially mitigate the financial advantage that non-local entrepreneurs have.

Essentially, the EO dimension of risk-taking propensity in terms of finances presents itself in unparalleled ways for local and non-local entrepreneurs. Interviews revealed that one strategy to conquer this issue is to establish partnerships between locals and foreigners as top decision-makers. Of the twenty organizations taken into consideration, two social enterprises and two commercial enterprises were composed of mixed foreign/local top decision-makers. Information obtained from the interviews did not reveal if these partnerships were formed organically, strategically, or for both reasons, however, respondents did discuss advantages to the collaboration. Some of the benefits of these alliances that were discussed included increased market access, enhanced language and communication capacities, and a stronger

knowledge of local and non-local needs. In terms of EO, collaboration does not necessarily reduce the propensity toward taking risks, but rather the financial risk itself via enhanced access to local pricing, foreign capital etc.

Beyond finances, the personal risks that local and non-local entrepreneurs take on are of a different nature. Entrepreneurs often sacrifice familial relationships and friendships, as start-up businesses consume ample time and energy. This sacrifice is amplified for foreigners, who live in geographically different regions than their families. Many respondents expressed distress regarding their inability to visit their homes due to their entrepreneurial commitments. On the other hand, Khmer respondents acknowledged a lack of support from family and friends in their decision to start a business. Though many local Khmer people partake in small business, the decision to choose corporate employment is viewed as the safe route and has become trendy, much as consumerism has within the country. Working for a big company and particularly a 'brand' company is favored. Economically speaking, choosing the 'reduced risk, with small but certain return' is seen as more favorable than the alternative, entrepreneurship with 'high risk but chances for high return'. Negative sentiments regarding entrepreneurship are further enhanced if the entrepreneur does not prioritize profit, which is commonplace in social enterprises that forego monetary gain for social impact.

4.10.2.1 Education

Table 4-7: Educational Composition of Social and Commercial Enterprises

	No Decision-Makers with University	1+ Decision-Maker with Bachelors Degree	1+ Decision-Maker with Masters or PhD
Social Enterprise	0	10	2
Commercial Enterprise	0	12	8

Another factor that seems to weigh into EO of social and commercial entrepreneurs

regards education level. Similar ratios of education distribution can be seen in both social and commercial enterprises. From the results above, it can be seen that there is a higher proportion of social and commercial enterprises with higher levels of education than lower levels of education. This may signal agreement with Hanley et al.'s (2015) supposition that investors use educational background and prior work experience as a signal to invest.

That being said, the survey scores and in-depth interviews do not show that enterprises with more-educated decision-makers are necessarily more entrepreneurially oriented than their counterparts. Put simply, this study shows that decision-makers or decision-making groups with higher education are more likely to be establishing business in Cambodia, but less- educated decision-makers or decision-making groups *that do* establish business in Cambodia compete equally on innovativeness, risk-taking propensity, pro-activeness, and persistence. Part of this ties into formal education versus informal education, which the survey does not account for. Results show that those who have the drive, determination, and internal aptitude to build an enterprise are able to recognize their deficits and find means to conquer them. Examples of this can be seen below;

"The first thing we saw on YouTube, and at that time, we tried to create that thing by ourselves. We made one machine by just watching from YouTube and we changed one part so it matched our enterprise needs" (Social Entrepreneur 10).

"We also don't have good knowledge of technology. We do the things that we need to do... we started from the beginning and then talked with several people to understand and listen. And also other knowledge, like talking with people. I am very very shy and I'm not talking much. So, I learned at least

some skills and basic knowledge on finances and talking to the investors" (Social Entrepreneur 10).

4.10.2.2 Gender

Table 4-8: Gender Composition of Social and Commercial Enterprises

	100% Male Group of Top Decision-Makers	100% Female Group of Top Decision-Makers	Mixed Gender Group of Top Decision-Makers
Social Enterprise	3	3	6
Commercial Enterprise	3	3	4

With regards to gender, the sample of enterprises interviewed showed that there are the same composition of male-based start-up (6) and female-based startups (6). Furthermore, the entirely female enterprise had actually been transferred from an NGO to the group of female decision-makers as a freestanding social enterprise. The gender compositions of the original founders are unknown. Due to the small sample size of female entrepreneurs, no significant comparative conclusions can be made regarding gender-based differences in EO in Cambodia. For mixed gender start-ups, there were ten (10) of them. On the other hand, results suggest that efforts should be made to engage both local and non-local women as business leaders in Cambodia.

4.10.2.3 Enterprise-based Characteristics

In terms of enterprise characteristics, the majority of enterprises ranged from having 1-7 top decision-makers, with one enterprise having 12 top decision-makers. Five enterprises (25%) had only one top decision-maker while 6 enterprises were composed of 2 top decision-makers. Mean EO scores were highest in enterprises with 2 top decision-makers (60.42), which was shortly followed by enterprises with 3 top decision-makers (60.63). Though no significant differences were found between these groups, qualitative findings support the idea

that greater numbers of decision-makers mitigate some aspects of EO. In regard to risk- taking, Commercial Enterprise 16 quotes:

"From day 1 we have been cognizant that we are taking a risk, but we have been high conviction in everything that we have done. Unless we have high conviction across all of our main leaders, the 4 of us, unless we all agree on something, then we won't do it" (Commercial Entrepreneur 16).

It is somewhat expected that having a greater number of top decision-makers would reduce the propensity to take risks, however, it may also assist with the likelihood of taking calculated, well-thought-out risks. Having only one decision-maker, on the other hand, can limit the ability for the central entrepreneur to be proactive or innovative, as the figurehead may be consumed with ensuring the smooth and effective operation in the current time, and less able to assess future opportunity, develop new ideas, network in the community, monitor competition, etc.

For the most part, the majority of enterprises interviewed (55%) were still under 100 percent founder ownership and decision-making control. Alternatively, 5 enterprises had complete founder ownership but had employed additional decision-makers, usually in the form of a board of directors. One enterprise had partially transferred ownership and decision-making control to employees, with an 'employees own 51 percent, founders own 49 percent' scheme. Three enterprises had entirely transferred ownership from the founders, and therefore, interviews were conducted with new owners or top decision-makers. All of these enterprises identified as social enterprises.

Both in the quantitative survey results and qualitative interviews, it appeared that enterprises that had fully transferred ownership from founders to a new group of decision-

makers exhibited lesser EO than their counterparts. This is not of great surprise, as essentially the enterprise no longer has *the entrepreneur* behind the business, and subsequently firm-level EO no longer mimics the individual EO of the founding entrepreneur(s).

4.11 RQ4: Contextual Qualities Found to Affect the Proposed Model of EO & Its Adoption in Cambodia

Based on the previous findings, it is understood that the proposed model of EO does not necessarily fit into the contexts of Cambodia. This has been seen in relation to both social enterprises and commercial enterprises operating in the area. Proactivity was seen to manifest itself in unique ways in both social and commercial enterprises operating in Cambodia, with the role of cooperation and the establishment of local-connections playing a strong role in enterprise success. Furthermore, agility and cultural sagacity were found to be highly relevant additional dimensions of EO.

The following section uses qualitative research from interviews to present some challenges unique to Cambodia that affect the uptake of certain EO dimensions. These are presented to show that the one-size- fits-all model of EO used in developing economies does not take into account some distinctive qualities of developing economies. Developing economies embody unique contextual qualities, and accordingly, entrepreneurship cannot be evaluated in the same way as it is in Western contexts. Furthermore, proposed EO dimensions may not hold the same advantage as they do in developed countries.

4.11.1 Challenges to Innovativeness

Innovation as it is understood in Western contexts cannot necessarily be achieved in the same way in Cambodia. Furthermore, being particularly innovative in one's firm may not

result in the same advantages as it does in Western regions. One potential challenge is the lack of Cambodian laws and regulation pertaining to Intellectual Property. Though Cambodia joined the World Trade Organization (WTO) in September 2004, the agreement to implement a number of intellectual property related laws and regulations has lacked momentum and remains an unfulfilled obligation (Cambodia Intellectual Property Laws, 2015). Consequently, innovation in low-tech fields, like that of handicrafts, face issues with maintaining their competitive advantage;

"There is also the risk of intellectual property. Because, here it does not exist, in Cambodia, or in the beginning, it is very basic. We can see because we are an arts and crafts company, we have a department which is dedicated to creating new things so the products that people, buyers, potential customers, see in our shop are different than things that they can see everywhere at the market. We want to have our added value placed in these innovative designs. The problem is, that if there is no intellectual property, people come to your shop, they measure, they have a look and then they do the same, and it is happening a lot" (Social Entrepreneur 7).

Innovativeness in high-tech fields, on the other hand, is restricted by market readiness in Cambodia. Consequently, being too innovative may instead be a disadvantage for enterprises. As the Phnom Penh newspaper stated earlier this year, "start-up market for digital innovation was barely more than a haltingly growing seedling" (Halim, 2016). Commercial Enterprise 15 substantiates this claim, quoting:

"We know we are first, and we know we are early in the market, but we don't know if we are too early. If we are too early, we kind of screwed up. We are trying to stay as the first mover, so far it is alright, when the technology moves up" (Commercial Entrepreneur 15).

Market acceptance of innovations also proves to be a substantial barrier for enterprises in Cambodia. For social enterprises, the demand for sustainably produced products or environmentally friendly products has not penetrated Cambodia yet. Consequently, many of the social enterprises have their hands ties in regard to their markets within Cambodia; they must keep their price points high enough to maintain education programs, eco-friendly sourcing, adequate wages, etc., and accordingly, they restrict their market to foreigners living within Cambodia, or to international markets. As one of the world's least developed countries, most Khmer locals must focus on earning enough income to sustain their own lives, and hence, sustainability is not a core concern in terms of purchasing power. In this sense, many social enterprises in the area are limited and unable to lower their price point enough to capture a Cambodian segment. On the other hand, some social entrepreneurs expressed that there is a strong preference for brand in Cambodia, which is likely due to the strong Western influences in the area. Social Enterprise 9, with environmentally-friendly products marketed toward Khmer locals, expressed other aversions to the product:

"They are against innovation if it does not come from Korea, from TV, or from a superstar, or if it doesn't have an apple on it. They are always going to think the Cambodian way is better. To convince them, we give lots and lots of free samples. A big barrier is acceptance of our product, and we overcome this by giving free samples" (Social Entrepreneur 9).

4.11.2 Nongovernmental Organizations (NGOs) in the Social Enterprise Arena

Unlike in developed economies, the infiltration of NGOs into the social enterprise

sector of Cambodia is a unique challenge within the area. NGOs claiming the title of 'social enterprise' or setting up social enterprise affiliates places an undue burden on freestanding social enterprises in a variety of ways.

"There are so many NGOs that say they are social enterprises, but they are not. They are all subsidized. They are subsidizing, not paying taxes and producing things that nobody needs. They are paying salaries that are so out of reach of a normal business that it is distorting and damaging everybody else. It is even damaging the people, that is how it has happened here. They hire them, they give them a nice job, then say it doesn't work after 2 years" (Social Entrepreneur 9).

On the one hand, competition is skewed when non-NGO affiliated social enterprises are forced to compete with NGO-affiliates that have access to subsidies and philanthropic funding. Moreover, NGO's publicly call for regulations, such as increases in wage, which potentially harm the free market. On the other hand, this slanted competition reinforces the EO of freestanding social enterprises in that they must be creative and proactive in conquering this hurdle. The perceptions that emerged from non-NGO affiliated social enterprises about NGO-affiliated social enterprises in part relates to the specific methodological decision to not study this group. Research regarding the differences between these groups and their relationship with EO would be an interesting area for further research.

4.11.3 Evasion of Formal Registration

The ability to not register as a business with the government in Cambodia is a doubleedged sword that can modify an enterprise's ability to manifest certain EO competencies. The fact that enterprises are able to evade formal registration with the government, unlike in Western contexts, can be positive in that it can work as an incubator for new firms. Launching headfirst into the tax world can put financial pressure on businesses and cause failure. On the other hand, an enterprise's choice to 'fly under the radar' particularly limits the ability for the enterprise to advertise and present themselves outright to potential customers. Notably, failure to register limits enterprise proactivity. Furthermore, with a quickly changing government system, evading formalities may prove to be risky and compromise the future sustainability of an enterprise. Opinions regarding the importance of registration differed dramatically within the sample, with the only agreement being that there are pros and cons in both choices. In terms of EO, it seems that registered enterprises are better able to express all of these entrepreneurial dimensions. Equally so, registration may *demand* these higher levels of EO. That being said, some respondents believe that a young enterprise might be wise to 'get its feet in the ground' and establish its EO competencies prior to entering the onerous domain of formality.

4.11.4 Successions in Leadership

Many social enterprises in Cambodia have a common goal- to create a successful, sustainable, and economically profitable business, and eventually, have this enterprise controlled entirely by a selected group of beneficiaries. Social enterprises in other developing economies likely have the same target. This strategy perhaps emerges due to a combination of factors. The SE sector in Cambodia is dominated by expatriate leadership, and not all expatriates view aspires to have a lifelong commitment to the enterprise, or see it as their lifelong employment mechanism. There is also a perception of altruism in 'giving back to the community', starting a fruitful enterprise and handing the reigns over to locals to continue to prosper from the enterprise. This 'empowerment' strategy was discussed by many of the social

entrepreneurs taken into account in this study. In consideration of the strong linkages between EO and business survival, growth, and enhanced performance (Covin & Slevin, 1991; Wiklund, 1999; Kraus et al., 2005; Al Swidi & Mahmood, 2011), it is vital to keep EO intact throughout these successions of leadership. Unfortunately, however, results from this study demonstrated that successions in leadership are associated with lower levels of EO.

Within this study, a number of potential succession plans were discussed, with some fully realized. One case represented the succession from an NGO to a freestanding social enterprise operated by locals. Some quotes from this enterprise demonstrate the shaky position of the enterprise:

"We earn very small so we cannot support salary or rental fees. For 2 years already we cannot earn, the business is going down and down" (Successor to Social Entrepreneur, 11).

"Some of our products are very old, meaning that we reuse old products" (Successor to Social Entrepreneur, 11).

It is all too common that success stories are claimed by social enterprises or nonprofits that have transferred ownership, and thus created 'meaningful employment' and 'economic opportunity' for a given group of beneficiaries. Successors, however, must have the proficiencies *not only to operate* the business, but to also *transform the enterprise over time according to external and internal needs*. Without entrepreneurial competencies, subsequent success is diminished. Smooth and thoughtful transitions in leadership must consider more than whether or not the beneficiary group ends up with enterprise control.

"The founders own 49 percent and they would like to give it all to the local employees when we are strong enough to take care of the business. They were

supposed to transfer at the end of 2015, but some of the key staff are in Norway for 1 year receiving training as a part of the Change program. They want everybody ready when they make that transfer" (Social Entrepreneur 6). "If I want to achieve what I was telling you about, and have my backpack again, and have the business managed by Cambodians, I have a lot to achieve to reach that point and I don't have a plan or answer for that on the really short term. I'm just knowing that maybe by building the community, maybe one day a young entrepreneur will come and see me and be like 'I want to do the same thing.' Organically. That's the only thing I can do-I can try. If I overthink or make a strategy to find someone to make this conceivable, I may find the wrong candidate. I want this to be organic and to find someone with passion that wants to do the same thing" (Social Entrepreneur 5).

Successions of leadership are a characteristic of the SE sector in developing economies that must be considered in regard to the manifestation of EO. They contribute to difficulty in maintaining entrepreneurial proficiencies over time, whether it be EO proficiencies taken from the proposed model of EO or newly-recognized dimensions of EO that better-suit developing economies. Although transitions of leadership from social enterprises may be considered a positive aim for social entrepreneurs in Cambodia, tactless succession plans are a risk that cannot be ignored. More research should be considered in regard to how social enterprises can find and train successors with entrepreneurial tenacity as strong as their predecessors.

4.12 Key Actors and Support Programs on Technology Innovation

4.12.1 Educational Institutions

The last few years saw an increasing interest from the Ministry of Education, Youth and Sports (MoEYS) and the Ministry of Posts and Telecommunications to support the growing interest in the technology and entrepreneurship. The education ministry has taken policy measures to improve STEM curriculum and endorse tech and entrepreneurship education programs at state universities. The MPTC established the National Institute of Posts, Telecoms & ICT in 2014 to improve research and education in the field of STEM and entrepreneurship. The most significant development, regarding bridging technology education and entrepreneurship, has been seen this year in the form of new innovation labs and university-based incubation programs.

Four universities namely NIPTICT, NUM, ITC, and Zaman University have an innovation lab on campus. All of them received some level of funding support from Smart Axiata. The Cambodia-Korea Cooperation Center, based in the Royal University of Phnom Penh (RUPP), expects to launch an innovation lab with support from the Korean International Cooperation Agency in 2018. It remains to be seen what these facilities will offer and how they will perform.

4.12.1.1 Zaman University (now Paragon University)

Zaman University is a private university founded in 2010. The university offers degrees in engineering, computer science, business and finance, innovation and entrepreneurship, and more. Smart Axiata funded an innovation lab at Zaman University in 2016. The Smart Axiata Innovation Lab functions similar to an incubation program and offers workspace and opportunities for committed student entrepreneurs to develop and validate their

business models. Members of the Lab include SPAREasia or simply SPARE, an Airbnb-like app for event space. SPARE, developed by a local team of students from different majors at Zaman, was discovered through the SmartStart Young Innovator Program, implemented by Impact Hub Phnom Penh, and received additional supports through attending the Business Model Competition (BMC) Startup Accelerator and the Mekong Challenge.3 SPARE pitched in the Echelon Top 100 APAC Cambodian Qualifier, a milestone event to select top startups from Cambodia to compete in the regional event in Singapore, and was selected as one of the five Cambodian team to compete.

4.12.1.2 Institutes of Technology Cambodia (ITC)

Founded in 1964, ITC is a higher education institution in Phnom Penh. It trains students in science, technology, and engineering. In February 2018, ITC launched a Smart-Techno Innovation Lab, which includes an Incubation Lab, a computer lab, and a big STEM library that is open to the public. The Incubation Lab currently only has a co-working space that is intended for students who have innovative ideas for entrepreneurship to use for developing prototypes. ITC is anticipating funding from KOICA for purchases of equipment for the Lab. In collation with Small World Cambodia and with support from Smart Axiata, ITC will be launching an incubation program (see under 'Incubators and accelerators' below).

4.12.1.3 National University of Management (NUM)

Founded in 183 as the Economics Science Institute (ESI), the university was renamed the Faculty of Business in the 2000s and then transformed into the National University of Management in 2014. NUM is the founding place of the Business Model Competition

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³ Ismail Vorajee. SPARE solves problems with a smart solution. Khmer Times. Accessed at https://www.khmertimeskh.com/50107432/spare-solves-problems-smart-solution/ on November 2, 2020.

program, currently known as the BMC Startup Accelerator (see under 'Incubators and accelerators' below). In February 2018, NUM opened the Social Innovation Lab with funding from the European Union (EU) and Smart Axiata. Intended primarily for the university's students to use in developing innovative ideas for entrepreneurship, the Lab is also available for the public to use at no charge. The Lab has three entry-level 3D printers (sourced by ArcHub PNH) and some virtual reality equipment.

4.12.1.4 Norton University

Norton University was Cambodia's first private university founded in 1996. The Electronics and Electrical Engineering department was founded in 2000. In 2015, recognizing that it was difficult for students to source hardware parts for projects, Keun Buntheun, a graduate of Norton's Electronics and Electrical Engineering department, founded Cambodia Electronic Source (CES), a retail outlet physically located inside the Norton Electronics and Electrical Engineering Lab, to offer microcontroller boards and other parts, sourced mainly from China and Vietnam. Until ArrowDot started their retail offering (see under 'Makerspaces and design labs' below), this was the only source for such parts in Cambodia. In collaboration with Small World Cambodia and with funding from Smart Axiata, Norton University launched an incubation program in May 2018,

4.12.2 National Institute of Post, Telecoms, and ICT (NIPTICT)

NIPTICT is a public research and training institution in the field of post, telecommunications, and ICT. In March 2018, NIPTICT launched the groundbreaking ceremony of a innovation center. The 4-story center will include a research laboratory, start-up and co-working space, and facilities for public and private agencies with an ICT focus to collaborate and network, with the overall aim of developing creative and innovative ideas and

solutions for Cambodia. Set to be open in 18 months, the center is supported by MPTC, NIPTICT, and Smart Axiata. The center is being funded using the government's Capacity Building and Research & Development Fund (R&D Fund), which comes from the 1% payment on gross revenue from Cambodia's telecom operators.

4.12.3 Talent and Training

The following are non-public sector initiatives that train young people on technology and entrepreneurship:

4.12.3.1 Technovation Cambodia

Technovation Cambodia, implemented by USADI's Development Innovations project since 2014, is an intensive 12-week training and pitching competition program that exposes young girls aged 10 to 18 to tech entrepreneurship. The program offers an open source, handson curriculum for participants to develop an app prototype (using a platform which requires no prior coding experience), create a business plan, and pitch their business ideas throughout a course of 12 weeks. Program participants work in teams. They are supported by a coach and are mentored by primarily female professionals in Cambodia. Over 400 program participants have benefited from a holistic learning experience focusing on both soft and hard skills, including coding skills, entrepreneurship training, public speaking, and problem- solving and teamwork.4 This program is not a business incubation but a rather a skills training program for building innovative mindsets amongst young girls and teens.

The program is supported by the Ministry of Education, Youth and Sport (MoEYS) and was co-funded by Smart Axiata, Digital Mobile Innovations and MyTEB in 2018. Early on, the majority of the program's participants come from English-speaking private schools in

⁴ Technovation Cambodia. Development Innovations. Accessed at http://www.development-innovations.org/technovation/ on November 3, 2020.

Phnom Penh where an extracurricular activity like this is valued by the schools, and has reached more and more public schools since it started its outreach in 2016. Through MoEYS, Technovation Cambodia hopes to recruit and engage more participants for the program through public schools, especially in the provinces. Outside of Phnom Penh, DI also implements Technovation in Siem Reap and Battambang.

4.12.3.2 Liger Leadership Academy

Established in 2012, Liger is a 6-year, highly competitive education program with an admission rate of 0.75%. It aims to educate Cambodian youth to be socially conscious, entrepreneurial leaders. The academy provides a residential scholarship program for economically disadvantaged students that combines a comprehensive, internationally competitive education with an innovative STEM and entrepreneurship curriculum. Liger's students have benefited from a series of skills training by actors in the tech innovation sector such as Technovation Cambodia, Open Development Cambodia's geographic information system, ArrowDot's robotic and engineering classes, ArcHub's 3D printing classes, and STEM Competitions. The academy has hosted 110 students from 20 provinces since 2012. All under the age of 15, Liger students are recognized app and digital currency developers, regionally recognized robotics engineers, and national award-winning filmmakers.

4.12.3.3 E2STEM Cambodia

E2STEM Education is a non-profit education provider working with MoEYS a public-private partnership to implement STEM education. It is founded in 2017 by Dr Seet Ai Mee, Former Minister of Education of Singapore. The program admits incoming 10 graders for a 3-year educational program. The curriculum consists of the national school curriculum in Khmer with additional enrichment programs in English language, E-learning, and STEM subjects. To

graduate, students must pass a two-year Diploma in Technology, and complete internship program and community projects. Upon graduation, students may transfer to RUPP or ITC to complete Bachelor's Degree in Engineering.5

4.12.4 Community Building Initiatives

Before the emergence of co-working spaces and community building events associated with them in 2015, community building events such as TechCamp, Open Cambodia Festival, and Mekong ICT Camp provided opportunities for peer learning by connecting local practitioners with international experts, and inspired collaborations between local civil society organizations. These events benefited a small group of beneficiaries and were conducted on a bi-annual basis if not longer. When it comes to building a growing community of young people who are interested in and celebrate science, technology, and innovation, annual events such as BarCamp Cambodia and STEM Cambodia are integral.

4.12.4.1 BarCamp Cambodia

BarCamp Cambodia, the longest running grassroots tech community building event, was integral in establishing a local community of practitioners by connecting students with seasoned technology experts and development professionals and thereby kick-starting a new culture of skills sharing and volunteering.

The Camp was first organized in 2008 by two tech enthusiasts namely Tharum Bun and Hor Virak. Be Chantra, now is one of the key community builders in the tech and innovation sector, volunteered to run the Camp in 2009. This tech community building event struggled to find a dedicated team and fund to continue operation in the first few years, but a nascent homegrown tech community kept the BarCamp tradition alive. The event began to

⁵ E2STEM Cambodia. Accessed at http://e2stem.org.kh/pathway-to-career/ on November 5, 2020.

gain public following soon after, especially amongst university-aged and early career professionals. In 2012, Open Institute, where the leading BarCamp volunteers were employed, agreed to host the Camp and made it accessible in other provinces throughout Cambodia, and thereby renaming it to BarCamp Cambodia.

Open Institute and then Development Innovations made BarCamp even more accessible at the provinces. As of 2016, BarCamp brought together hundreds of speakers from various sectors and disciplines and engaged more than 21,000 participants across ten provinces and cities in Cambodia in more than thirty Camps.6 The funding model has changed since mid- 2016, with private telecommunications companies namely Cellcard, EZECOM, and Smart Axiata becoming the prime sponsors. As of 2018, Smart Axiata is the main sponsor, and the Camp have reached 40,000 people.

4.12.4.2 STEM Cambodia

Founded in 2014, STEM Cambodia is on a mission to reinvigorate the interest of Cambodia's youth in science, technology, engineering and mathematics (STEM). STEM Cambodia provides role models through National STEM Competition and Robotics Competition. It produces and presents exciting, educational, and entertaining science festival in Cambodia annually. STEM Cambodia engaged with ArcHub PNH and TRYBE to run Maker Fair and outsource fabrication work to ArrowDot to produce prototypes for the festival. To build awareness and interest in STEM in other provinces, STEM Cambodian organizes a STEM Bus program.

STEM festivals have grown in popularity in the past year. In 2015 12,000 students attended the festival. In 2017, the attendance grew to 29,500. Impacts of these activities have

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⁶ Be Chantra. BarCamp Phnom Penh's History. Personal Blog. August 16, 2016. Accessed at http://bechantra.com/barcamp-phnom-penh-history/ on November 2, 2020.

⁷ Interview with representative of BarCamp Cambodia.

shown; MoEYS saw doubled application for enrollments in STEM programs at ICT and RUPP and are expanding facilities to accommodate.8 STEM Cambodia observed increasing interest from the government in the past few years, in the form of making STEM curriculum more engaging and implementing a new school approach called the Next Generation School, which aims to increase Cambodian youths competitively in the marketplace by strengthening STEM skills.

4.12.4.3 Co-Working and Community Building Spaces

Co-working spaces are shared workspace, typically with a broadband internet connection, flexible working hours, and an environment that is conducive to interacting with other people with complementary skills and knowledge. Co-working spaces in Phnom Penh have multiple models; some are independently operated and open to the public, while others are established in partnership with universities, government agencies or CSOs. Some co-working spaces may be owned by private companies and with no external members allowed.

Co-working spaces are a recent but growing phenomenon in Phnom Penh in part because of rising interest in startups, but also because of the steady increase in alternative work arrangements in the new economy. Starting with two co-working spaces before 2013, Phnom Penh now has 13 co-working spaces (owned or operated by 12 entities). Some were closed due to due to increasing rents and competitions.9

Some co-working spaces have evolved into tech-innovation community centers, also providing links with, or including in the same space, makerspace, networks of mentors, skills

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⁸ Interview with representative of STEM Cambodia

⁹ Co-working spaces that have been closed are DI 5D Lab, implemented by Development Innovations; CoLAB/Hackerspace PP; and Comm.ON, an initiative of SmallWorld located at the Korean Organization for Trade and Investment (KOTRA)

training courses, incubators, and accelerators. Some co-working space may have many of the elements of incubators. However, they are not always exclusively for startup ventures. They often include individual freelancers and small staff teams that may function as a satellite site of a larger company headquartered in another city.

4.12.4.4 SmallWorld Cambodia

SmallWorld Cambodia was founded in December 2011 as a collaborative workspace and Cambodia's first homegrown startup community by a group of progressive young Cambodians, including Rithy Thul, to pilot their business ideas. The SmallWorld team makes up of dedicated local young talents, with projects focused on emerging technologies, such as blockchain applications, including smart contracts merged with smart devices.

SmallWorld runs meetup events for members and its startup communities. It maintains a startup community on Facebook called Phnom Penh Startup Community. It provides mentorship support and coaching; runs entrepreneurship support programs in partnership with regional accelerator programs, universities; and facilities access to finance (see 'Incubators and accelerators' below). Members of SmallWorld Cambodia collaborative space are primarily Cambodians.

4.12.5 Impact Hub Phnom Penh

Formerly called Social Enterprises Cambodia, Impact Hub Phnom Penh was founded in 2015 and became the largest community and co-working space for entrepreneurs, creatives, and technologists. It runs a series of support services and programs including incubators and accelerators (see 'Incubators and accelerators' below), mentoring, and weekly community engagement events. Impact Hub Phnom Penh scores some high-profile corporate and

development partners for its programs. It has grown rapidly and has now moved to a bigger place. Members of Impact Hub co-working space are primarily expats and digital nomads.

4.12.6 Emerald HUB

Emerald HUB, co-founded in 2015 and managed by Chantra Be, is a co-working space for freelancers, startups, and entrepreneurs located in the Phnom Penh International University (PPIU). Emerald HUB bills itself as a reference for the startup community in Phnom Penh. Members of Emerald HUB co-working space are primarily Cambodians. The Emerald HUB hosts community building and networking events, conference, and workshop.

Since it does not have a dedicated event space, Emerald HUB is now hosting events less frequently and only after work-hours as to not disturb its members. Observing that Cambodian entrepreneurs prefer privacy and a dedicated office space rather than a hot desk, Emerald Hub is converting the hot desks to private desks which are suitable for teams. BookMeBus, a bus booking platform, was previously located at Emerald HUB; however, the team grew too big for Emerald HUB to accommodate and hence moved to a new office. Emerald HUB won the Best Co-working space from Rice Bowl Startup Awards in 2017. Due to increasing demand, they have opened a new Emerald HUB in the Phnom Penh neighborhood of Beong Keng Kang III.

4.12.7 TRYBE

Formally founded in February 2017 in association with the University of Puthisastra, TRYBE is a co-working space that bills itself as Phnom Penh's only makerspace through ArcHub PNH (see 'Makerspaces and design labs' below). TRYBE has 70 members who have access to some 3D printers, an Investable X-Carve CNC mill, and some woodworking tools as well as co-working space.

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¹⁰ Interview with representative of Emerald Hub.

4.12.8 Raintree Cambodia

Founded in 2016, Raintree Cambodia offers modern office space, available for short or long- term rent, for fast-growing teams and businesses. Situated in Phnom Penh's central business and banking district, Raintree is quickly becoming a popular destination for technology and entrepreneurship community building and networking events. In line with its mission to support technology and education sectors in Cambodia, Raintree hosted events like TechCamp, SmartStart pitching competitions, 'Silicon Valley Bootcamp to Cambodia', networking event Startups&Angels, and the Echelon TOP 100 APAC 2018: Cambodia Qualifier Roadshow.

4.12.9 TEKHUB

Established in 2017, TEKHUB is a collaborative program between Impact Hub Phnom Penh and The Asia Foundation. TEKHUB supported innovators and entrepreneurs who worked on tech solutions for social impact. The program provides business coaching, events, and space for entrepreneurs and innovators to work on their ideas through hands-on prototyping and testing. The Asia Foundation rebranded the space to TEK4GOOD in early 2018 following the end of its partnership with Impact Hub Phnom Penh.

4.12.10 The Outpost Cambodia

Established in Phnom Penh in 2016, the Outpost Cambodia offers co-working and coliving spaces in a collaborative, productive community. 11 Outpost ran its first startup competition to attract creative talent to its space in February 2018 in collaboration with Geeks in Cambodia and Startup-Cambodia. Two winning teams received dedicated desks, customized consultations with a team of global experts, access to the Outpost Network, and

¹¹ Outpost Cambodia. Accessed at https://www.thegreenpenthouse.com/ on November 6, 2020.

exposure through their social media channels.¹²

4.12.11 The Desk

Founded in 2017 by Norith Kim, a former manager of Emerald Properties who has experience in working on a startup, The Desk is a new co-working space appealing primarily to Cambodian entrepreneurs and freelancers. It organizes community building events and offers space for events. The Desk is considering running an accelerator program to engage and support its members. It realizes the need to develop a niche offering; but as an incumbent, it is constraints by its current capacity to analyze the need and build a stronger network of mentors and investors. Members of the Desk co-working space are primarily Cambodians who are working on a range of projects from design to architecture, to technology.

4.12.12 SAHAKA

Founded in January 2018, SAHAKA is a co-working spaces and fully equipped private offices for entrepreneurs, professionals and innovators. It was founded and by an all-female Cambodian team who have spent extensive time overseas and want to bring collaboration ethos to support female entrepreneurs at home.

4.12.13 The Factory Phnom Penh

The Factory Phnom Penh, a re-purposed garment factory built on a 3.7 hectare of land, is a mixed-use information technology and creative hub. Once the construction completes, it will contain a co-working space, office rental space, creative studio, event space, gym, skate

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Roman Di Geronimo. Outpost's startup sponsorship competition: a retrospective. Geeks in Cambodia. Published on February 5, 2018. Accessed at http://geeksincambodia.com/outposts-startup-sponsorship-competition-a-retrospective/ on November 6, 2020.

park, cafe, bar, and a makerspace. The Factory's location, which is further south from town, is considered a challenge.

4.12.14 Futures Factory

Launched July 2018, Futures Factory is a collaborative workspace, developed by Friends International, an international social enterprise supporting underserved youth in Cambodia by providing them with vocational training and access to employment. Futures Factory aims to be a space for creativity, social enterprise and community collaboration for youth to build sustainable futures for themselves. The Studio includes a collaborative workspace, opportunities for the arts, and business incubation program called Futures Studio.

4.12.15 Maker Space and Design Laboratories

4.12.15.1 Makerspaces

Makerspaces are community centers or co-working spaces that provide access to a series of tools and light equipment for fabrication and prototyping, most significantly 3D printers and open source hardware board toolkits and technology.

4.12.15.2 ArcHub PNH/TRYBE

ARC Hub PNH is a 3D design and digital fabrication service provider and was founded by two Cambodian-American siblings KiHow Tran and KiChong Tran in 2013. ArcHub was initially based in SmallWorld, moved to CoLAB, and is now located at TRYBE.

In January 2016, with a grant from USAID's Development Innovations (DI), ArcHub implemented Think Global Make Local (TGML), an eight-week course on product development intended to create a cohort of young Cambodian designers and entrepreneurs with the confidence and ability to take their ideas from conception to market. Ten participants chosen through an application and interview process developed a product idea, learned 3D

design and digital fabrication techniques to prototype and iterate their ideas, and developed basic business skills.

The course focused on hard technical skills, but entrepreneurship skills like market analysis, process management, business planning, presentation skills and public speaking needed further development in order to meet the participants' goals. In retrospect, both participants and facilitators noted that more time and space were needed for building prototypes.13

Between 2016 to 2017, ArcHub and TRYBE offers a series of grant-funded rapid skills training and boot camps such as Design Challenge, Makerthons, and Invent for Arg. With learnings from the TGML, in addition to technical skills these training workshops emphasized entrepreneurship skills and market analysis. More time and resources were dedicated to coaching on problem statements, research, human-centered design, customer and business sector interviews. ArcHub currently offers 3D printing classes, and are interested in extending their offerings of design training.

4.12.15.3 ArrowDot

ArrowDot is a 100% Cambodian-owned electronics training and consulting company offering courses in Programmable Logic Controllers (PLCs), Arduino microcontrollers, and basic electronics. Realizing that students lacked access to electronic equipment and opportunity for practices, ITC graduate and founder Bunchat Yim started offering classes to students. Starting with ten students in 2012 in basic electronic training, ArrowDot now serves 70 students. Their more advanced course offerings cover robotics and drones. ArrowDot

13 Interview with two TGML participants and representative of ArcHub/TRYBE.

estimates that 30% of their students are already in the workforce, with many of these currently enrolled in their PLC program.

ArrowDot also offers services to NGO partner People in Need, and training for Liger Leadership Academy. They offer some contract fabrication with their 3D printers, producing models for architects and parts for Doy Doy, a STEM toy product consisting of straw-like silicone tubing that can be linked to form structures using connectors that were prototyped on ARCHub PNH's 3D printers during the TGML. ArrowDot currently offers a retail outlet, selling electronic parts sourced from China, physically located inside their office.

4.12.16 Design labs

Design labs are essential for hardware manufacturing and related rapid prototyping.

They serve to design, test, and iterate new products and tools.

4.12.16.1 The Golden West Design Lab

Although not a public-facing design facility, The Golden West Design Lab, launched in Phnom Penh in 2014 and is spearheaded by Director of Applied Technology Allen Dodgson Tan (also the founder of STEM Cambodia). It is one of the country's most advanced rapid prototyping and production mini-factories. The Lab employs and trains Cambodian engineers, and serves to design, test and iterate new products and tools that can be rolled out to improve the process of mine action and ordnance disposal initiatives worldwide.¹⁴

4.12.16.2 Bespokh

Similarly, Bespokh is not a public-facing design facility, but is a newly registered company owned by two expatriates with long-term ties to Cambodia—one of whom was the founder of the now closed CoLAB. The company specializes in design, innovation and

¹⁴ The Golden West Design Lab. Access at goldenwesthf.org/what-golden-west-humanitarian-foundation-does/engineered-solutions/ on November 2, 2020.

manufacturing consultancy. Most of this network was active in Hackerspace Phnom Penh, and in many ways, Bespokh seems like the commercial arm of the Hackerspace.¹⁵

4.12.17 Competitions and Awards

Competitions are designed to attract talents in the tech and entrepreneurship scene. They may offer capacity building, business skills training, and feedback. Awards are programs designed to recognize and celebrate local role models.

4.12.17.1 Startup Weekend Cambodia

Startup Weekend event is a 54-hour pitching style rapid entrepreneurial training boot camp. Startup Weekend Cambodia was established in Cambodia in 2011 by a community of technology and entrepreneurship enthusiasts. Before the influx of pitching style competitions events brought by co-working spaces since 2015, Startup Weekend was the only idea-stage training boot camp where anyone—both students and professionals— interested in entrepreneurship could find a team, work on a prototype, access mentors, and pitch idea to receive rapid feedback.

Startup Weekend Cambodia took place almost once every year between 2011 to 2016, and they were not theme specific. Realizing the challenge in engaging with mentors and wanting to better linking up with other opportunities such as incubator and accelerator programs (see 'Competitions and awards' below), Startup Weekend events since 2016 are themed. Past themes include education, fin-tech, and tourism. Startup Weekend event was organized outside Phnom Penh for the first time this year in its Siem Reap Travel Edition 2018, in which it serves as a selection process for the Mekong Business Initiative MIST Tourism.

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¹⁵ Bespokh. Accessed at http://www.bespokh.com/ on November 5, 2020

4.12.17.2 Cambodian ICT Award

Launched by the Ministry of Posts and Telecommunications in 2015, the Cambodian ICT Award (CICTA) recognizes ICT achievements among entrepreneurs in Cambodia. The main sponsor for the Award program is Smart Axiata. To be eligible to apply, companies must be locally registered in Cambodia (with the exception of startups), intellectual property rights for the product must be owned by the company which is eligible to nominate, and at least 51% of the product development efforts, including R&D, and design must be done within Cambodia. The winner of the CICTA is qualified to compete in the ASEAN ICT Award program.16 BookMeBus was the winner of the 2016 competition.

4.12.17.3 Cambodian Women in Tech Award

In its effort to attract more women to pursue tertiary education in science, engineering, and technology, and realizing that young girls are discouraged from pursuing these field because of the lack of female role models, the Ministry of Posts and Telecommunications established a new program called the Cambodian Women in Tech Award. Launched in March 2018 prior to the International Woman's Day, the award recognizes three categories: The ICT Engineer Award, the Cambodian Woman ICT Entrepreneur Award, and the Cambodian Woman ICT For Community Award.

4.12.17.4 Cambodian Young Entrepreneur Award

In 2015, to recognize and raise the profiles of the most outstanding Cambodian young entrepreneurs and their businesses, the Junior Chamber International Cambodia (JCI Cambodia) and Young Entrepreneurs Association of Cambodia (YEAC) launched the

 $^{16}\,$ Cambodia ICT Award. Accessed at http://www.cambodiaictawards.com/#GUIDELINES on November 6, 2020.

Cambodia Young entrepreneur Awards (CYEA).¹⁷ The Award program is organized with supports from Ministry of Industrial and Handcraft and Ministry of Commerce.

The JCI and YEAC are key support organizations for traditional SMEs and were naturally at a distance to early-stage startups and support programs for technology innovations. They have made an effort to shorten the distance by including award category for smart technology entrepreneurs in 2016 and a category for startup entrepreneurs in 2017. Codingate was the award the winner in the technology category in 2016 and Morakot, a homegrown core-banking system for Microfinance Institution, in 2017. DoyDoy, alumni of Think Global Made Local in 2016, and Cellcard Changemaker Lab in 2017, was awarded the Startup Entrepreneur Award in 2017.¹⁸

4.12.18 Incubators and Accelerators

Incubators and accelerators are both early-stage entrepreneurship support programs. 19 Incubators can be grant-funded, government-sponsored, corporate sponsored, or university-based. There are multiple ways to differentiate incubator from accelerator, but the nuances are often blurred. Most key informants in Phnom Penh differentiate incubator from accelerator based on project maturity, but often refer to entrepreneurship support programs as "incubators and accelerators". The majority of incubation programs in Phnom Penh, with the exception of SHE Investments, works with university students and recent graduates in idea-stage projects. These incubators are either corporate-sponsored or grand- funded. They provide mentorship, technical assistance, and often some form of seed funding to help startup teams develop their

 $^{17}\ Cambodian\ Young\ Entrepreneur\ Award.\ Accessed\ at\ http://cyeaward.com/\ on\ November\ 8,\ 2020.$

¹⁸ Madeleine Keck. Bright young minds celebrated at Cambodian entrepreneur awards. The Southeast Asia Globe. August 11, 2018. Accessed at http://sea-globe.com/cambodias-bright-young-business-minds-celebrated-entrepreneur-awards/ on November 9, 2020

¹⁹ Early Stage Entrepreneurship Support Programs. Ewing Marion Kauffman Foundation. Accessed at https://www.kauffman.org/microsites/state-of-the-field/topics/entrepreneurial-support-programs on November 10, 2020.

ideas into a minimum viable product (MVP). University- based incubator programs are emerging as of April 2018.

Accelerators support early-stage ventures. Similar to an incubator, through mentorship, technical assistance, and access to seed investment through competitions, accelerators help startup teams, with at minimum an MVP, to scale. ²⁰ Accelerators may be corporate-sponsored, grant-funded, or privately-funded. Privately-accelerators operate primarily as an early-stage investor in startups. Applications to this kind of accelerator are typically open to any founder, and they are followed by a rigorous screening process to narrow down to the final cohort of startups. Grant-funded and corporate-sponsored accelerators operate similarly, but usually with a focus on a specific industry sector or theme.

2015 marked the influx of co-working spaces in Phnom Penh. They each ran their own events, workshops, support programs, and idea-stage competitions with the aim of attracting talents into the tech innovation sectors. Regional accelerators started to engage with local actors to run programs locally and to identify Cambodian qualifiers.

²⁰ Mulas et al. (2015)



Figure 4-2: Incubators and Accelerators Programs Accessible to Cambodian Innovators and Entrepreneurs in 2018, including Regional Accelerators with Cambodian Alumni Source: Desk research

4.12.18.1 Business Model Competition (BMC Startup Accelerator)

Previously known as the National Business Plan Competition, the BMC Startup Accelerator is the longest-running business simulation program in Cambodia. Founded in 2006 by Stephen Paterson, Advisor & Program Coordinator for Entrepreneurship and Innovation at the National University of Management in Phnom Penh, this accelerator program is conducted in partnership with McKinsey & Company, their main knowledge partner.

This program has now expanded to include the Mekong Business Challenge, an annual entrepreneurship program and competition involving university student teams from the Greater Mekong Sub-region, including Bhutan. The format of the program has transitioned from a business planning to a business model competition. The new approach encourages the

team to test and validate their business models assumptions and to instill the concept of learning from failures, which is essential in innovation.

Cambodian teams of university students and recent graduates apply to participate in the BMC Startup Accelerator. The program is designed to launch new businesses and social ventures through an intensive three-month program which includes training seminars, weekly team consultation mentoring sessions, and access to some funding. Winning teams receive cash prizes and are qualified to compete in the Mekong Business Challenge. Winners of the Mekong Business Challenge are qualified to compete in the International BMC in the U.S.A.

4.12.18.2 SmallWorld Cambodia

SmallWorld's business interests include tech, real estate, tourism and hospitality, agriculture and food processing. Through physical workspace, training and mentorship programs, and access to a network of investors, SmallWorld has provided opportunities to more than fifty startup teams and successful local ventures including ArcHUB PNH, ArrowDot, BookMeBus, and Codingate.²¹

Although it does not have a makerspace facility in house, SmallWorld has an interest in hardware manufacturing. It is currently working on launching a project that aims to assemble low-cost laptops from parts it will import from China. The software for which is being built by an in-house team. Having dabbled in hardware projects and agri/food processing, SmallWorld observes the lack of testing facilities a constraint for many students and entrepreneurs.²²

SmallWorld claims that it does not have an in-house formal incubation or acceleration program; however, it collaborates with other actors to run programs occasionally. In 2015,

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²¹ See a list of startups originated from SmallWorld here: http://smallworldcambodia.com/about-us/

²² Interview with key informant

SmallWorld ran a 3-month accelerator program in collaboration with Tiger Mekong. Participants of this accelerator included BookMeBus Founder Langda Chea.

BOOMCAMP Incubation: In early 2018, SmallWorld signed a Memorandum of Understanding with the National Institute of Posts, Telecoms & ICT (NIPTICT), Institute of Technology Cambodia (ITC), and Norton University to run an incubation program called BOOMCAMP for their students. The program includes 11 intensive sessions on a weekly basis and will be run by one or two experts who will mentor the students' work to ensure progress. The course is designed to take students with an idea through the process of launching. It includes a financial strategy session that discusses how to bootstrap while verifying product-market fit.

BOOMCAMP for ITC is run in collaboration with Emerald Hub and with supports from Smart Axiata and EZECOM.²³ The BOOMCAMP incubator program is managed and implemented by an all-Cambodia core team, which includes key persons in the tech ecosystem namely Rithy Thul and Chantra Be.

4.12.18.3 Impact Hub Phnom Penh

Impact Hub Phnom Penh runs some grant-funded and corporate sponsored support programs for startup ventures and social enterprises each year. The type of program available varies each year. The bulk of Impact Hub idea-stage support programs targeted university students and professionals under the age of 30 years old and includes hackathon- style pitching competitions during the pre-incubation selection.

Support programs ranges from 3 months to 6 months, to one year. To continue engaging with of its entrepreneurship support programs, Impact Hub launched an Entrepreneur Club, a

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²³ Euan Black. Cambodia startups turn the heads of global investors. Southeast Asia Globe. Published August 1, 2017. Accessed on November 3, 2020 at http://sea-globe.com/cambodia-startups/

Facebook group with over 200 members. Members get information about opportunities, join regular master classes and meet up, and get an extra personal mentoring, all of which is free of charge.

4.12.18.4 EPIC Cambodia

Impact Hub Phnom Penh was USAID's Development Innovations (DI)'s implementing partner for EPIC Cambodia, a one-year incubator, and accelerator program in 2016. The program was specifically built to address the gaps that Impact Hub and DI program have heard about from Cambodian entrepreneurs, especially in very early stages of developing their startup concepts, that investors are often interested in more mature startups, and early-stage ventures have trouble attracting investment.²⁴

The program started with an 8-week incubation where participants accessed workshops, boot camps, tailored coaching. With an emphasis on human-centred design and theory of change, the sessions focused on product development, customer development, businesses and financial modeling. Incubation ended with a demo day pitch event where five of the eleven teams were chosen to move on into 36-week of acceleration with \$20,000 worth of technical assistance and startup supports.

4.12.18.5 Current programs

In 2018, Impact Hub Phnom Penh runs two incubation programs, namely SmartStart, Toyota Impact Challenge, and a training program called Youth EcoLab. For growth-stage initiatives, Impact Hub is implementing LEAN, and the SDG Fellowship, a program in partnership with UNDP Cambodia. Impact Hub currently plans to launch EPIC Regional in 2018. The SDG Fellowship is the only program that opens to expats.

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²⁴ Matthieu de Gaudemar. EPIC finalists accelerate business plans. The Phnom Penh Post. February 27, 2018. Accessed at https://www.phnompenhpost.com/business/epic-finalists-accelerate-business-plans on November 3, 2020.

SmartStart: A Young Innovator Program, funded by Smart Axiata since 2016, is applicable to university students. Implemented by Impact Hub Phnom Penh, the nine-month program offers access to funding, rapid skill training boot camp, and mentorship. Winning teams receive seed funding to refine their business idea and a fully paid trip further to visit Google and Facebook in Singapore.

Toyota Impact Challenge: Modeled after 2017's Cellcard Changemaker curriculum, this Toyota Cambodia's first challenge fund supports innovators aged 18 to 30 to address transport, smart cities, road safety, and the environment. Ten teams are selected for six months of incubation at the Hub. One winning team will be awarded seed money grow their venture. Youth EcoLab: A 3-month program, supported by the US Embassy, for university students. Ten teams are selected for the program, which includes a field trip, ten master classes, mentoring and coaching cycle, and a demo day. 26

LEAD: In this 4.5 month-program, participants have a choice of two pathways: go-to-market place strategy and funding raising, and 2) expansion and growth. Program participants access international mentors and support from Impact Hub team to collaborate and work with relevant stakeholders. The program was implemented in 2017 with support from Transparency International Cambodia. This year's program is fee-based but offers some scholarships.²⁷

4.12.19 SHE Investments

SHE Investments is a registered not-for-profit social enterprise supporting women with micro businesses to scale to sustainable and impactful SMEs. SHE runs SHE Incubator and

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²⁵ Toyota Impact Challenge. Impact Hub Phnom Penh. Access at https://phnompenh.impacthub.net/toyota-impact-challenge/ on November 3, 2020.

²⁶ Youth EcoLab. Impact Hub Phnom Penh. Access at https://phnompenh.impacthub.net/youth-eco-labs/ on November 2, 2020

²⁷ LEAD. Impact Hub Phnom Penh. Access at https://phnompenh.impacthub.net/lead/ Nov. 1, 2020.

SHE Accelerator Programs, both of which are six-month training and mentoring programs for women micro-entrepreneurs. They are the first and only gender-focused and culturally tailored business development programs for women in Cambodia. Through grants and donations, SHE provides scholarships for women who cannot afford training fees to attend the programs. To subsidize costs and operational expenses, SHE provides consulting and training services, primarily for NGO partners, to design and deliver women's economic empowerment programs such as financial literacy, entrepreneurship, business management training, and more.

SHE Incubator Program: Designed for women who are running early-stage and micro-sized enterprises, the program consists of a total of 13 full-day workshops over 6-months, with mentoring sessions between workshops.

SHE Accelerator Program: Aimed to create investment-ready enterprises and link entrepreneurs to financing opportunities, the program is designed for women with established micro, small and growing enterprises who are already creating impact for communities and want to scale that impact. Although similar to the Incubator in structure, the participants in the Accelerator Programs are taught higher-level business skills and are connected to professionals throughout the program.

The programs require a high degree of commitments from the participants. The program participants must be working on their businesses full-time and must attend all training sessions. Learning from previous programs, SHE implements some measures to reduce dropout. Program participants are required make a small investment of \$50 minimum toward the program, some of whom may get reimbursed. Between 2015 and 2017, SHE supported 68 women micro-entrepreneurs across with business in various sectors. Alumni of

SHE Accelerator Program includes Co-Owner and Manager of Solar Green Energy Co., Ltd. In 2018, SHE supports businesses working in tech and e-commerce sector.

4.12.20 Energy Lab Asia

EnergyLab Asia launched a Phnom Penh office in early 2018, inspired by and in partnership with EnergyLab Australia. It aspires to runs a range of programs to help entrepreneurs develop, launch and grow new energy businesses in the region. It hopes to do by offering a range of services including co-working space, ideation and opportunity analysis, support programs and investor introductions. EnergyLab Asia programs cover the full spectrum of startup journey - from student engagement, ideation, refinement, business model validation, incubation right through to scale and investment.29 It remains to be seen how EnergyLab can work with the existing tech innovation and startup support programs in Phnom Penh.

4.12.21 CJCC Accelerator

CJCC Accelerator is organized by the Cambodia-Japan Cooperation Center (CJCC), located at RUPP, in partnership with the Cambodian Investor Club (CiC) and the YEAC, with supports from Japanese International Cooperation Agency (JICA), the Mekong Strategic Partners (MSP), Emerald HUB and more. This 8-month program is applicable to early-stage and growth-stage startups. In addition to workshop, training, and coaching, program participants benefit from fundraising opportunities from a Japanese Crowdfunding Platform and Cambodian Business Associations.³⁰

²⁸ SHE Investments Evaluation Report 2015-2017. SHE Investments. December 2017.

²⁹ EnergyLab Asia programs. EnergyLab Asia. Accessed on Nov. 3, 2020, at https://energylab.asia/programs

³⁰ CJCC Accelerator. Accessed at http://cjap.cjcc.edu.kh/ on November 3, 2020.

4.12.22 Mekong Business Initiative (MBI)

Mekong Business Initiative,³¹ a development partnership between Australian Aid and Asian Development Bank, promotes incubation and acceleration of enterprises by helping startups in Cambodia, Laos PDR, Myanmar, Thailand, and Vietnam access a larger pool of resources. In addition to access to finance, via the Mekong Angel Investor Network (see below), MBI supports mentorship programs to help startups develop their business management skills. MBI runs four accelerators in tourism, agri-tech, fintech, and smart cities, and have partnered with Cambodian-based support programs to recruit qualifiers for the tourism and agri-tech programs. Fintech and smart cities programs are only currently available in Vietnam.

The Mekong Innovative Startup Tourism (MIST) and Mekong Agriculture Technology Challenge (MATCh) accelerators offer two tracks: the first track seek-early stage startups, and the second track seeks mature local or international SMEs looking to expand into the Mekong Region.

MIST Startup Accelerator: Started in 2016, MIST is a joint venture of the Mekong Tourism Coordinating Office and BMI. This program is eligible for early-stage startups in Cambodia, Lao PDR, Myanmar, Thailand, or Vietnam. To be considered, startup teams must have a minimum viable product already, and at least one founder native to one of these countries.

Program participants benefit from an all-expense paid intensive bootcamp; compete to get partnered with an expert mentor for a 6-month of structured and intensive mentorship; and compete to win in-kind support, prize money, and networking opportunities at conferences. BookMeBus and CamboTicket are alumni of the MIST Tourism Startup Bootcamp 2017.

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³¹ Mekong Business Initiative. Accessed at http://match.mekongbiz.org/startup-accelerator/ on Nov. 2, 2020

In February 2018, MIST Startup Accelerator partnered with the Startup Weekend Cambodia's Siem Reap Travel Edition to select Cambodian qualifiers for the program. Winner of the Startup Weekend Siem Reap automatically qualified as a MIST 2019 semi-finalist.³²

MATCh Startup Accelerator: This program is for early-stage entrepreneurs who are ready to go market with a developed product or prototype. Program participants benefit from access to customized bootcamps, mentorship, opportunities to receive investments and grant funding from MATCh partner and investor network.

MATCh partners in Cambodia includes SHE Investments, Confluences, and TRYBE. Cambodian alumni of the program include New Idea Enterprise, producers of banana sugars, and Kherme Organic, a supplier of certified organic products including fresh vegetables and fruits. In addition, these programs, MBI supported the Young Entrepreneurs Association of Cambodia (YEAC) and the Cambodia Chamber of Commerce to establish a Business Information Center in 2017. The center promotes transparency and effectiveness, and provides SMEs with information about business laws and regulations, as well as business opportunities and support services.

Confluence Incubator

Founded in 2014 and based in Phnom Penh, Confluence supports French startups and startup projects that are looking to operate or invest in Cambodia by providing a gateway to the Cambodian markets. Confluence was selected as a partner of the MIST Market Access

³² Peter Ford. Geeks in Cambodia. February 28, 2018. Accessed at https://bit.ly/2InxGpo on Nov. 4, 2020

³³ Mekong Business Initiative. Accessed at http://www.mekongbiz.org/cambodia/ on Nov. 3, 2020.

program in 2017 to introduce MIST startup teams from Thailand, Vietnam, and Malaysia to Cambodia.34

Tiger Mekong

In partnership with SmallWorld Cambodia, Tiger Mekong promotes technology startups by hosting networking events, organizing accelerator programs, and facilitating introductions to investors.³⁵

Startup boot camp Fintech

Focused on financial innovation and open to Cambodian teams, this accelerator program provides startup teams, funding, collaboration, coaching, mentorship, office space in Singapore and access to a global network of corporate partners, mentors, venture capitals, and investors. Banhji, free and localized industry-specific accounting platform, and Morakot have both benefited from Startup boot camp Fintech Singapore in 2016 and 2017 respectively.³⁶

4.12.23 Funders and Investors

Seed funding for idea-stage ventures are predominantly grants from corporate sponsors. Equity-based seed investments are accessible via SmallWorld Venture and Corco Angel. Although investors are increasingly interested in funding startups, there is only one local fund available for early-stage startups, which is the Smart Axiata Digital Innovation Fund. SHE Investments, the Cambodian Investor Club, and the EnergyLab Asia facilitate access to investments through their network of investors. Other funds are available regionally.³⁷

BMC Startup Accelerator: Three winning teams receive seed funding of \$5000, \$2000, and \$1000 respectively.

³⁶ Startupbootcamp Fintech. Accessed at https://www.startupbootcamp.org/?s=cambodia on Nov. 2, 2020.

³⁴ Samantha Fuentes. Confluences runs market access tour for 4 MIST startups. December 4, 2017. Accessed at http://geeksincambodia.com/confluences-runs-market-access-tours-for-4-mist-startups/ on Nov. 2, 2020.

³⁵ TigerMekong website. Accessed at http://www.mekongangels.info/ on November 1, 2020.

³⁷ Entrepreneurial Ecosystems. Emerging Market Consulting (draft presentations) March 2018.

SmartStart: 15 teams are selected for bootcamp training. Five winning teams each receive \$4000 in cash prize to further refine their business idea and a fully paid trip to visit Google and Facebook in Singapore.

Toyota Impact Challenge: 10 teams are selected for six months of incubation at Impact Hub. One winning team will be awarded \$10,000 to grow their venture.³⁸

SHE Investments / Thriive Cambodia: SHE facilitates access to investments for early-stage enterprises in its incubation program. ThriiveCapital, delivered by SHE Investment. Small woman-run businesses can apply for 0% interest loans of up to \$ 10,000 for equipment that will help their business scale. 10% of the loan is required to be repaid, and 90% of the loan amount must be "paid forward" to the local community, through in-kind charitable donations and social impact. Recipient of a ThriiveCapital loan receives 6-months of business training and professional business consulting.

Development Innovations: Funded by USAID, DI provides grant funding for technology-enabled projects that help solve development problems in Cambodia. DI has funded Social Enterprises Cambodia, SHE Business Information Portal, EPIC Incubation, and more.³⁹

MIT Inclusive Innovation Challenge: Flagship initiative of the MIT Initiative on the Digital Economy (IDE). Early and growth stage startups and entrepreneurial organizations are applicable. Impact Hub Phnom Penh and NUM Social Innovation Lab are the official partners for Cambodia. 40The Challenge award over one million dollars in prizes each year to inclusive innovators, defined as entrepreneurs who are using technology to reinvent the future of work. Smart Axiata Digital Innovation Fund (SADIF): A venture capital fund with 5 million USD to

⁴⁰ Outreach partners. Accessed at https://www.mitinclusiveinnovation.com/regions/asia/ on Nov. 5, 2020.

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³⁸ Toyota Impact Challenge. Impact Hub Phnom Penh. Access at https://phnompenh.impacthub.net/toyota-impact-challenge/ on November 2, 2020.

³⁹ Project portfolio. Access at http://www.development-innovations.org/projects/ on Nov. 3, 2020.

invest in Cambodian-based, digital service companies and startups in early stage and growth stage. In partnership with Forte Insurance, the fund was launched in March 2107 and managed by the Mekong Strategic Partners. The Fund received well over 100 applications as of this reporting. After due diligence and negotiation, the Fund has managed to invest in only three startups, namely Joonak Delivery, Morakot, and Aniwaa. Selected startups receive mentoring and introduction to industry experts.

SmallWorld Venture: In 2014, SmallWorld piloted idea-stage funding under \$2500. Startup teams were selected for this fund on an ad-hoc basis. SmallWorld formalized this fund in early 2018, with a fund manager in place, and offers between \$200 to \$5000 per startup team. Selected teams are offered support to help define their business model, pitch, financial strategy, introduction to potential startup team members and mentors. SmallWorld's portfolio of projects includes real estates, tourism and hospitality, agriculture and foods processing. SmallWorld has a plan to develop a follow-up fund of up to 50K.

Corco Ange: Co-founded by Rithy Thul of SmallWorld, Sila Chy of Sabay Digital, and others, Corco Angel is a Cambodian based angel investor network that funds idea-stage startup teams. It was the first to invest in BookMeBus.

OBOR Capital: Venture capital and project management firm based in Phnom Penh, Cambodia, investing in early-stage startups and SMEs. OBOR invested in CamboTicket.

Insitor Impact Fund Asia: Regional venture capital funding investing in early-stage businesses that solve critical social issues. Selected startups are provided support in strategic planning to scale their impact.

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⁴¹ Key informant interview

UBERISE: Pioneering impact investing in Southeast Asia, this venture capital firm manages a pool of capital and invests in entrepreneurs who are designing and executing innovative business models smart technologies in agriculture, access to energy and water, waste recycling, women empowerment, and climate. The firm invests at the very early stage from \$50,000 through technical assistance loans in high potential business concepts and then through multiple rounds of capital from \$200,000 up to \$2M.

Emerging Market Advisors: Singapore-registered private equity fund manager investing in growth and mature businesses. The portfolio includes 13 businesses across a range of sectors including education, financial services, foods and beverages, and agricultural processing.

Cambodian Investor Club (CiC): CiC is Cambodia's first crowdfunding platform aiming to mobilize investors to invest in Cambodian SMEs. Given the rising traction in technology in the Kingdom, CiC is interested in investing in early-stage technology startups but admitted that it needs to build domain knowledge in technology and engage with its investor to build trust before investing. CiC is currently developing a start-up accelerator to create an opportunity for its members to interact with technology startups.

Mekong Angel Investor Network: Venturing into Cambodia startup scene in 2016, MAIN is a network of angel investors, investing in early-stage startups. It encourages investment by organizing delegations of investors from around the world to come to Southeast Asia to engage with startups and local investors. Selected startups are matched with mentors to receive coaching supports.42 MAIN invested in BookMeBus.

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⁴² Sok Chan. Angles looks for startups. Khmer Times. September 9, 2016. Accessed at https://www.khmertimeskh.com/news/29547/angels-look-for-start-ups/ on November 1, 2020.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussions

Attention toward social entrepreneurship and its importance as a self-sufficient and sustainable solution toward global social problems has risen dramatically within the past 30 years since Bill Drayton, Akosha founder, devised the term (Lumpkin et al. 2011). Consideration of social enterprise as a topic of research has followed suit. Scholars have deliberated the differences between social and commercial entrepreneurship along a variety of magnitudes, proposing ultimately that entrepreneurial precursors and products differ within social contexts. Studies of entrepreneurial processes, such as those of Entrepreneurial Orientation (EO), however, have remained relatively untouched in terms of empirical analysis within social contexts. Theoretical perspectives on the matter have recently begun to emerge,

reasoning that three salient dimensions of EO exist in social contexts-innovativeness, proactiveness, and risk taking. Lumpkin et al. (2011) suggest that amid complex social problems, limited access to resources and opportunities calls for greater levels of innovativeness and proactiveness. Through the use of one of the first empirical studies, Syrjä et al. (2013) confirm the former and suggest an additional dimension of persistence in social enterprises operating in Western contexts. Building upon these results, this study tests EO as a firm-level strategic orientation made up of four dimensions: innovativeness, proactiveness, risk taking, and persistence.

A specific uniqueness of this study comes in its effort to take the Western EO construct, with its proposed social context modifications, and test the degree to which it is applicable in a non-Western environment. While numerous studies have used the EO construct in developing economies, rarely has the construct itself been examined critically as to whether its dimensions do comprehensively underpin business strategy and success in these areas. Essentially the purpose of this study was to contribute to the knowledge arena by making two critical contributions; the study enhanced the current understandings of EO in social contexts in developing economies and the study aimed to better fit the proposed EO model to the unique contexts of developing economies.

The case study region of Cambodia represents one of the world's least developed countries; Cambodia is an area characterized by low levels of socio-economic development and weak human and institutional capacities. Marked by high levels of dependency, Cambodia is currently seeing social enterprises gain traction in the effort to tackle various social and environmental issues. This mimic international trends in the rise of social enterprises worldwide, and in particular, within developing economies. With strong linkages between EO

and firm-level performance, understanding how this firm-level strategic orientation manifests itself within social and development contexts is relevant to academics and practitioners alike. Lumpkin et al. (2011) theorize that the EO dimensions of autonomy and competitive aggressiveness are seriously impacted by the unique characteristics of social contexts. Indepth interviews from this study confirm that these dimensions do not play a principal role in social enterprises operating in Cambodia. However, these dimensions also do not prove to be relevant for non-local entrepreneurs, whether it be within commercial or social enterprises, or those dependent upon the tourism industry. Non-local entrepreneurs are highly dependent upon networking, and hence, less competitive toward their counterparts. Expatriate communities and support systems are commonplace throughout the Kingdom of Cambodia, which strengthens cooperative relationships between non-local entrepreneurs. Furthermore, non-local entrepreneurs gain by establishing local ties, and thus, are highly cooperative with their local counterparts. Social and commercial entrepreneurs operating within tourism-based industries, which are hugely present within Cambodia, also profit from bettering tourist experiences as a whole in the area. This means cooperation with competitors, forming networks and alliances, and creating an overall positive experience that will boost tourism in the area. Hence, future studies of EO in developing economies should take into consideration the role of collaboration for social and commercial entrepreneurs over and above autonomy and competitive aggressiveness.

The three salient dimensions of EO, innovativeness, proactiveness, and risk taking proved to be relevant in non-NGO affiliated social enterprises in Cambodia, although each of these constructs did not appear in quite the same ways as depicted in current Western-based EO literature. Quantitatively speaking, findings of the study support the assertion that non-

NGO affiliated social enterprises compete equally on all dimensions of entrepreneurial orientation with their commercial enterprise counterparts. Statistically speaking, no significant difference was found between the two groups, meaning that there is no evidence to support the idea that commercial entrepreneurs in Cambodia are any more innovative, proactive, persistent, or willing to take risks than social entrepreneurs. In fact, the mean of the summative EO score and the medians from all summative sub-dimension scores show that social enterprises demonstrate higher levels of EO than commercial entrepreneurs in the area.

While social entrepreneurs in Cambodia were able to demonstrate innovativeness on all of the same fronts as commercial entrepreneurs, due to their social missions, they were exposed to additional realms in which to innovate. Examples of this can be found in regard to innovative labor and labor-related strategies for beneficiary management. Furthermore, depending on the organizational structure of the social enterprise, reaching the BoP was achieved by forging innovating partnerships to find and hire BoP employees, and price points were lowered through product innovation to reach the BoP as consumers. Formal innovation processes and techniques were lacking in both social and commercial enterprises; entrepreneurs seemed to act in innovative ways, yet avoid the formal commitment to research and development or formalized approaches to creative idea development. Technological innovation also proved to be an area that lacked momentum in both social and commercial entrepreneurial groups. Some of the advantages of innovating, however, perhaps are weakened by contextual considerations in Cambodia, such as the feeble existence of intellectual property laws and regulations or delays in market readiness.

Social entrepreneurs in the study displayed the willingness to take substantial personal and financial risks, particularly at the onset of enterprise development. However, research

from the study agrees with Syrjä et al. (2013) in that social enterprises in Cambodia are risk-averse in regard to their social impact. This perhaps explains why propensity for risk-taking diminishes over time; once a social entrepreneur sees their social impacts being realized, they are less willing to take any chances that could compromise their beneficiaries. Social risks, such as harm to an enterprise's reputation or loss in achieving social impact, were mentioned in scholarly literature (Morris et al., 2011), but were not particularly emphasized by social entrepreneurs in the study. Perhaps this is due to the fact that social impact metrics are lacking in the social enterprise sector as a whole, and particularly in developing economies like Cambodia (Hanley et al., 2015). Hence, it is often difficult to measure and evaluate the social impacts that are fulfilled, and consequently, difficult to gauge 'missed opportunities' or losses in achieving desired results. Moreover, damage to reputation may be of lesser concern for social enterprises in Cambodia, as attention and criticism seems to have taken a focus on the longstanding and more prominent NGO sector operating in the area.

The dimension of proactivity is somewhat transformed in the highly unpredictable environmental of Cambodia. Typically, proactivity is thought to encompass an opportunity-seeking and forward-looking perspective, the ability to anticipate future demand, and the introduction of products and services ahead of competition. Cambodia is marked by political instability and a diminished capacity to cope with natural disasters, much like many other developing economies. Capricious external factors hamper efforts by entrepreneurs to plan for the future. Furthermore, the concept of demand becomes binary in some social enterprise settings; demand can exist from beneficiary groups as well as from customers. Social entrepreneurs exhibit proactivity in both regards, however, striking a balance between current beneficiary demands and future beneficiary demands can prove difficult with pressing social

issues. As discussed earlier, competitive aggressiveness is modified in social enterprise and development settings, so proactivity in this regard is also somewhat altered. Social enterprises in Cambodia expressed the desire to be competitive in the production of goods and services, yet also were very supportive of competitors and other ventures in the area. Negative sentiments toward competition were not noted.

In terms of persistence, Syrjä et al. (2013) conclude, "the commitment to the social mission causes the social entrepreneurs to be very persistent in pursuing the goals of the firm" (p. 5). This definition is made more complex by Wu et al. (2007) in their understanding of persistence as the adherence to a course of action, despite risks and difficulties. Results of the study are inconclusive in this regard because social and commercial entrepreneurs in the area did not emphasize high amounts of adversity, and thus, persistence against adversity is difficult to conclude. In terms of entrepreneurial persistence in testing new ideas and deciding to keep (persist) or discard them, an alternative perspective of persistence presented by Wu et al. (2007), social entrepreneurs seemed particular determined in regard to programs and services that facilitate beneficiary betterment, such as financial literacy and education programs. On the other hand, products and services for (non-beneficiary) consumers were more likely to be discarded if they presented little profit or success.

As results from this study show that current understanding of proactivity do not adequately fit within the context of Cambodia, this study suggests that Agility may prove to be a better- suited EO dimension for developmental contexts. Bernardes et al. (2009) define agility as "an approach to organizing that provides for rapid system reconfiguration in the face of unforeseeable changes". Agility in this sense is thought to trump flexibility, which relates to the use of existing procedures to cope with foreseeable changes (Wadhwa & Rao, 2003).

Interviews from this study suggest that Cambodia is a highly unpredictable environment, and that enterprises are continuously facing unanticipated changes. Likely, developing economies elsewhere are equally unpredictable. Due to these circumstances, this study proposes that social and commercial entrepreneurs operating in developing economies demonstrate agility as a survival mechanism in capricious contexts. Questions remain as to whether agility would be better suited to replace proactivity as an EO dimension, or to supplement it as an additional dimension. More research would be needed in this regard.

Results from this study also suggest that Cultural Sagacity is a relevant dimension for non-local social and commercial entrepreneurs operating in developing economies. In-depth interviews with non-local entrepreneurs emphasize the need for local awareness and knowledge to survive as an enterprise. The ability to break Western norms can be thought of an additional sub-dimension of cultural sagacity. Cultural sagacity as a dimension of EO acknowledges Asheim and Isaksen's (2002) conclusion that "regional resources include place-specific, contextual knowledge of both tacit and codified nature, that, in combination, is rather geographically immobile" (para. 1). In terms of measurement on an EO scale, 'length of time spent in the culture prior to commencing business' or 'comfort with breaking Western norms' may be useful measurements. Additional research is suggested on this front.

In addition to exploring the dimensions of EO and their manifestation in social enterprises, this study represents the first of its kind to begin to consider social enterprise organizational structure and business model in relation to EO. Observations in this regard emerged entirely from in-depth interviews, in which it was clear that, although broad generalizations could be made regarding how social contexts affect EO dimensions, a one-size-fits-all approach does not accurately depict the nuances within social enterprises and their

effect on EO. In an effort to account for the differences within social enterprise structure, social enterprises were paired with Grassl's (2012) social enterprises business model. Social enterprises within this study were allocated to the following groups: Work Integration Social Enterprises (WISE), Market Intermediary Model, Entrepreneur Support Model, and Low-Income Clients Model. Each of these organizational structures of social enterprises was found to have profound effects on the way in which the dimensions of EO can be exhibited and are exhibited.

The study began by suggesting the value in understanding predominantly Western ideas of sustainability and business in the non-Western contexts. The significance in doing this allows practitioners and academics to understanding how well-established theories and principles take on new identities in such circumstances. The study of entrepreneurial orientation in Cambodia represents a small step in challenging this widely practiced convention. It is hoped that practitioners operating in developing economies are better able to tackle issues, create economic or social impact, or make vital operational decisions by implementing knowledge that is grounded in their contextual realities.

Responding to calls for a better understanding of the demonstration of entrepreneurial orientation in social contexts, this research explored the manifestation of the proposed EO model in social enterprises operating in Cambodia. The developing economy of Cambodia was shown to have significant implications on modern-day conceptions of how EO is manifested in social contexts. Results from the study were shown to support current perspectives that social entrepreneurs are highly innovative in developing solutions to their social problems and finding ways to target their selected group of beneficiaries. Furthermore, research confirms that social entrepreneurs in Cambodia were willing to take on steep

financial and personal risk, although averse to risk that may diminish their social impact. On the other hand, however, social motivations paired with the capricious contextual dimensions that are familiar to developing economies are shown to considerably modify the EO dimension of proactivity. Instead, it is suggested that cooperation and local connectivity plays an essential role in EO of social and commercial entrepreneurs in developing economies.

This study was the first known EO study to incorporate persistence as an additional dimension of EO. The newly explored dimension proved to be somewhat relevant to some social enterprises in the study, although persistence through adversity was not found to be particularly germane. When understanding how EO manifests itself within social enterprises in developing economies, two additional dimensions of EO were found to be highly relevant. Due to the unpredictable atmosphere of Cambodia, Agility was suggested as a new dimension of EO that may contribute to the success of social and commercial enterprises operating in developing economies. Cultural Sagacity was suggested as a dimension relevant to non-local social and commercial enterpreneurs operating in developing economies.

Lastly, a progressive approach was taken to the analysis of EO within social enterprises, incorporating how internal business model and organizational structure plays into the manifestation of EO. Results confirm that the Work Integration, Market Intermediary, Entrepreneurial Support, and Low-Income Clients models moderate EO in distinctive ways. This provides an important basis for future EO research that will be valuable to both academics and practitioners. Cultural and enterprise-based characteristics including size and age of the enterprise were not found to significantly affect levels of EO.

5.2 Conclusions and Recommendations

The tech innovation sector has changed significantly, and will likely continue to change quickly. Education in the form of peer-learning outside of the traditional university-based degree programs was considered a major factor in developing innovation attitude. Entrepreneurship support programs helped to shape the attitude toward innovations and exposed young people to collaborative work and built entrepreneurial mindset. The media, both local and regional, have been integral to sharing success stories and highlighting local role models. Increasing investments from the private sector helped to build infrastructure and build a pipeline for tech innovation. Commitments from the government to support the tech sector helped to boost confidence in the sector. The few successful home-grown Cambodian startups, most of which are digital innovations, have attracted regional investors and funds.

In talking to key informants, reading news and reports on Cambodia tech innovation sectors, and screening literature on support programs in the neighboring countries some common themes emerged. The tech innovation sector has succeeded in crafting a positive attitude toward technology innovation and entrepreneurship amongst young and early career Cambodians most notably in the last few years; however, the tech innovation ecosystem is still early. Startups are not widely ready for investments. The majority of startups are in pre-seed or seed stage while domain capacities in founders are developing in parallel.

The state of the landscape is instructive in that it reveals constraints in approaches to tech innovation education and support services, a need for better capacity in market analysis, and disconnections in social and professional networks. Without analyzing competitiveness of the landscape, which is beyond the scope of this study, this research recommends investing in innovation facilities, sharing of learnings to improve incubation processes, invest in equal

opportunities for social innovations, minding the mentoring gaps, building founder tenacity, and leveraging regional opportunities for investments.

Investing in Innovation Facilities

Living labs are essential for innovation. The basic principle of a living lab is to form collaboration environments among different actors and help developing products through interactive user-centric design (HCD). They provide an environment and process for testing with users' prototypes developed by entrepreneurs, companies, universities, or the public in general. Phnom Penh does not have a public-facing living lab, but a few NGOs and private sector service providers employ HCD method to further the missions of their work. At a minimum, they may be engaged as a mentor or coach in innovation support programs.

The lack of larger, better-equipped makerspaces and testing facilities is a constraint to learning and hardware development in Cambodia. A few university-based innovation centers have opened, but many lack accesses to even basic equipment. It is a challenge to equip and make sustainable such a space by the universities, but if donors and commercial entities interested in making an impact on innovation in Cambodia, this gap is real and can viably be filled. With the investments currently being made in promoting STEM education, more graduates in STEM fields can be expected to graduate in a few years' time. This is an opportunity, but it can also be a danger. Unless there are access to suitable innovation facilities to practice, while they are learning, and companies that have facility to produces hardware, for when they graduate, those graduates will not have jobs to go to. Doors to entrepreneurship will also be difficult to open

Breaking the Barriers

For such a small and close-knit community, there is a lack of communication between institutions. Each operates on its own hence there are duplicated activities and resources. Many of the Phnom Penh based entrepreneurship support programs are funded by grants or corporate sponsorships. Competition for funding and brand development, measured by how many successful startups a program can develop, may be attributed to the formation of silos.

Some actors have jumped on the "innovation bandwagon" by creating new innovation spaces and programs without a clear purpose. While these initiatives positively signal the level of buy-in at the institutional level, is crucial to examine how these new spaces and programs work with the existing communities and initiatives.

There have been efforts amongst the co-working spaces and support programs to meet regularly, most notably in the last year to share with each other's priorities and updates. These meetups happen on a semi-annual basis, and often alongside with a large-scale community building event. Many are still operating in silos with no collaboration beyond sharing opportunities in a community group, often on Facebook, and making introductions. Supporting innovation and entrepreneurship is not a zero-sum game. A much-needed collaboration is the sharing of learnings for the improvement of the incubation processes to help reduce risk of failure for the startup teams.

Investing in Equal Opportunities

Equal opportunity means a leveled playing field. Unlike urban cities in the neighboring countries, many events and opportunities for innovations and entrepreneurship in Phnom Penh are conducted in English rather than the native language. While having a strong command of English may improve a startup team's ability to pitch to investors after they have built a viable product, program participants shouldn't have to learn new concepts and method while trying

to comprehend the language in which the training is conducted. When programs require, by design, participants to have intermediate to advanced English language ability, socioeconomic inclusion is compromised.

On the gender front, efforts have been made in identifying specific barriers that prevent girls and women from becoming fully engaged in technological innovation. These efforts include an MBI-funded research conducted by the YEAC in 2017 on barriers for female entrepreneurs and the anticipated DI's research on barriers for women and girls to study or work in tech related fields. Additional efforts are needed for creation of a culture that is inclusive in the workforce, and that will translate into how women create products.

The Mentor Gaps

Mentoring is not a replacement for teaching and, at a bare minimum, mentoring support should be provided in a language and format that the startup teams are comfortable in learning. Critical success factors for startups include startup team capacity, ability to assess market needs, appropriate mentorship and business advice, and suitable coaching and training supports. Mentors have specific expertise and limited availability for coaching, and they should not be held responsible for training the teams. Thus, education and training, part of which comes from formal education, and other come from peer-learning, have to be considered. Startup team should have access to multiple types of mentors, especially during pre-incubation stage.

Building Persistence

There is a lack of understanding of what it takes to be an entrepreneur, from a social, economic, and psychological perspective. The media, both local and internal, are integral in sharing success stories of entrepreneurs, especially the Silicon Valley type-successes. While such narrative has been helpful in creating role models and boosting interests, the fact remains that the majority of startups fail -- whether or not the founders have tried their best -- and failures are not adequately discussed.

In the Cambodian context, this issue is even more prominent. Cambodia social norms, especially the face-saving culture, make it a taboo to openly admit and discuss failures unless the person has already become successful and the failure was a distance in the past. These generate romanticized ideas about what it means to be an entrepreneur.

Investors seek founders with tenacity. While young people should be encouraged to explore new ideas, they should also be encouraged to work for several years before embarking on their own ventures. Not everyone can or should be an entrepreneur, but everyone can be a creative problem solver. It is as important to develop entrepreneurial mindset, which will spur creativity, problem-solving skills, and ability to channel feedback into innovations in a workplace.

Understanding Regional Opportunities

It takes a village to raise a startup, but in Cambodia's case, it takes the entire virtual village to do so. Idea-stage support programs are saturated, and their effectiveness in helping to reduce risks of failures for new ventures needs to be evaluated. Only a few Phnom Penhbased initiatives are offering supports for early-stage and growth stage ventures, all of which are focused on specific themes or beneficiary group. Successful local early-stage tech

innovations startups, namely BookMeBus, Morakot, and CamboTicket have all benefited from regional accelerators.

Entrepreneurs need to understand what opportunities are applicable for them. Investors need to understand that startups need those who are not simply injecting money but are keen and able to help young entrepreneurs along the way. Support programs should evaluate these opportunities in conjunction with the startup teams they are supporting help identify ones that are suitable for the team.

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APPENDIX A:

Survey Questionnaire for Social Enterprises and Incubators

Part 1: DEMOGRAPHIC INFORMATION QUESTIONNAIRE Is the company a commercial or social enterprise? Social _____ Commercial _____ Other _____ Name of Company How many years has the company been in operation? What is the stated mission of the company? What sector does the enterprise's social purpose relate to? Education and training Health, nutrition and HIV/AIDS ____ Child welfare and rights

Community development	_
Agriculture/animal health	
Gender and women issues	Credit and savings
Environment and natural resources	<u>—</u>
Advocacy, democracy and human	
rights	<u>—</u>
Tourism, arts and culture	_
Humanitarian aid and disaster	
preparedness	_ Other
Who is your target group(s) of	
beneficiaries? Children	_
Women groups	_
General population	
Students and youth groups	_
Disabled persons	_
Farmers	_
HIV/AIDS victims	
CBOs/LNGOs	
Other:	
Does the company have any NGO affiliation?	
Yes No	
Other:	
What is your position in the	
Company? Founder & Owner: _	
Owner:	
Manager:	
Other:	

Who are currently the top decision makers in this								
enterprise? The founder/ founders are still in control:								
Control has changed to a different group of								
managers:	_ Other:							
How many individuals have top decision-making power?								
Can you tell me a little bit about the top decision-makers?								

							Relationship to Cambodia
							-
							Expat or Local?
						Highest Level	·Expat:
						of Education	Length of time living in
							Cambodia
						Completed	Cambodia
						·Masters	·Local:
1.						1.1400015	
2.							
3.							
4.							
5.							
What is t	he estimated	size o	of your o	rganization	n's ann	ual budget? (In US	D)
l							
	0-20,000					100,001-120,000	
			12,001-140,000				
40,001-60,000				140,001-160,000			
				160,001-180,000			
		180,001-200,000					
80,001-100,000					200,001 +		
Including	Including yourself, how many people are employed by your organization?						
ı							
			0-20				
21-40							
41-60							
61-80							
81-100							
100+							
Is your organization officially registered at an NGO in Cambodia or as a business?							
-							
NGO			Business				

Part 2: SEMI-STRUCTURED INTERVIEW GUIDELINE⁴³ Section 1: Risk*

- 1. What steps does your organization take to evaluate risk? This could encompass financial risks or social risks.
- 2. What kinds of risks have become apparent for your enterprise?
- 3. How willing is your organization to venture into the unknown?
- 4. Has there been an instance when you have invested a substantial amount of time, money, or resources into a particular project where the outcome was highly uncertain or unknown? What was the result?
- 5. Have you continued to commit resources to certain projects without yet obtaining the desired results?
- 6. In general, do you notice any particular risks of operating in Cambodia?

Section 2: Innovativeness*

- 7. How to you approach the creation of new ideas for your enterprise?
- 8. How often are your new ideas brought to life?
- 9. When you are considering changes and novel ideas, are you likely to be focusing on a certain type of change? For instance, new products, new services, new managerial or administrative processes, new markets, or new technologies? Something else?
- 10. Can you give an example of a new idea that you pursued, including what the new idea was and why it was introduced?
- 11. Are you usually coming up with new ideas and changes as a way to maintain or regain you're your position in relation to your competitors? Or, is the pursuit or new ideas a core mission of your enterprise at all times?

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⁴³ To be asked before conducting the Likert-Scale Questionnaire

Section 3: Pro-activeness*

- 12. How do you go about identifying and evaluating new opportunities and activities for your enterprise?
- 13. How much are you considering the future in the decisions you are making for your enterprise today? This may include future problems, future needs, futures changes to make.
- 14. How far ahead are you thinking in terms of time? Days? Months? Years? Decades?
- 15. Are you monitoring your competition? If so, how?
- 16. How do you use the information about your competition?
- 17. Are you actively seeking to be in a particular market position? If so, how is it working out for you?

Section 4: Persistence*

- 18. What kind of setbacks has your organization faced and how did you conquer them?
- 19. In the development phase of your enterprise, how long did it take you to start up the organization/ business? Starting from the decision to create the enterprise to the actual operation of the enterprise?
- 20. What single attribute was most important for the development of this enterprise?

Section 5: Other*

- 21. Is there anything else that you feel is important for me to understand about entrepreneurship in your enterprise?
- 22. Is there anything else that you feel is important for me to understand about social or commercial entrepreneurship in Cambodia?

^{*}Note: Do not mention section title to interviewee

Part 3: QUANTITATIVE LIKERT-TYPE SURVEY

All information coll	ected will be used only	for my research and	l will	l be	kept	cor	nfid	enti	al. T	. There will be no connection to you specifically or your
organization in the results or in future publication of the results.										
Informed Consent: 1	agree to participate in	the survey:Yes	S	N	O					
Please indicate the statement that is most accurate for your enterprise by circling a number below.										
Explanation of Mea	surement:									
-	1	2	3				4			5 6 7
	Strongly Agree					Ne	eutra	ıl		Strongly Agree
	with Statement A									with Statement B
1. In general, top decision makers of this enterprise have										
A strong preference	ce for low risk projects	(with normal and	1	2	3	4	5	6	7	A strong preference for high-risk projects (with chances of very high rates of return)
certain rates of ret	urn).									very high rates of return)
2. Lately, how many new lines of products or services has this enterprise tried?										
No new lines of pro	oducts or services.		1	2	3	4	5	6	7	7 Very many new lines of products or services.
Is rarely the first b	ousiness in the sector t	to introduce new	1	2	3	4	5	6	7	7 Is often the first business in the sector to introduce new
products/ services	, administrative techn	iques, operating								Is often the first business in the sector to introduce new products/ services, administrative techniques, operating
Is primarily focuse	ed on our own activitie	es and less on our	1	2	3	4	5	6	7	7 Usually seeks to achieve a position of leadership in the
Changes in produc	ets and services have be	een very minimal.	1	2	3	4	5	6	7	7 Changes in products and services have been dramatic.

6. Generally...

Decision makers at our enterprise prioritize economic efficiency when allocating time and labor to a given project.

1 2 3 4 5 6 7 Decision makers at our enterprise spend an extensive amount of time and personal dedication in efforts to make our ideas come to life, regardless of economic efficiency.

7. In general, top decision makers of this enterprise prefer...

A strong emphasis on the marketing of products and services that have proven to work for us.

1 2 3 4 5 6 7 A strong emphasis on research and development, technological leadership, and innovations.

8. When it comes to risks and difficulties...

Our enterprise has changed our original purpose and the corresponding course of action in response to risks and difficulties.

1 2 3 4 5 6 7 Our enterprise has maintained our original purpose and the corresponding course of action, despite risks and difficulties.

9. In general, top decision makers of this enterprise believe that...

Due to the nature of the environment, it is best to explore gradually through cautious and incremental behavior.

10. In general, our enterprise...

Focuses on what our clientele need now and how to meet these current needs.

1 2 3 4 5 6 7	Due to the nature of the								
environment, bold and	ranging action is necessary to achieve our objectives.	1	2	3	4	5	6	7	Thinks in depth about future demand and takes progressive action to meet these upcoming needs.
11. For the most part, new ideas, products, and services developed or thought about 3-12 months ago are									
Disregarded if they pres	sented little profit or success.	1	2	3	4	5	6	7	Still being pursued, even if they have presented difficulties or hindered profits along the way.
12. When it comes t	o decision-making situations	invo	olvi	ing	un	cer	rtai	nty	in our enterprise
We prefer the cautious	line of action even if some opportun	ity n	nay	be l	lost	in t	hat	way	y. 1 2 3 4 5 6 7

We are willing to take risks in order to seize and exploit opportunities.

APPENDIX B:

Data Collection Instruments

ON TECH INNOVATION SECTOR AND INCUBATORS

1. Survey questionnaires

Tech Innovation Sector Landscape Survey

Are you working on or mentoring a startup that employs innovative use of technology? If yes, we need your help. We are conduct a research on the tech innovation ecosystem landscape in Phnom Penh and would like to better understand your role and engagement with other actors. The survey will take five minutes.

Note: Your information will be used for the sole purposes of this research, and will not be shared with other audiences or used for any other purpose.

Name Gender

Age range

What do you do?

- I am/used to be a startup entrepreneur.
 - I have provided mentoring support to startups, but I am not/have never been a startup
 - 1. When did you start pursuing your startup? If you don't remember the exact date, please provide an estimate.
 - 2. What is/was your role with your startup?
 - 3. What is/was your startup? What services or products are/were you producing? Please provide a link to webpage or Facebook page if possible
 - 4. How did you come up with your startup idea? Did you participate in a business competition or training program? Please describe.
 - 5. In which way is/was your startup innovative?
 - 6. Are/were you a beneficiary of an entrepreneurial support program such as an incubator or accelerator?
 - 7. If yes, from which accelerator or incubator did you receive support?
 - 8. Are/were you seeking external funding (grant) or investment?
 - 9. Did your startup received any external funding (grant) or investment?
 - 10. If yes, from which funder did you receive the grant or investment?
 - 11. Does your startup have a patent?

Are you still pursuing your startup?

- Yes
- No

- 1. When did you decide to stop pursuing your startup? If you don't remember the exact date, please provide an estimate.
- 2. Why did you decide to stop pursuing your startup? Are you leaving your role or has your startup been dissolved? Please explain.

Have you provided mentoring support to other startup entrepreneurs?

- Yes
- No
- 1. Are you a Cambodian or expatriate mentor?
- 2. When did you become a mentor? If you don't remember the exact date, please provide an estimate.
- 3. Whatkind of mentoring support do you provide?
- 4. How many startup(s) have you provided mentoring support?
- 5. What startup(s) have you provided mentoring support? Please provide name(s).
- 6. Are you affiliated with an entrepreneurial support program such as an incubator, accelerator, or a business competition?
- 7. If yes, what entrepreneurial support program(s) are you affiliated with as a mentor?
- 8. Are you located in a co-working space?
- 9. If yes, in which co-working space are you located?
- 10. Are you a member of a network or professional association that supports technology, innovation or entrepreneurship?
- 11. If yes, of what network(s) or professional association(s) are you a member?
- 1. Where do you access information about technology, innovation and
 - entrepreneurship? (check all that apply)
- 2. What are the top three challenges faced by tech innovation startups?

Thank you!

We appreciate you took the time to help us understand your role and engagement with other actors in the tech innovation sector.

May we contact you for additional information? If yes, please provide your e-mail address.

2. Key informant interview coverpage

Tech Innovation Sector Landscaping Coversheet for

All Key Informant Interview Protocols

Date of interview:	Interviewee Name, Title:
Stakeholder group:	Time start:
	Time end:
Interviewer(s):	Location:

Introduction:

Good morning/afternoon and thank you for taking the time to speak with us today. As mentioned during our interview request, we are working with Development Innovations to conduct a research on the tech innovation ecosystem landscape in Phnom Penh. The research is intended to build a snapshot of the key actors and analyze how the ecosystem has evolved in the past five years.

Our team has had the opportunity to review some background information about you/your project/your organization. However, this desk research information can only tell us so much. We would like to speak with you today to hear about your experience, in your own words, in order to help us better understand your role in the ecosystem and your ideas on what can be done to further support the sustained growth of the ecosystem..

Confidentiality protocol

- a. We will collect information on individuals' names, organizations and positions. A list of key informants will be made available as an annex to the final evaluation report, but those names and positions will not be associated to any particular findings or statements in the report.
- b. We may include quotes from respondents in the narrative report, but will not link individual names, organizations or personally identifiable information to those quotes, unless express written consent is granted by the respondent. Should the team desire to use a particular quote, photograph or identifiable information in the report, we will contact the

respondent (s) for permission to do so.

- c. All data gathered will be used for the sole purposes of this research, and will not be shared with other audiences or used for any other purpose.
- d. Your participation in this interview is voluntary and if you do not feel comfortable answering a particular question please let us know and we will simply go onto the next question.

Once again, thank you for taking the time to speak with us today. Do you have any questions for us before we get started?

Inform interviewee we may follow-up with brief a email survey.

3. Key informant interview questionnaires templates

Tech Innovation Sector Landscaping (Est. Time ~60 min)

Talent and training programs Entrepreneurship support program, Spaces and hubs

Investors, Competitions

1. Background information

- a. When was the program founded? What needs / problems was the program addressing?
- b. How do you define your role in the sector?
- c. What kind of services or support do you provide?
- d. What stage of innovation / startup do you support?
 - i. Ideation/research
 - ii. Pilot project / product
 - iii. Started operations, pre-revenue
 - iv. Revenue-earning, not yet profitable
- e. Howare you funded? If external funding, who are the donors/funders/sponsors?
 - i. Equity investment
 - ii. Internal revenue
 - iii. Grant / external funding
 - iv. Fee charged for services
 - v. Corporate sponsorship
 - vi. Cambodia government funding
- f. What is the size of your constituency?
- g. Who are your constituency? Could you profile them?

2. Relationship and connections

a. How are you collaborating with other actors (hubs, innovation lab, talent and training programs, competitions)?

b. Are you part of a network, association, or community?

3. Gaps and opportunities

Based on your role an entrepreneurship support program in the tech innovation sector and interactions with other stakeholders, please describe your assessment of the sector to date.

- a. What are popular modalities/programs?
- b. In your opinion, what are these programs addressing?
- c. What aren't these programs addressing?
- d. What can be done to booster the sector?

4. Tech innovation sector growth

Please describe your assessment of how the sector has evolved.

- a. What did you observe when you started?
- b. What have changed? What are some of the major attitude and behavior change toward tech innovation, ICT uptake, entrepreneurial mindset you have observed to date?
- c. What factors contributed to these?

5. Impacts

- a. How do you track your impact as an entrepreneurial support program? If you have implemented some form of monitoring and evaluation, could you share your data with us?
- i. How many startup groups have you supported?
- ii. How many successfully launched their start-up? How many of these uses or produce technology innovation?
- iii. How many have received post-incubation investments?
- iv. What are some of the common reasons for discontinuing to work on the startup?
- a. What has been some of the learnings you program have had in the past years?

6. Perception of DI's contribution to the sector

Could you reflect on a collaboration or relationship that you or another actor had with DI.

- a. In this relationship, how did DI help / hurt the sector?
- b. What can be done to improve the collaboration or boost impact?

Tech Innovation Sector Landscaping (Est. Time ~60 min)

Tech-innovator / Entrepreneurs Thought Leaders / Mentors

1. Background information

- a. When did you get involved with the tech innovation sector?
- b. How do you define your role?

2. Relationships and connections

- c. Are you amember of:
- i. Entrepreneurial support program (accelerators / incubators / competitions)
- ii. Talentandtrainingprogram(Technovations)
- iii. Network
- iv. Professional association
- d. What startups did you mentor?
- e. What are some the major challenges with mentoring?

3. Gaps and opportunities

Based on your role as a mentor/thought leader in the tech innovation sector and interactions with other stakeholders, please describe your assessment of the sector to date.

- a. What are popular modalities/programs?
- b. In your opinion, what are these programs addressing?
- c. What aren't these programs addressing?
- d. What can be done to booster the sector?

4. Sector growth

Please describe your assessment of how the sector has evolved.

- a. What did you observe when you started (as a mentor)?
- b. What have changed? What are some of the major attitude and behavior change toward tech innovation, ICT uptake, entrepreneurial spirit you have observed to date?

c. What factors contributed to these?

5. Perception of DI's contribution to the sector

Based on your role as a mentor/thought leader, could you reflect on a collaboration or relationship that *you* or *another actor* had with DI.

- a. In this relationship, how did DI help / hurt the sector?
- b. What can be done to improve the collaboration or boost impact?
- c. Do you have any suggestions for DI?

APPENDIX C:

List of Interviewees

FOR INNOVATORS AND INCUBATORS

- 1. ArrowDot
- 2. STEM Cambodia
- 3. ImpactHub
- 4. ArcHub
- 5. TRYBE
- 6. Raintree
- 7. Startup Weekend
- 8. NUM Social Innovation Lab & BMC Accelerator
- 9. SmallWorld Venture
- 10. DoyDoy
- 11. Design Kompany
- 12. iDE Cambodia
- 13. Smart Axiata Digital Innovation Fund
- 14. Emerald Hub
- 15. SHE Investments
- 16. Geeks in Cambodia