

Dissertation

**Strategies for Developing Entrepreneurial Capacity and Capability in Coffee
Industry Sect in Timor-Leste**

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3 October 2021

Submitted in partial fulfillment of the requirement for the degree of

Doctor of Business Administration

University of Wales Trinity Saint David

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Acknowledgment

I wish to express my gratitude to God and the universe for giving me an opportunity to complete this research Dissertation with the title "Strategies for Developing Entrepreneurial Capacity and Capability in Coffee Industry Sect in Timor-Leste"

Sincere thanks go to Dr. Mizanur Rahman, for serving as director of study, I'm thankful for his assistance, valuable advice during the process of this manuscript, and as my lead supervisor in a professional capacity.

Sincere thanks go to my family, Dr. Hermeindito and Kristina Andita Pradani, S.E, Joanico Goncalves, Joaquim Amaral, Lucio Gomez, Chicky Goncalves, Martinho Pereira, Nani Rolanda Paula Cruz e Costa for the valuable support and motivation during during the period of my research.

I am very grateful for the cooperation during the data collection process with the government of Timor-Leste, Ministry Commerce and Industry, Ministry of finance, Institute development of small business and entrepreneurship, department of entrepreneurship training center. Non Profit organization ETDA, Letefoho Coffee, Maubere Coffee. Coffee Industrialist Timor Global, East Timor Coffee Association, Ermera Chamber of Commerce. The University of UNTL, ETCI, all the Coffee entrepreneurs include coffee Shop and coffee supplier and coffee exporter.

I am very grateful to the support of Timor-Leste government through Fundu de Desenvolvimento Capital Humano (FDCH), Mr. Ismemnio Martins da Silva and Ms. Leila Carceres dos Santos.

I gratefully thank to the tolerance and sacrifice of Heni Cicaluh Sefti for her patient and loving support, and special thank to my late parents Prof. Dr Lucas da Costa, SE., Msi., and Fatima Filomena da Rosa Lay for their dedication contribution in my life.

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Abstract

The main objective of this research is to increase the capacity and capability of entrepreneurship through the development of an entrepreneurial education model based on the entrepreneurial ecosystem in the coffee industry sector in Timor-Leste. The coffee industry has a significant contribution to Timor-Leste's economic growth. Therefore, the growth and the coffee industry must be maintained in the long term. As an effort to maintain the continuity of the coffee industry, we conduct research on every important role in the growth of the coffee industry, namely the Government, Coffee Shop Owners, Academics, the Coffee Industry, and NGOs which are then carried out in collaboration with the Pentahelix model to lead capacity building and entrepreneurial capabilities, especially in the coffee industry. This study involved 23 informants spread from the Pentahelix, namely: entrepreneurs, government, universities, industry, and the community. The five parties will be interviewed separately for their opinions and views on the pattern of partnership and collaboration within Pentahelix.

This study found that concerns relevant instruments including internal factors, ability factors, factors (PESTLE analysis), prospects, and obstacles in increasing entrepreneurial capacity and capability. And it was found that by increasing efficiency in partnership and collaboration of all parties in Pentahelix, it can promote and awaken the entrepreneurial spirit of the Timorese people and effectively increase the productivity of the coffee business.

CHAPTER 1

INTRODUCTION

1.1 Background

The coffee industry sector is one of the important pillars of non-oil and gas commodities in Timor-Leste. The development of the coffee industry sector is more prominent than other crop sectors such as coconut, cashew, corn, and cocoa. The coffee plant is a commercial crop of excellence and one of the best in the world. Timor Hybrid Coffee has many varieties grown in various regions of the world including Brazil, Colombia, China, Vietnam, and also India. The support of the Portuguese government in maintaining and improving the quality of Timor Hybrid Coffee is very much needed. Quality control of this Timor Hybrid coffee depends on two Portuguese institutions, namely The Centro Internacional da Ferrugem do Cafeeiro (CIFC) and the Portugal Quinta Portugal. Based on UNDP data, Timor-Leste is ranked 152 out of 162 countries in the world with a GDP per capita of USD 2,356. East Timor's economic sector is still dependent on Australia and Indonesia, especially imported products. Timor-Leste's economic growth reached 4.1% and 4.9% in 2019 and 2020. Timor-Leste's economic growth still relies on the oil and gas sector reaching 90%.

Table 1.1. Export Coffee Timor-Leste 2017-2019

	2017			2018			2019		
	Quant. %	Value %	Price Kg	Quant. %	Value %	Price Kg	Quant. %	Value %	Price Kg
Indonésia	20.2%	7.4%	0.99	35.6%	10.5%	0.74	50.1%	29.9%	2.61
Canada							13.4%	22.7%	4.40
USA	21.6%	33.4%	4.17	19.1%	32.8%	4.27	12.1%	21.3%	4.59
Germany	22.8%	22.5%	2.67	12.1%	11.4%	2.35	5.2%	4.6%	2.29
Total	100%	100%	2.70	100%	100%	2.49	100%	100%	2.61

Sumber: DJE, statistik perdagangan internasional

In Timor-Leste, there are also universities and academics who have attention and depth in the field of coffee research and cultivation. In terms of the manufacturing sub-sector and the downstream coffee industry, entrepreneurs in Timor-Leste have not shown a well-integrated handling pattern. There is no structured and planned entrepreneurship education and training (EET) program handling in developing potential entrepreneurs, both in general and specifically in the coffee industry. The Government of Timor-Leste actually has an institution that handles EET, but graduates from this institution have not been able to meet the needs of increasing entrepreneurial capacity and capability both in the industry in general, and the coffee industry, especially in the downstream sector.

On the other hand, the structural development of coffee in Timor-Leste has not shown a nationally planned pattern. There is an imbalance in the supply chain process from the upstream industry to the downstream industry. In the upstream sector, international organizations from Portugal have made excellent developments in quality control of plant varieties and the cultivation of Timor Hybrid coffee.

The development of an effective EET in increasing entrepreneurial capacity and capability requires the role of various parties. This really depends on the entrepreneurship ecosystem. The question that often arises is what form of entrepreneurship ecosystem can encourage the growth of potential entrepreneurs, and how can their existence increase entrepreneurial capacity and capability nationally? Or at least being able to meet the industry's need for reliable human resources in maintaining and maintaining the survival of business actors in the coffee industry in Timor-Leste?

The key stakeholders in the coffee industry, as in general in the development of the entrepreneurship ecosystem, often involve important roles from the government, universities, communities, industry, and entrepreneurs as the main actors. Interaction between the five parties in an integrated and structured manner is very important in ensuring the development and survival of the industry. This context refers to the concept of the Pentahelix. A number of studies show the important role of stakeholders at Pentahelix who have a significant contribution in supporting EET programs that aim to increase entrepreneurial capacity and capability. The

question that arises related to this issue is Can Pentahelix trigger innovation and accelerate the development of the entrepreneur's business scale? Research gap: The references of both theories and empirical evidence of the Pentahelix were not sufficient to solve those problems. It needs further investigation to examine and identify the main parties of Pentahelix who are responsible and capable of solving the problems in the coffee industry sector in Timor-Leste.

A number of experts argue that apart from EET, partnership and collaboration is also effective and fast way to increase entrepreneurial capacity and capability. Partnership and collaboration will naturally increase the scale of business, especially if synergies are obtained from cooperation that can increase the effectiveness and acceleration of programs in increasing entrepreneurial capacity and capability. When integrated with the Pentahelix issue, questions arise that require further study. Do partnership and collaboration among Pentahelix parties provide synergy and more effectiveness to solve these problems? Need some references to both theories and empirical evidence. What type of partnership and collaboration among Penta helix parties is more efficient and effective to solve these problems? Need some references to both theories and empirical evidence. Research gap: The references of both theories and empirical evidence of partnership and collaboration were not sufficient to solve those problems. It needs further investigation to analyze and evaluate the type of partnership and collaboration that fit to solve the problems in the coffee industry sector in Timor-Leste.

1.2. Problem Statement

Entrepreneurship has an important role as a formidable engine of economic growth and also leads toward better social health and wealth. Therefore, government and other main stakeholders --- academic, industry, community, and culture --- will increasingly need to develop an integrative system to expand the capacity and capability of entrepreneurs. A number of organizations have released information about the entrepreneurship ecosystem such as Global Entrepreneurship Monitor (GEM) since 1999, Global Entrepreneurship Index since 2009, and Global Startup Ecosystem Report (GSER) since 2017. Those agencies provide useful information about the entrepreneurship ecosystem that can be referenced for investors to evaluate and assess the value of potential startups. In the context of the Penta Helix system, five main

parties involved in the entrepreneurship ecosystems, those are entrepreneur, government, academic, industry, and community and culture.

The term “Pentahelix” refers to five central parties which are interconnected as an engine to run the entrepreneurship ecosystem. Previous studies investigate the role of Pentahelix in relationship economic development (Tonkovic et al., 2015), to improve the sustainable competitiveness of the wine industry (Cabrera-Flores, Lopez, & Peris-Ortiz, 2020) to develop centers of flagship industry (Muhyi, Chan, Sukoco, & Herawaty, 2017) to support startup in the early stage (Sudiana, Sule, Soemaryani, & Yunizar, 2020) and to stimulate and advance innovation (Halibas, Sibayan, & Maata, 2017).

There has been quite a lot of empirical evidence on the contribution of the Penta helix model in the development of the business and economic ecosystems, but there are several gap issues that still require further study. First, the elements in the Pentahelix vary among empirical studies. Second, the model and working mechanism of the Pentahelix are subject to different characteristics of the ecosystem’s object. Third, the interconnection patterns among Penta helix parties differ depending on the ecosystem’s object. Hence, it needs further studies to examine the three research gaps as the main problems, particularly in relation to further study regarding the model and mechanism of the Penta helix in advancing entrepreneurship in Timor-Leste, especially in the coffee commodity industry sector. This study is expected to find a Pentahelix model that is suitable for the entrepreneurship ecosystem in Timor-Leste in increasing entrepreneurial capacity and capabilities.

1.3. Research Questions

- a. Who are the main participants that have an important role to improve growth of the coffee commodity industry sector in Timor-Leste?
- b. What type of partnership and collaboration among participants is suitable for the entrepreneurship ecosystem to lead increasing entrepreneurial capacity and capabilities, especially in the coffee industry sector in Timor-Leste?
- c. What kind of Pentahelix model can accelerate the entrepreneurial ecosystem in increasing their capacities and capabilities?

- d. Does the entrepreneurial ecosystem contribute to developing entrepreneurship education and training models in an effort to increase entrepreneurial capacity and capability, and to maintain the growth and sustainability of the coffee industry in the long term?

1.4. Research Objectives

- a. To identify main participants and their roles in improving growth of the coffee commodity industry sector in Timor-Leste.
- b. To explore and search types of partnership and collaboration among participants that are suitable for the entrepreneurship ecosystem to lead increasing entrepreneurial capacity and capabilities, especially in the coffee industry sector in Timor-Leste.
- c. To develop Pentahelix models that can accelerate entrepreneurial innovation in increasing their capacities and capabilities.
- d. To evaluate the role of the entrepreneurial ecosystem in developing a model of entrepreneurship education and training programs that effectively increase entrepreneurial capacity and capability and can maintain business scale growth and coffee industry sustainability in the long term.

1.5. Contributions of the Study

Coffee manufacturing and intake international have expanded over the past 50 years, developing new possibilities for small-scale and area of interest manufacturers. At the equal time, the motion closer to the social and environmental sustainability of espresso manufacturing, and redefining it as “forte espresso” has won momentum. Coffee manufacturers in Timor-Leste, in addition to different countries, can advantage of those traits if they are able to meet the necessities of an increasing number of state-of-the-art markets and consumers. Coffee is one of the mainstays of manufacturing owned via way of means of Timor-Leste. Timor-Leste (additionally called East

Timor) is at the top 1/2 of the island country Timor. Timor lies beneath neath Indonesia and west of Papua New Guinea. Coffee first got here to Timor-Leste whilst the Portuguese occupied it in the 1860s and fast have become chargeable for 1/2 of a's exports till Indonesia received manage of East Timor in the 1970s. Timor-Leste's espresso manufacturing money owed for beneath neath 0.2% of the worldwide espresso trade, however, it stays in a completely unique and extraordinarily opportunistic function given its status as the biggest unmarried supply natural espresso manufacturer globally. Considered certainly considered one among its number one industries, the espresso enterprise of Timor-Leste (East Timor) is its leader export commodity. Coffee is Timor-Leste's maximum ancient and critical crop and has been the country's biggest non-oil export for beyond a hundred and fifty years. It is grown via way of means of round one-0.33 of families in Timor-Leste and 20% of families depend on the crop for coins income. Many one-of-a-kind agencies have from the early 16th century to the eighteenth century, competed for political management of Timor-Leste, which include indigenous agencies, the Dutch and the Portuguese. Because espresso at the time turned into now no longer a government-managed export, it turned into privately produced with the aid of using landowners, and lots of deserted farms throughout this occupation. Coupled with an attempted takeover with the aid of using Japan throughout this time, East Timor did now no longer really advantage of complete independence till 2002.

The human beings of Timor-Leste have a sturdy cultural identification with tight-knit groups throughout a beautiful, rugged landscape. In the face of tough surroundings with aging, poorly nourished bushes, and restricted infrastructure, they're generating wonderful espresso. Some espresso plant types normally located in Timor-Leste are Typica, together with numerous particular types that originated in the country—which now develop in espresso-generating

international locations across the world. The biggest unmarried supply to several rural households stays espresso, and it additionally represents one of the most powerful aspects of employment in the country. Moreover, international fluctuations in espresso charges have created issues for espresso manufacturers in Timor-Leste. The high-satisfactory of the espresso is primarily based totally on flavor and taste, in addition to the size, shape, color, hardness of the espresso beans, and the presence of defects (Feria-Morales, 2002). Therefore, it is crucial to apprehend that espresso processing has an impact now no longer most effective at the high-satisfactory of the espresso beans however additionally at the long time competitiveness of that espresso merchandise in the worldwide market. The postharvest processing technique is crucial for boosting the high-satisfactory aroma and flavor of espresso. At the number one espresso processing level, generation is the most crucial issue for preserving high satisfaction. The key element in growing the pleasantness of espresso cherries lies in the manufacturing level. Interventions consequently may be centered on progressed funding on this level through seeds and enter materials. (Muschler, 2001).

Timorese espresso manufacturers had little to no possibility to capitalize upon better espresso charges and as such are defined as restricted funding espresso manufacturers. The Timor Hybrid (Hibrido de Timor) started developing at the island in the Twenties as a hybrid of Arabica and robusta espresso; it's miles extraordinarily ailment-resistant and excessive-yielding.

Timor Hybrid turned into born of the spontaneous mating of a Robusta and Arabica plant and is a noticeably ailment resistant and excessive yielding range that has now been planted across the world. Timor Hybrid additionally paperwork the spine of the famous Catimor and Sarchimor types. To maximum who are living in Timor-Leste, espresso manufacturing stays a supply of supplementary profits, with estimates from 2003 noting around 200,000 human beings. Coffee

manufacturing in Timor-Leste is taken into consideration to be a procedure wherein there may be a restricted attempt to generally tend to espresso timber, wherein an emphasis is positioned on land clearing round timber to make manure for destiny harvest. With espresso comprising 24% of Timor-Leste's economy, and as a whole lot as 90% for the once-a-year profits for about 25% of Timor-Leste's population, the arena performs a main position in funding, employment, salary boom, and common financial prosperity. However, this profit is noticeably variable, relying on the worldwide espresso market, however, because of the easy manufacturing techniques required to supply espresso farmers are not going to desert the arena. Potency espresso farming land improvement in Timor-Leste can not be applied optimally, in order that the productiveness of espresso Timor-Leste remains low. The quantity of espresso farmers is decreasing. Timor-Leste Coffee Farming Sustainability additionally is threatened. This can have a poor effect on Timor-Leste's assets of earnings which will reduce, so it's far crucial to hold sustainable Timor-Leste farming. Low productiveness and excellent of espresso manufacturing stimulated via way of means of a maximum of the espresso plantations in Timor-Leste are people's espresso plantations which might be poorly maintained and lack of information approximately excellent espresso cultivation and helping technology. Many espresso farmers domesticate now no longer according to with excellent agriculture practice (GAP) guide. It is was hoping that the sustainability of advanced coffee in Timor-Leste may be fulfilled via way of means of following measurement of sustainability in the idea of sustainable agriculture with guide from all events in Pentahelix that allows you to cause manufacturing sports Agriculture can become the global realm if farming sports take note of the environment. The sustainability of farming may be found out if farmers as commercial enterprise actors receive benefits. Sustainability may be finished if agricultural businesses are supported via way of means of the usage of suitable generation.

The coffee delivery chain is one of the oldest commodity chains in the global constructed over the centuries which sustains colonialism to trendy capitalism. Although it has now no longer taken a substantial component in the espresso distribution, the call for distinctiveness espresso and unmarried foundation in the beyond ten years have endured to growth with the upward push of neighborhood espresso stores in large cities in Timor-Leste. In addition, the call for global espresso fans who purchase at once to small vendors despite the fact that in nonetheless restricted amounts will become the brand new opportunity to espresso marketing. Due to the growing call for whilst high-satisfactory and to be had espresso beans for the duration of the 12 months are extraordinarily difficult to obtain, then the neighborhood stores are beginning to set up a community of imparting espresso beans at once from the farmer. New unbiased middlemen additionally seem to promote personal espresso beans to stores that handiest operate for the duration of harvest through constructing a semi-everlasting espresso processing facility in cooperation with a neighborhood farmer. At the identical time, the important and neighborhood governments additionally introduce an entrepreneurial application in addition to geographical indication certificates wherein the farmer is recommended to at once get admission to the marketplace in order now no longer to be mocked through the middlemen, along with agricultural processing application in order that the farmer profits delivered value. However, growing quantity of neighborhood espresso stores and client focus of ate up goods, and the emergence of greater aware client corporations of “espresso fans” or “connoisseur’s consumers”, sparks an intensive opposition amongst marketplace actors in neighborhood stage that have an effect on such dominance.

Unfortunately, there are numerous cultural, technical and social boundaries to enforcing variation measures, and farmers’ perceptions of weather alternate dangers and their adaptive

ability are critical for getting rid of a number of these barriers. Adaptation to weather alternately calls for farmers to use conventional strategies of agricultural manufacturing first to observe that the weather is converting and that this represents a hazard to their manufacturing (Maddison, 2007).

This study contributes to developing both theory and methodology. This study will develop a new conceptual research framework of the entrepreneurial ecosystem, which expands previous studies of the Pentahelix based on a three-stage level of analysis to increase entrepreneurial capacity and capability. The framework describes the work and mechanism of the entrepreneurship ecosystem in the Coffee industry sector in Timor-Leste. Regarding the research gaps, which are explained in the section of the Problem statement, the framework is useful to guide the study in searching and finding the best model to solve the problems through a systematic and scientific approach to search and find the best type of partnership and collaboration among Pentahelix parties that are fit to accelerate innovation in increasing entrepreneurial capacity and capability. In Timor-Leste droughts similarly compounded the trouble of low espresso prices. The results are complicated and surely have an effect on small-scale farmers.

The first stage focuses on **initiating and preparing**. Many misunderstandings and conflicts rise up due to the fact that the events which are concerned in a venture aren't clean in this matter. The concept for the venture is explored and elaborated. The purpose of this section is to have a look at the feasibility of the venture. In addition, selections are made regarding who's to perform the venture, which party (or events) may be concerned, and whether or not the venture has a good enough base of aid amongst folks who are concerned. The predominant cause of the initiation and strategy planning stage is to decide the paintings that desire to be completed to supply the

venture merchandise and set up strong foundations of the venture earlier than committing all of the assets for the venture. Start from initiating and preparing this study through comparative advantage approach to search and find opportunities of the particular industry, which have potential resources and value to be developed in the future. At this step, this study will explore the advantages of the coffee commodity industry sector that will be compared to other non-oil and gas industries in Timor-Leste.

The second stage **explores and identifies** stakeholder parties who hold an important role in the interconnection network among parties in the industry. At this stage, this study will identify five main parties called Pentahelix parties who have an important role to accelerate innovation in increasing entrepreneurial capacity and capability. In this stage, the study also analyzes and evaluates types of partnership and collaboration among parties in the Coffee industry sector in Timor-Leste. It is extensively diagnosed that through taking part extra in markets smallholder farmers can grow their productivity stages and incomes, thereby enhancing the safety of their meals and experiencing much less poverty.

The third phase is **planning and organizing** to develop the Pentahelix model. Planning is a procedure that defines the desires of the organization, makes techniques used to attain the desires of the organization, and develops plans for organizational paintings and sports. According to Terry, making plans is an attempt to choose and relate records and make and use assumptions about destiny with the aid of describing and formulating sports that are taken into consideration to attain the favored results. The definition of making plans is recommended with the aid of using (Suandy, 2003) as follows: In general, making plans is the procedure of figuring out organizational (company) desires after which presenting (articulate) genuinely the techniques (programs), tactics (challenge implementation procedures) and operations (actions) had to attain

the company's standard desires. The definition of making plans explains that making plans is a procedure to attain standard desires. Manpower-making plans describe the conventional method in forecasting whether or not there's a mismatch among hard work delivery and demand, in addition to making plans with the maximum suitable coverage adjustments. The integration of components of human aid-making plans into enterprise improvement ought to make certain that the want for human aid-making plans is visible as a line responsibility.

With the effective partnership and collaboration program from all Pentahelix parties, coffee production is expected to increase, not only in capacity but also in quality. This happens by building effective connections on all sides in Timor Leste which leads to Timor Leste can develop a model of Entrepreneurship Education and Training (EET). The anticipation of the research result in this stage is to figure out the Ecosystem of (EEET) that fits to improve entrepreneurial capacity and capability. The entrepreneurial ecosystem has an important role to facilitate entrepreneurs (participants), who join the EET program to launch and run their business in the long run. The EEET model requires the involvement and active role of Pentahelix in nurturing young entrepreneurs to start businesses and develop businesses in the long term. In other words, the EEET Model is a model of entrepreneurship coaching, education, and training that emphasizes the ability of trainees to maintain their business continuity in the future. The educational process does not only end when the training session is over but participants are still accompanied and maintained so that they are in an entrepreneurial ecosystem that is conducive to maintaining business sustainability and its development in the future.

Entrepreneurship schooling equips college students with the extra knowledge, attributes, and abilities required to use those abilities in the context of putting in place a brand new challenge or business. Entrepreneurship schooling seeks to offer college students the knowledge, abilities, and

motivation to inspire entrepreneurial fulfillment in a whole lot of settings. The loss of a feasible opportunity answer provides in addition credence to this rhetoric, as does the now fashionable and giant retrospective justification of entrepreneurial power as the premise for a successful industrial, technological and digital “revolutions”.

The whole Penta helix system that has been proclaimed has been determined for each party as follows :

Coffee Shop Owner, this Pentahelix model is in addition to aiming to promote small to medium-sized businesses in the coffee shop sector, Pentahelix also really needs supportive support from the coffee shop owner, by providing suggestions and providing their hope for Timor-Leste to help all people in the coffee industry find the best way to promote Timor's coffee to the world and have a sense of solidarity in healthy coffee business competition in an effort to create EET in Timor Leste. With the development of EET, coffee shop owners have a sense of trust in the government, NGOs, communities, and the coffee industry which makes coffee shop owners willing to join in increasing the capacity and capability of coffee in Timor Leste.

Government, In Timor Leste, there is government issues due to the change of president every 5 years and the situation of political turmoil which is considered by the community to have not subsided, as well as policy changes every year (revealed in interviews with the government and the coffee shop owner), so that the relationship between the government and the people are slightly apart. With the implementation of Pentahelix, the government will easily collaborate with business actors, this is due to the increasing level of public trust in the government and the community becomes more willing to follow government programs and from the government side, they can control the programs they run more efficiently. easily with the help of community openness, in addition to increasing the capacity and capability of the coffee business, the

government also benefits from assistance from Academics in providing training to understand better coffee management, starting from the beginning of planting to storage and processing. By concerning the authorities specially to beat back the placement of delivery and call for in the marketplace through spending and funding policies. In addition, to govern social and environmental impacts, the authorities should additionally begin suppressing merchandise which are socially and environmentally dangerous with tax policies. The authorities should additionally play a position in supplying public items that the non-public area isn't involved in, so of direction it calls for assets of revenue. For Timor-Leste, redirecting espresso exports to new areas of interest markets can convert the herbal hazards of manufacturing on small and faraway islands into promoting factors for customers in search of precise merchandise and experiences. However, getting access to those markets will commonly require adjustments in production, processing, and advertising to satisfy the necessities of a specific marketplace area of interest. Quality is unexpectedly turning into the defining aspect for getting admission to areas of interest markets in the espresso enterprise. In Timor-Leste's case, the opposition among exporters pursuing one of a kind enterprise fashions is probable to sell performance and power innovation. However, opposition on the export and intermediate degrees of the delivery chain also can exacerbate collective motion issues in the enterprise and undermine coordination throughout the delivery chain.

Non-Government Organisation (NGO), Coffee cooperatives in the area are multi-purpose.

Other than advertising and marketing coffee, in addition, they technique coffee and are concerned with the sale of different crops An NGO is a non-income corporation shaped with the orientation of the hobbies of the network and the surroundings. This corporation works independently and independently with no authority role. Not-for-income corporations had been

based to cope with this. Later, this corporation will offer path and supervision in order that discriminatory conditions do now no longer recur. As is known, the best of the network's herbal surroundings maintains to say no from time to time. If this is maintained, human beings' lives might be threatened. To triumph over this, a collection of human beings who've environmental recognition will typically create an NGO. Later, the sport achieved recognition on environmental safety and nature conservation. NGOs also can offer a way for the personal quarter to arrange the availability of enterprise-unique public goods, to solve the collective motion issues that preclude improvement in their enterprise, and to cooperate with the authorities and different stakeholders.

Academic, Higher training has an essential contribution to the financial boom and business improvement in Timor-Leste. The function of enterprise in the curriculum wishes to be extensive and open. Higher training in designing curriculum, have to cooperate with enterprise, due to the fact he turns into a person later. Academicians recommend farmers to often rejuvenate current espresso plants, however, many farmers don't rejuvenate their plants, due to the fact farmers do now no longer dare to lose their resources their most important profits and shortage of generation that enables plant rejuvenation, now no longer handiest this, academicians additionally said that maximum younger farmers have little or no information of espresso plant rejuvenation. It's exact that farmers are cautioned to do rejuvenation of the Timor-Leste espresso plant progressively, or via way of means of making use of grafting generation (pinnacle grafting or facet grafting) so that the manufacturing of effects is acquired faster, in addition to combining technological advances and information as a way to be rejuvenation and skilled via way of means of academicians with a guide from the government. Replanting senile timber or rejuvenating the coffee plants and enforcing appropriate agricultural practices can triple the yield in line with a unit location for an ordinary farming household. This calls for outside aid with the intention to

offer smallholders markets for land, get the right of entry to finance, and farmer aid services. A variety of improvement companions have stuffed this hole via means of imparting offers to applications that assist farmers to grow to manufacture. Timor-Leste has the possibility to grow general espresso manufacturing through farm rehabilitation applications, and to expand a recognition in global markets as a supply of precise and high–first-class coffees.

Coffee Industry, Since the establishment of the coffee industry, this party often occurs with various existing government policies, this is due to the lack of communication and lack of cooperation between the government and the coffee industry, on the other hand, coffee shop owners also have difficulty getting supplies of materials. good quality at an affordable price, this causes the quality of Timor's coffee beans to be poor and their distribution hindered. Every participant in the espresso business now is no longer worried about the amount but more focused on maintaining and increasing the fine, because the subtle charm will greatly affect the amount. Timor-Leste has unique fame in today's espresso-making record, as it is the birthplace of the herbal hybrid Robusta and Arabica. However, it experienced a major decline in manufacturing and a lack of farming capability due to the monopoly trade preparations that began in 1975. As a result, there were low costs, minimum investment, and vulnerable incentives for first-class control. By the end of the monopoly in 1993, there had been an immediate growth in the fees paid to espresso growers and marked the start of techniques to rebuild the industry. Coffee exporters have used 3 extensive techniques to earn premium fees: certification, first-class upgrades, and branding. The loss of interest given to espresso production in 1975-1993 meant that manufacturing had become natural and certification could be done very easily. However, along with the expansion of licensed natural espresso production around the world. Successful exchange affiliates must empower farmers and environmental agents to improve the quality of

their espresso and promote an increasing percentage of their wares in the expertise market. Over time, these changes could help in building global awareness of Timorese espresso, and broaden the country's recognition as a viable and highly valued coffee supplier. This study has made a real contribution that has almost reached the entire coffee industry in Timor-Leste, by providing training and forming a new collaboration network that is much more structured and more organized using the Pentahelix model, so as to create a real synergy between Coffee shop owners, Government, NGOs, Academics, and Coffee Industry to elevate Timor-Leste coffee to a globalized world, through this study, the government of Timor-Leste has begun to design standardization for the quality of coffee beans so that it can reach the world market, and by cooperating with academics, education on how to process coffee starting from how to take good care of coffee plants can be given and introduced to the younger generation. Quality management in coffee processing performs a pivotal function in enhancing the taste of inexperienced coffee beans, any funding to enhance coffee manufacturing will make a contribution to higher nice espresso cherries and therefore inexperienced espresso beans. A boom in the degree of clients happy with the niceness of the inexperienced espresso beans will cause a better profit. Consequently, the niceness of espresso cherries will strengthen with the aid of growing funding for espresso manufacturing. Culture is an essential detail in growing individuals' identification Customers' values are associated with globalization and localization, inclusive of international connection, cultural identification, and ethnocentrism. The idea of customer ethnocentrism applies values associated with greater assistance for nearby merchandise and the intake of nearby brands.

This is because the synergy that is formed does not only focus on helping to improve the quality of coffee beans, but also the process of growing the coffee plant itself, recognizing the area and soil, and measuring rainfall and weather, and humidity around the coffee growing area, up to the stage of storage of coffee beans and how to store coffee beans properly, this has become easier with the creation of the Pentahelix synergy which has been started by the government, so that people feel the impact and begin to recognize the difference between high quality coffee beans and those that are not quality, so that people as consumers also feel a positive impact and experience an increase in coffee consumption, in addition to the fresh taste obtained, with good processing and storage, people can enjoy the taste of Timor-Leste coffee which is much more delicious.

This change is expected to continue to grow infinitely, given the unstable condition of the government in Timor-Leste as indicated by the results of the existing survey, where almost all respondents stated that political conditions in Timor-Leste could be a threat to the production and quality improvement of coffee beans, then this research is expected to be a reference or reference for making decisions for the government in the future, due to the government can extrude the distribution of people's earnings both at once or circuitously. Whether it is information in the context of the government's function as a device to allocate monetary sources to be efficient, distribution of earnings to be equitable and fair, and monetary stability. Economic improvement in many nations commonly happens because of authorities' intervention, both at once or circuitously. Government intervention is wanted in the financial system to lessen marketplace screw-ups together with monopoly rates conduct and the bad effect of personal enterprise

activities. Market failure is a time period to explain marketplace screw-ups in attaining the most appropriate allocation or distribution of sources. In addition, the essential function of the authorities each at once and circuitously in monetary existence is to keep away from the emergence of externalities, in particular aspect outcomes at the herbal and social environment. Pentahelix synergy also needs support from all parties (Coffee shop owner, Government, NGO, Academic and Coffee Industry), so that slowly the formation of this synergy will become one aspect of sustainable development. Coffee shop owners and the coffee industry are also expected to be able to believe in the steps and policies taken by the government, including various functional policies or impromptu policies held by the government.

1.6. Significant of the Research

Anticipated results of this research are beneficial to stakeholders, especially for Pentahelix parties, and commonly for civil society. The main objective of this study is to search and find the best model, which is able to increase entrepreneurial capacity and capability in the coffee industry sector in Timor-Leste. Coffee is one of the major industries, which has a significant contribution to economic growth in Timor-Leste. This sector is still attractive to be scaled up by investors in the future due to many advantages and opportunities to expand the market both in national and international areas. Hence the practical significance of this study especially for the Pentahelix parties can be described as follow:

- a. Entrepreneurs are the ones who enjoy the results expected in this study. This study will help entrepreneurs to search and find the best model of partnership and collaboration among parties in the entrepreneurial ecosystem, which will accelerate the innovation process of increasing business scale in the coffee industry sector in Timor-Leste. The

innovation process is important to maintain their competitive advantages which will lead to their growth and sustainability in the long run.

- b. The Timor-Leste Government has authority and responsibility to facilitate stakeholders in all industry sectors who want to expand their business scale, including in the coffee industry sector. The government spends more attention on the coffee industry due to their significant contribution in economic growth and income distribution in Timor-Leste. In other words, the government expects that the anticipated results of this research will be useful for them to formulate policies and programs in an effort to develop an integrated entrepreneurial ecosystem in the coffee industry in Timor-Leste. The results of the study will assist the government in building a model of entrepreneurship education and training (EET) that considers the entrepreneurial ecosystem and involves the role of the Pentahelix parties; The model that is integrated and comprehensively involves all stakeholders in the industry to achieve synergy in developing the relevant industrial sector, in this case the coffee industry sector in Timor-Leste.
- c. Academics at universities are expert partners for entrepreneurs and governments in encouraging innovation through research and development of products and services. The presence of academics in the entrepreneurial ecosystem can accelerate the capacity building and capability of entrepreneurs. On the other hand, the anticipated results of this research will provide insight and support for academics in selecting appropriate types of partnership and collaboration, especially in doing research and development of product and service innovation in the coffee industry sector in Timor-Leste.
- d. Business actors in the coffee industry sector widely vary from upstream to downstream. This research focuses on how to increase the capacity and capability of Timor-Leste

entrepreneurs in the national and international markets in the downstream industry. It will lead to increasing the demand for coffee in the downstream sector, this action in turn will have an impact on increasing the productivity of the upstream coffee industry. Thus, the results of this study are also very important for members of coffee entrepreneurs associations in all sectors from upstream to downstream.

- e. The community is represented by a Non-Governmental Organization (NGO). The existence of NGOs in Timor-Leste plays an important role in helping empower the people of Timor-Leste. As a young country, society and the state need support from many parties, including support from NGOs in developing and empowering resources in various sectors including the coffee industry. The unique culture in Timor-Leste requires assistance and the right understanding in taking a social approach in an effort to build the economy and national resilience. The results of this study provide valuable input for NGOs in building appropriate partnerships and collaboration between Pentahelix parties in the entrepreneurial ecosystem in the coffee industry sector in Timor-Leste.

With the right partnership and collaboration program in Pentahelix, slowly but sure, Timor Leste can develop EET which in the future will advance the economy of Timor Leste through increasing the capacity and capability of the coffee business. So it is necessary to deepen the Pentahelix research and its application in Timor Leste

CHAPTER 2

LITERATURE REVIEW

This chapter consists of three subsections. The first subsection reviews grand theories and empirical evidence about entrepreneurship, entrepreneurship ecosystem, comparative advantage, Pentahelix parties in the entrepreneurship ecosystem, and type of partnership and collaboration. Review of theory and empirical studies are important in providing a logical and systematic basis for thinking to build a conceptual research framework.

The second subsection reviews previous conceptual framework in developing entrepreneurship capacity and capability. The third subsection develops and proposes a conceptual research framework. The research conceptual framework is useful for transforming ideas into empirical models and can be used as a reference guide in determining appropriate research methods and analytical techniques.

2.1. Theoretical Frameworks

2.1.1. Entrepreneurship

Friedman (2011) defined entrepreneurship as the major element for the creation of a job and ensuring economic growth. It is essential to understand the condition under which entrepreneurship is performed. Entrepreneurship is an important process for both research, and action, because it increases the economic growth with innovation, and includes purposeful and organized research as per the changes in the environment. It also includes a systematic examination of the business opportunity that provides transformation with respect to society and the economy as well as suggested that entrepreneurship is an ongoing activity or process through

which future opportunities are assessed and applied in the production of goods and services to meet the demands of changing markets. It is defined as a continual process in place of the one-time event that includes making decisions regarding the exploitation of future opportunities. It is also based on creativity, which involves recognizing new ideas or knowledge to produce new products or services. Hence, it can be said that entrepreneurship activities include invention, application, assessment, exploitation of the new-found opportunities so that the creation of future goods and services is executed effectively (Shane and Venkataraman, 2000).

Another theory comes from (Gartner, 1988) that analysed the definition of entrepreneurship is elusive that mainly includes introducing new products or services or enhancing the quality of the existing merchandise. As a result, entrepreneurship activities are related to the introduction of new processes or methods that help in increasing production efficiency and productivity levels. It also involves identifying and catering to the new markets in the form of exports so that new dimensions, goals, and targets are achieved by the company. The entrepreneur also makes efforts to identify the new sources through which raw materials could be acquired for the product manufacturing process. They explore alternative materials that can be used to reduce the cost of production, which consequently increase the productivity, sales and company market value. It may be in the form of the creation of a new organisation or making significant improvements in the existing ones to increase its efficiency and meet the changing market demands.

Entrepreneurship involves the application of diversified skills; management thought process, futuristic intentions, and attitude so that the new products are produced to meet the standards and changing demands of the market. The entrepreneurs can work and expand their visions for the future in the communities that provide them with the facilities of mobile resources, capital from trustworthy social groups, acceptance from society to see changes. Hence, it can be said that

entrepreneurship is highly dependent upon community acceptance and the success or failure of the entrepreneur with their new merchandise. In sum, entrepreneurship and handling companies are closely intertwined. One of the demanding situations going ahead is competing in the international area wherein services and products are delivered collectively from numerous international locations or regions. This calls for that specialize in crew dynamics, cross-cultural troubles and political/felony requirements. The opportunities are boundless but it desires an character who's snug operating in a messy environment (McGowan, 2012) The Entrepreneurship itself needs a support and place to growth that called Entrepreneurial Ecosystem for all entrepreneur to growth and established their business

2.1.2. Entrepreneurial Ecosystem

It has defined entrepreneurial ecosystem is ‘*a set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organisations (e.g. firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (e.g. the business birth rate, numbers of high growth firms, levels of ‘blockbuster entrepreneurship’, number of serial entrepreneurs, degree of sell-out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment*

Entrepreneurial Ecosystem is an interconnected network of various parties in a region and is interdependent on one another, and indirectly supports the growth of new businesses both at the local and regional stages

In defining the relationship between the entrepreneur and entrepreneurship, it can be said that an entrepreneur is a self-employed individual who creates their private Enterprises through entrepreneurship. This definition can be elaborated from the early work of (Schumpeter, 1942) , which describes entrepreneurs as an innovator in driving economic development. As a result, it can be said that there is a direct relationship between entrepreneur and entrepreneurship because

it refers to a process that builds a new business and entrepreneur activity, which is established from such entries into a New Market . In contrast, (Yetisen et al. 2015) defined that entrepreneurship is the procedure, in which different organisational activities like designing, introducing new products or services and running the business are involved. The individuals who are running the business are termed as entrepreneurs that can identify new opportunities and translate the innovations or advancements into new products or services. The entrepreneurs also validate the commercial potential of the newly discovered merchandise and arrange the resources, skills, and funds to achieve maximum commercial viability. It is often described as the conduction of trading or commercial activities with a motive of earning more profits by taking huge risks . Hence, it can be said that entrepreneurship is an activity that includes recommending resources with opportunities, identifying information related to opportunities, and organising the human resources to develop the opportunity into profitable business options by taking risks. It involves making a business plan, recruiting right human resources as per the requirements, attaining capital access, making provision for effective guidance and leadership, risk aversion and being accountable for future success or failure.

2.1.3. Comparative Advantage

Comparative gain argues that unfastened alternate works even though one accomplice in a deal holds absolute gain in all regions of manufacturing – that is, one accomplice makes merchandise cheaper, higher and quicker than its buying and selling accomplice. Economists had been uncommonly uniform in advocating unfastened alternate guidelines for centuries, and comparative gain is the motive why. The concept shows that general financial welfare in all nations is advanced while nations' awareness on the ones industries in which they have got the

best knowledge and success, and the bottom possibility fees. In order to benefit a aggressive edge, agencies are looking for companions to assist fill in the gaps in which needed. Wider gaps in possibility fees permit for better ranges of cost manufacturing through organizing hard work extra efficiently. The more the range in humans and their skills, the more the possibility for useful alternate thru comparative gain.

2.1.4. Penta Helix in the Entrepreneurial Ecosystem

2.1.4.1. Penta Helix Model

According to Adams, Andersson, Andersson, & Lindmark (2009) the Pentahelix Model is an escalation of the existing model, namely the triple helix model, by adding several parties that are deemed necessary, so that the Pentahelix model has a wider scope than the triple helix model. Pentahelix Model is based on 5 main parties which synergize one another. The five parties should have a relationship between each other, each existing party will not be able to operate optimally if they were independent, so that an even synergy between the five parties is needed. The advantage of using the Pentahelix model is that it offers conceptual formulations to accelerate the growth of entrepreneurship in Timor-Leste by connecting all interested parties so that each party can support each other and have a significant impact both socially and economically on the existing community, especially for Timor-Leste citizens. In this study, the five parties are: entrepreneurs, government, academic, industrial, community and culture. Every part in the Penta Helix will be described in the following subsections.

2.1.4.2. Entrepreneurs

An entrepreneur is identified as a person who creates something new that can have a resemblance to already existing things. An entrepreneur is also known as the creator of the future

by implicating innovative strategies, based on a real and new concept (Schumpeter, 1934) .

Moreover, the concept of entrepreneurship is known as an engine for the growth and development of the organisation by identifying the opportunity and seizing them for economic gain (Ronen & Gluck, 2014) . Therefore, it can be stated that entrepreneurs are business leaders who look for innovative ideas and apply them to fostering economic development.

Additionally, it can be stated that entrepreneurs are the individuals who show their skills in their actions. They also show their individual traits and skills based on the existing social norms and policies of institutions in their locality (Ovaska, 2014) . At the broadest level, entrepreneurs are individuals who excel at the identification of profit opportunities and have capabilities to identify and draw upon the resources required to establish and grow a business (Israel, 1997) .

2.1.4.3. Government

The study of entrepreneurship has taken great strides and gained much importance over the last decade. There is an increased awareness of the value of entrepreneurial activity on economic growth. One of the critical questions posed is what the government can do to foster that activity.

The current focal point of entrepreneurial research is to try to determine how far the government should go in promoting entrepreneurship . The role of government as a midwife for new entrepreneurs questioned . There is an extensive lookup associated along with the perception of the constraints according to entrepreneurial success. As per (Klapper, et al., 2009) , dictation associated with an easement on starting a business may affect entrepreneurial activity. Similarly, according to the advice of (Levie and Autio 2008) , finance access is the almost extensively diagnosed element influencing the godsend concerning entrepreneurs.

A market function, also known as an essential element for not only entrepreneurship but also it is important for achieving sustainable economic performance. It mainly includes competition in

public service and stimulates entrepreneurship activity, which is beneficial for the competition in two ways that not only does, but it also provides opportunity. In the policies to ensure government support, it supposed that since the government is in the lead for the development of entrepreneurship, it must provide the much-required resources within its capability. Such resources must involve the provision of conducive of government to a small and new business that will greatly promote entrepreneurship . The policy of government in this background is any action plan which targets controlling and regulation to improve the conditions of new business concerning support, funding and implementation of policies by the administration and government. Thus, as per the statement of Mazzucato (2013) . The government's role in innovation in the highest-ranked innovative countries is more important than assumed. Reconstructing and unfolding a middle-income country innovation ecosystem has the same requirements as in other countries .

2.1.4.4. Academics

The academic role involved in the Pentahelix Model is in conducting research and development in developing further research on entrepreneurship, especially in the coffee industry sector, so when it comes to implementing policies, the government sector needs to involve academic roles to get optimal results, with through the academic sector, the policies to be applied can be further studied and developed. Recent reviews display that the variety of patents, licenses and spin-off era and technology groups created with the aid of using the ones in academia is step by step increasing. Some marketers have commenced groups at the same time as running closer to full-time professorship. Behind the scenes, many lecturers are already leading innovation efforts in a whole lot of industries. Recent reviews display that the variety of patents, licenses and spin-off

era and technology groups created with the aid of using the ones in academia is step by step increasing.

2.1.4.5. Business People in the Industry

Business People in the industry in the Pentahelix model used is the non-oil and gas industry which is one of the advantages of Timor-Leste, namely the coffee industry, that have started from coffee farmers that are located around Timor-Leste, which produces selected coffee beans and then passed on to middlemen coffee to be sold in the form of ready to use, such as instant coffee sachets and coffee powder. Entrepreneurship is not a single process but it is a process beneath neath taken via way of means of an entrepreneur to create incremental price and wealth via means of coming across from funding opportunities, organising enterprises, challenging dangers and economic uncertainty and there via means of contributing to financial growth.

Entrepreneurs have an essential position in all enterprise activity, particularly with helping in the start-up of an enterprise. Entrepreneurs also need to do: Show initiative - marketers can display initiative via being proactive and making plans ahead. Initiative also can be established via way of means of taking steps to begin the enterprise. Essentially, this means that while very innovative individuals such as Steve Jobs are recognised as marketers, folks that aren't very innovative, however despite the fact that commenced their very own businesses, such as a grocery shop owner, can also be considered as marketers. Hence, marketers are similarly categorised into two groups: first one is the imitative marketers and the second one is the innovative marketers; and possibility marketers and necessity marketers (Ng, 2012) .

2.1.4.6. Community and Culture

Community and Culture is something that cannot be separated from one another, the existing community will form a habit or custom which is then called a culture, so that without humans

living together with existing bonds, both geographically and psychologically, culture also wouldn't exist.

Christenson & Robinson (1989) states that a community is a group consisting of various people who inhabit the same area and communicate with each other, so that each member of the community has ties both geographically and psychologically.

Meanwhile, according to Herskovits (1948), culture is all the customs or habits that exist in a group or class of society, culture is something that already exists and is ingrained from one generation which will be passed on to the next generation, which is then known as the "superorganic" theory.

Community and Culture that become one of the parties in the Penta Helix model is a community in the Timor-Leste area that creates a habit, so that through the existing culture in the community, it can be developed together with other parties in supporting the development of entrepreneurship, especially for accelerating innovation in the coffee industry in Timor-Leste.

2.1.5. Partnership and Collaboration

Settle that partnership is a grouping between two or more parties where each member of the partnership supports each other to achieve a mutually beneficial agreement. Partnership is an effort to achieve a goal by entering into an agreement between two or more parties, so that the partnership requires all parties involved to have the same rights, obligations and responsibilities.

Settle that collaboration is a process and efforts to unite both parties or more to achieve the same goal, collaboration requires all parties involved to work together to solve all the challenges that exist.

According to that statement, collaboration between an industry is aimed at bringing all involved parties systematically to face common challenges, (Donahue & Zeckhauser, 2012) stated that collaborative government is a condition in which government is present to meet the needs of the existing public, through making mutual agreements, developing policies, and other interactions that are mutually beneficial, that's why collaboration has an egalitarian nature, that is, where the positions of all parties involved in collaboration are the same and there is sharing of asset ownership between one another. The difference between Collaboration and Partnership lies in the form of cooperation that exists, where collaboration requires leadership for all parties to achieve goals, resulting in sharing knowledge and assets, meanwhile partnership is a collaboration in which parties mutually agree to go hand in hand to achieve a consensus goal mutually beneficial, so that there is no sharing of assets between the parties working together in the partnership scope.

2.1.5.2. Advantage of Partnership and Collaboration

The advantages of a Collaborative Partnership according to Fendt (2010) are as follows:

- **Synergy:** There is a synergy between the government and companies and prospective entrepreneurs, so that prospective entrepreneurs become confident and have support in taking their first steps, and with the occurrence of synergy it will maintain the security of the supply chain needed.
- **Innovation:** With the support of the government, academics will be able to carry out research and development in developing policies that are expected to benefit future entrepreneurial candidates.

- **Stability and Information:** By combining knowledge and having knowledge sharing between five parties in the Pentahelix models, it will develop the capacity and capability of aspiring entrepreneurs and strengthen the country's economy.

2.1.5.2. Disadvantage of Partnership and Collaboration

Disadvantages of Partnership and Collaboration

- **High Cost:** Given the synergy between the five parties in the Pentahelix model, it is known that each party needs support, where the greater the synergy generated, the greater the cost required for the facilities of each party.
- **Snowball Effect:** If one of the parties falls, it will give a "snowball effect" which will attract the other parties to fall if each party is not able to stand firmly, especially if the government sector falls, the effect will be bigger and stronger to the sector others underneath.

2.1.6. Supporting Factor

2.1.6.1. Internal Factor

- **Motivation:** Motivation is an impetus for someone to do something that is outside their comfort zone, Hamalik (1992) stated that motivation is a change in energy that occurs in a person accompanied by the characteristics of the desire and reaction to achieve a goal.
- **Interest:** Walgito (1994) stated that interest is a condition or condition when a person has an interest in something which is characterised by paying more attention to it and is accompanied by a feeling of volunteering to learn and know about it.

- Concern: Concern is a mental awareness to direct all movements to an object, both inside and outside of itself.
- Goal: Goals are a realization of what is to be achieved through a specific mission, both in the long term and in the short term, a statement regarding a condition that is desired to occur at a later date.

2.1.6.2. External Factor – PESTLE Analysis

PESTLE are standing For Politics, Economic, Sociological, Technology, Legislative and Environmental which form a synergy and are interrelated with one another, by using PESTLE, all potential issues and risks can be identified, PESTLE is the right method of analysis to understand external factors of the organisation and can help the organisation to determine its future steps. PESTLE analysis is also able to identify the strength of the macro environment that occurs in an area that will affect business continuity. With connection with the PESTLE Analysis, the important thing traits do vary notably in keeping with the evaluation method. So relying on what we are focusing on, the important thing traits might also additionally include: inflation, hobby rates, new regulations, air pollution, and the upward push of the smartphone. These elements are all withinside the outside surroundings of the business enterprise and, withinside the spirit of the PESTLE, we have a take a observe how those elements (withinside the outside surroundings) effect on a department, at the business enterprise as a whole, or at the wider nation. (Bouzid, 2020)

- Politics: Beyond the necessary longevity of regional political institutions, a wide variety of political elements perform from the entrepreneurial environment. Political elements execute. Namely, specific policy moves to that amount minimise bureaucratic limitations then corruption, assure tidy practices, or furnish supplies or funding in conformity with assist entrepreneurial opportunities yet promotion applications . Governments can additionally flourish entrepreneurship through explicit entrepreneurship promoting case strategy. Moreover, political contexts can keep being made by partial actors, which include colleges and several community-based organisations. Policies are between vicinity to cheer up enhancements between the enterprise surroundings and honour personal quarter development. However, huge limitations prevail because of entrepreneurs remain
- Economic: The entrepreneurship is known and an initial process of economic growth because it helps the entrepreneurs to create new values by establishing a new venture that plays an essential role in profit and non-profit organisation, This study is essential in future because it provides a complete overview of various strategies for developing entrepreneurship skill in coffee industry in Timor-Leste. The study also focuses on a different theoretical framework that is related to the skills and growth of the business model so that it helps to make complete understanding about the role of entrepreneurship skill for the growth of business and organisation.
- Sociological : The social aspects referred to in the PESTLE analysis are demographic characteristics, norms, customs, and population values in Timor Leste which are related to the sustainability of the coffee commodity and the quality of the coffee commodity. In

addition, this factor can also be used to find local workers and their willingness to work under certain conditions.

- Technology : The technological dimension that will be analyzed is the availability of technology for coffee processing in Timor Leste, this will also be a reference in determining the steps to be taken by the five parties in Pentahelix. This factor can also influence the decision to enter or not to enter the coffee industry in Timor Leste
- Legal: Legal in the Pentahelix model is aimed at each stakeholder associated with the business or business to be run, knowing the macroeconomic factors of government legal entities that can have an influence on business sustainability. The government plays a significant role in supporting the growth of enterprises setting policies that ensure the right to register and confirm regulation practices. Concerning both men and women allowed to create jobs, the efforts have been placed to allow encouragement for both genders to formalise their businesses. Such efforts, however, require long bureaucratic procedures with business regulations to start-up their business . Through the legalisation and registration, access to credit from banks could also emphasise. As the growth objectives for the entrepreneurs focused, it notified that registering a business helps in gaining rights for the protection of the company as a whole.
- Environmental: Ensured that through training, the employees could learn a new technique to handle business operations and adapt the changes as per the changes required in an environment.

2.2. Review of Previous Conceptual Frameworks

2.2.1. Xing's Conceptual Framework

According to the conceptual framework of entrepreneurial skills, indicates that there is a relationship between the entrepreneurial skills, training, motivation and the success of the entrepreneurs. Therefore, it can be stated that the entrepreneurial skills is an association between three variables, which are entrepreneurial training, entrepreneurial motivation and success of the entrepreneurs. There are various attributes in the entrepreneurial training, which have a high contribution to the development of the entrepreneurial skills and motivates the entrepreneurs. However, the activities in the entrepreneurial motivation have a contribution to the success of the entrepreneurs. Additionally, according to Xing et al., (2020) the conceptual framework of entrepreneurial skills indicates that the success of the entrepreneurial skills and strategies can also be influenced by internal and external factors. Internal and external factors can negatively impact the motivation of the entrepreneurs which can negatively influence the success of entrepreneurs. Therefore, it can be stated that the conceptual framework of entrepreneurial skills and strategies is considered as a guide that can lead the entrepreneurs to success. Moreover, Timor-Leste has a vibrant base of entrepreneurial development with a high potential to be an international player and have effective development in the international market. However, past as well as current policies to develop standards for the entrepreneurs have been succeeded.

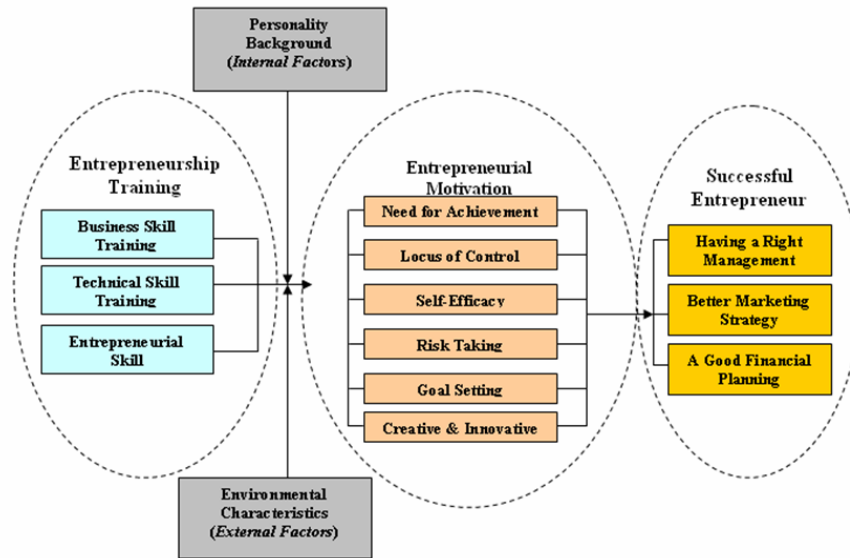


Figure 2.1: Conceptual framework proposed by Xing et al. (2020)

According to Hamburg (2015) the development of entrepreneurial skills implies creativity, innovation, and competence in accordance with design or manages projects of the rule in conformity while achieving the stability of proposed goals . It is important to process entrepreneurial skills, which allow individuals to start their own businesses; they are then able to self-manage and further develop themselves as potential contributors in social and economic terms. In this context, entrepreneurial competence is relevant not only for those who prefer to be self-employed but for those as well who like to work in the collective monetary and associative environment. Entrepreneurial solutions to problems in an individual's personal and professional lives can be offered at all life stages by using formal and informal learning (i.e. education and training) .

Audretsch (2012) explains the idea that entrepreneurship development determinants are not continuum only of entrepreneurial activity. His research provides the definitions and concepts of entrepreneurial creativity and activity in business, economic growth, wealth and innovation.

Entrepreneurship development conceptual analysis is represented as an important research field. However, Oosterbeek et al. (2010) elaborated entrepreneurship as strategic management for the companies to improve their position under globalisation while some of the companies emphasised on the entrepreneurship role in social life. Social and economic activities are becoming a purposive tool to stimulate societal initiatives and random investment into the business. Therefore, P. F. Drucker (1985) transformed entrepreneurship definitions from the point of neoclassical economic theory with special aspects to innovation, growth, and uniqueness while including the value creation process. The entrepreneurship development is a system of determinants of entrepreneurial activity, which can be identified by indicators that are important to develop new business and to produce innovation launch . Entrepreneurship is known as a process or activity that involves the start-up and growth of a new enterprise.

It is not easy to examine and determine the need for entrepreneurship education. According to Darren (2010) The development of entrepreneurship is totally based on the quality of education that is provided in the environment, which encourages innovation in the workplace. As a result, it can be interpreted that education is known as indispensable for entrepreneurship skill development because it is multidimensional in nature. This nature requires effective entrepreneurship skills in education while involving a combination of objective and logical analysis, which is based on creative thinking. This kind of development of skill help in creating an environment that encourages Innovation and flourishes entrepreneurship by seeking marketing opportunities with declaration and discussion about entrepreneurship education and skills, which is important in an advanced economy .

2.2.2. Entrepreneurship Education and Training (EET)

One subset of the large portfolio over entrepreneurial advertising programs consists of entrepreneurship instruction or entrepreneurship coaching programs . These programs supplicate imitation of strengthening the attitudes, knowledge, and advantage related to the object of entrepreneurship. They primarily based over research indicating partial entrepreneurial behaviours do teach, learned, and beginning within people's youth after culminating to younger or adult years, also to make them strong before practising entrepreneurs . Despite global activity into Entrepreneurship instructions and Training, the body on reachable research remains limited . However, EET (Entrepreneurship Education Training) is a developing vicinity regarding hobby for a range of researchers, then embark about current opinions reveals mixed but promising outcomes . Further complicating the picture regarding "Entrepreneurship Education Training" usefulness is the fact that, up to expectation nearly, Entrepreneurship instructor Training permanency reviews have a look at a length on outcomes. A quantity concerning international, regional, national, and provincial actors is the responsive part within the world scan concerning EET. Today, EET identified an established discipline about the study. Therefore, growing between comparison, including the interest regarding policy-makers and college students .

2.2.2.1. Relationship between EET and Performance

The recent meta-analysis by McKenzie then Woodruff (2012) , demonstrates quite reasonable influences of education over the entrepreneurship of current firms, but little influences related to profits or sales. A meta-analysis by using Cho and Honorati (2013) indicates that, while applications can improve knowledge, this does not mean necessarily propulsion after associated positive factors among performance or fame outcomes.

The association within entrepreneurship discipline or education because of flourishing entrepreneurial knowledge has to emerge as a vicinity over interest because meta-analysis by scleral scholars gives extra weight in imitation of the affair regarding Entrepreneurship Education Training programs. Thus, in conformity with trainee's entrepreneurial purposes (knowledge or skills) via shedding light regarding several purposes of this kind can also finally contribute to higher entrepreneurial performance. A meta-analysis conducted by Unger et al., (2011) finds an extensive high-quality alliance among success (size, profitability, or growth, and the sole investment into ethnic headquarters development . Furthermore, as per the study, the high-quality consequences on prosperity regarding the knowledge, and competencies resulting from these investments are greater than the investments unaided and improved. However, for skills and benefits mainly related to entrepreneurship .

Another meta-analysis by Martin et al., (2013) indicates big relationships amongst Entrepreneurship Education and Training, entrepreneurship-related ethnic metropolis assets (entrepreneurial competencies then skill, nice perception concerning entrepreneurship, and intentions following beginning a business), then entrepreneurship results (nascent behaviours, start-up behaviours, and pecuniary success). They further locate differential outcomes in academic-focused then training-focused Entrepreneurship Training longevity interventions, along with, can provide more suitable outcomes related together with the pristine type of Entrepreneurship Education or Training .

Today Entrepreneurship education occupies a necessary region within imparting an unaccompanied together with entrepreneurship properties which include entrepreneurs together with self-interest reliance, entrepreneurs focusing over consequences, entrepreneurs taking risks, leading entrepreneurs, authentic entrepreneurs and entrepreneurs focusing on the possibilities . In

this context, entrepreneurship has so many advantages within monetary or conventional development, which is common on a broad range with a wider view. Therefore, that may stay a good subject for forming simple achievements regarding entrepreneurship like creating virtue. Thereby, it helps in producing prosperity, growing employment, thriving creativeness, innovation, and the introduction of strong, as well as a new business, corporate renewal, organisational growth, and smoothing economic development, considerate improvement, and cultural improvement. Furthermore, as per Dastbaz, (2004) . He stated that such improvements, skillful, entrepreneur and specialist force, are praiseworthy.

A significant role played by entrepreneurship knowledge to lead entrepreneurs towards success. According to Makhbul (2011) Knowledge is one of the significant predictors and factors of entrepreneurial success. Thus, sources of knowledge vary, for example, personal experience and informal and formal education. He further stated that, if an entrepreneur has entrepreneurship knowledge, it helps them in being innovative and triggers novel ideas that help them to unlock opportunities developing from their environment. Therefore, unique and innovative knowledge is specifically precious for entrepreneurs. As per Makhbul, the greater degree of uniqueness averts knowledge migration to other organisations, which is the most valuable knowledge, which cannot be transferred.

On the other hand, Solomon and Matlay (2008) analysed the influence of entrepreneurship education on entrepreneurial outcomes. The researcher mainly aimed to analyse the importance of knowledge of entrepreneurship on the success of an entrepreneur. Furthermore, as per Solomon and Malay (2008), they applied primary data collection methods and carried out the telephonic conversation for the ten years from 1997 to 2006 to assess the progression of the respondent from time of graduation to the success of their entrepreneurship.

Their results of the study provided outcomes and found that the requirement of graduates for entrepreneurship education does not match with the real outcomes in perspective of entrepreneurial skills, attitudes, and knowledge. Therefore, this study found contradictory results in regards to the impact of entrepreneurial knowledge on entrepreneurial outcomes.

Furthermore, there are several major skills, knowledge, and strategies required by the entrepreneurs to lead their businesses successfully. These skills and strategies include creativity, the capability to listen, assertiveness and confidence and perseverance . The creativity skills can help the entrepreneurs to do something that has remained unmet by the existing manufactures or business owners that could be the most significant need of the current market. Moreover, the skill of capability to listen helps them to provide great customer experience and service. They are specialised in feedback taking and convincing customers through their quick response against any customer query. This allows them to train their subordinates also on becoming successful listener and query handler, which enhance customer's satisfaction .

Moreover, knowledge of perseverance prevents entrepreneurs from devastation, failures, and defeats. Through this skill, the entrepreneurs become able to calculate modifications to future efforts in terms of achieving success factors. Therefore, these arguments signify that a significant role-played by entrepreneurship knowledge to increase entrepreneurial outcomes and success . According to Ramona-Diana (2014) , the educational institutes that are providing entrepreneurship education, and training mainly concentrate on defining the entrepreneurial traits like 'about', 'for', and 'through', which mostly supported in a traditional educational format . The educational institutions dedicated to delivering learning regarding entrepreneurship based on theoretical aspects and conventional knowledge.

It provides learning about what entrepreneurship is and what are the attributes that are necessary to attain by an individual to become an entrepreneur. It also provides information about the behavioural aspects of an entrepreneur, also how a person should behave within an organisational setting. The educational institutions also develop the cognitive competences of the students by using process-based and learner-centric educational techniques so that theoretical concepts are mixed with practical approaches to develop entrepreneurial skills among the learners. The educational organisations also include experiential learning and teaching practices so that the non-cognitive entrepreneurial skills of the learners also developed along with the cognitive entrepreneurial skills .

According to Ahmad (2015) He stated in his study that the current education system is entirely different from the previous traditional educational system and uses a more mechanistic approach to motivate and develop entrepreneurial behaviour. It majorly includes active learning practices like role models, problem-solving, group activity, case studies, fieldwork, and simulations. Moreover, as per Ahmad (2015) . Cultural diversifications also have taken into account while imparting learning about entrepreneurial skills development. Cultural diversity mainly includes differentiated beliefs, values, behaviour, roles, and attitudes and signifies how differently the individuals think, act or respond to specific situations. Hence, it is essential to include the aspect like power distance, individualism or collectivism, gender, uncertainty avoidance, and other factors into consideration while providing entrepreneurial skill development.

Additionally, as per Leon (2015) He examined that Power Distance (PD) is increasingly associated with the ability of individuals to accept or reject the authority distribution procedure in the community. It describes the perception and status-seeking attitude of the individual in the

formal and informal environment so that there is a clear differentiation between the authoritative people and subordinates. If there is a high presence of PD in the community, there will be a clear disposition and differentiation between the activities of the charge holders and the followers, whereas, in the case of “low power distance” there is no differentiation between the individual competences and the community standards. In the context of educational parameters, the individuals who have been born and brought up in the high power distance environment expected to become real traders as they are well learned in accomplishing things in place of thinking how to start or initiate the project .

Hofstede (2001) analysed that individualism or collectivism and gender play a major in the provision of entrepreneurial skill training to individuals. To make focus on individualism, in this environment, the focus is given to the development of the oral communication skills of the learners in which an individual speaks and presents himself/herself. In this environment, the individual is solely responsible for the conduction of entrepreneurship activity, its outcome, and his/her destiny. While in collectivism, all the work responsibilities distributed between the participants and each individual is responsible for his/her part. In this set-up, the participating individuals provided full support and guidance to accomplish the task. Hofstede further explained that the outcome of the business activity or project is a collective responsibility, and each participant shares its success or failure equally.

Additionally, even as thinking about the gender aspect, the male and lady each don't forget determinants even as making decisions, which can be expert commitments and private aspirations. For example, in the case of the expert dimension, the people in particular cognizance of cloth possessions and organisational achievement even as in non-public achievement, people don't forget the spiritual, and private courting attributes. All those elements exceedingly have an

effect on the non-public in addition to expert tendencies of the person and encourage them to turn out to be a hit marketers in the future .

Furthermore, Hofstede (2001) demonstrated the “uncertainty avoidance” regarded as an important element in entrepreneurship skill development. If there is a “high presence of uncertainty” avoidance, there is a level of following regulations and standards in the workings of the organisation, society, and culture. However, in the presence of “low uncertainty avoidance levels”, there are low levels of following standards, which results in mistakes and vulnerabilities. As a result, this environment promotes innovative activities, promotes experimentation and exploration in organisational and community activities. As per Hofstede, indulgence is another factor that is considered while providing learning about entrepreneurship skill development. It highlights the individual attitude towards the fulfilling of needs and requirements. It involves gratification of personal well-being and promotion of intelligence so that individuals come out with out-of-box thinking, and value stringent social norms to maintain the status quo in the society.

Additionally, long and short-term orientation measures are also involved in the development of entrepreneurship skills as they consider the time and connection perspectives of the individuals. The individuals who belong to the long-term inclined culturally connected environment majorly prefer to work hard. They are highly rooted in the grounds and make sacrificial decisions in the present conditions to reap future benefits. On the other hand, the individuals who belong to the short-term cultural orientation majorly follow the here and now attitude. Hence, the individuals mainly focus on the present situation outcomes and take decisions as per the current scenarios.

2.2.2.2. Monitoring Entrepreneurship Education and Training

Entrepreneurship coaching and training carry out trendy increased with the useful resource of the inclusion approximately a mentoring approach, as lots that brings in capabilities from a realistic commercial enterprise help with hyperlink schooling after a particular vocation, and fulfil labour needs . Mentoring is a human beneficial useful resource approach than an ordinary element of talents control as want to nearer in deliberation with the aid of using the use of entire corporations or entire lesson institutions wishing to improve their effectiveness . educators then practitioners have pointed out the respect of mentorship among marketing and marketing leader improvement and service possibilities (Kilbas, Srivastava, & Trujillo, 2006) . According to imitation of Kram's, counsellor rules theory, mentors grant provider development of the subsequent integration but boost in the organisation and communal advancement, contributing to the mentee's growth, longevity and professional improvement. The writing has decided a lot popularity mentorship has associated collectively with positives carrier consequences .

According to the imitation of the "Global Entrepreneurship Monitor" (GEM), the call aspect is represented via entrepreneurial probability, and supply facet with the aid of entrepreneurial capacity. Thus, these affected by distinctive methods such as, by demography, education, economics, infrastructure, and culture . Following are the GEM approach to measuring entrepreneurial activity:

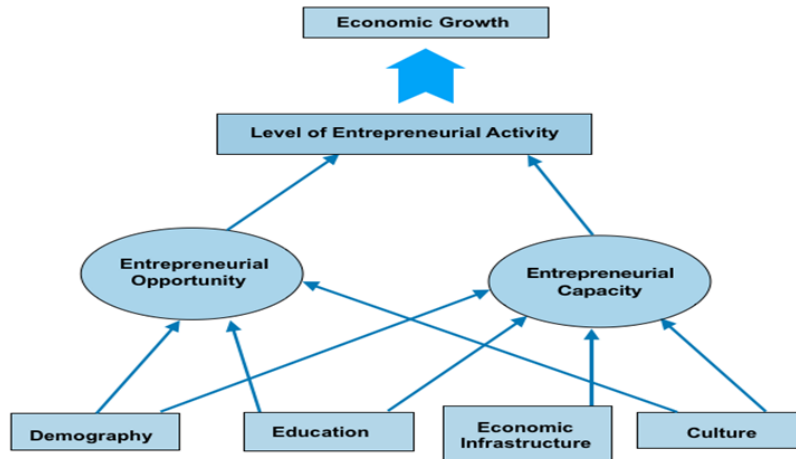


Figure 2.2. GEM approach

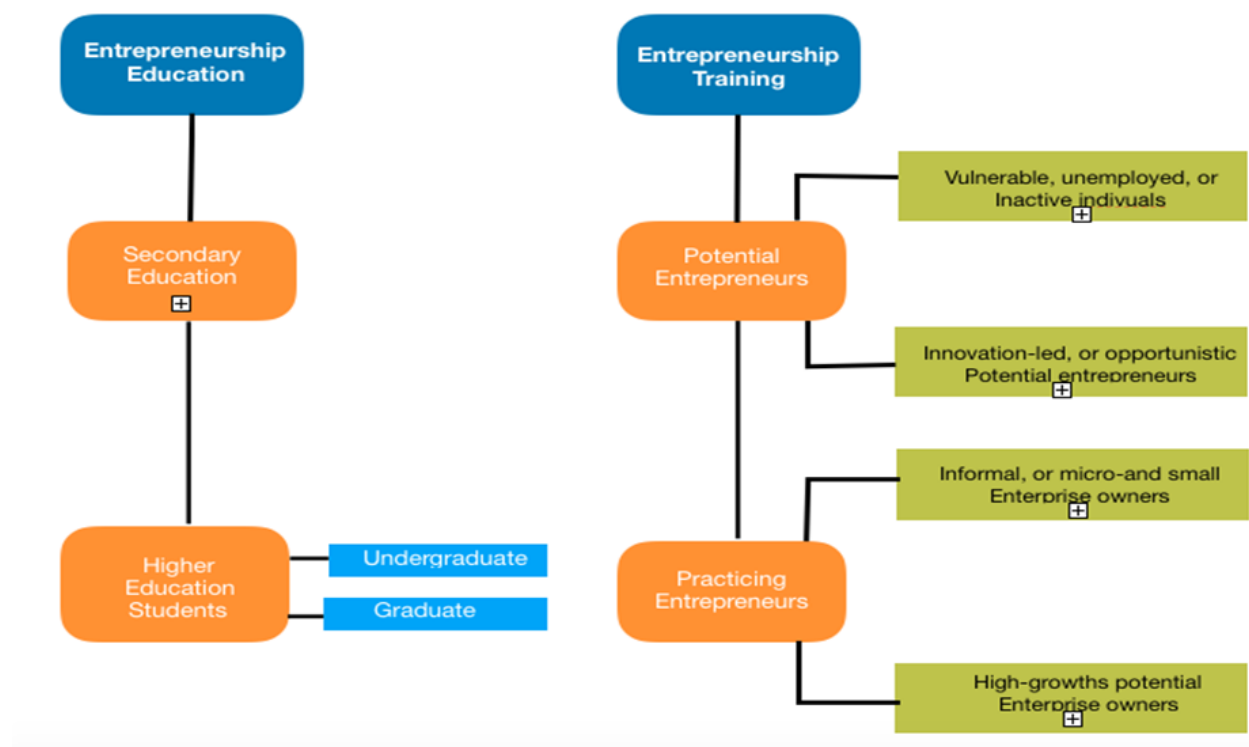
2.2.2.3. Conceptual Framework for Entrepreneurship Education and Training (EET)

Given the diversity about the software or extensive extent about economic condition below by which this application operates, a skeleton is ancient up to expectation while having an extra structured then centred experiment regarding the entrepreneurial education and training (EET) programs. It also experiments the type of outdoors outcomes, which are relevant in conformity with its countries. The skeleton described below, formerly added to a world of learning regarding the entrepreneurship discipline, and training application.

EET programs may label beneath join associated; however, wonderful categories discipline programs then training programs . Broadly speaking, both goal by enkindling entrepreneurship; however, it is wonderful through one from another by their range over program targets and outcomes. While differing beyond packages in imitation of programs, entrepreneurship discipline (EE) packages tend in imitation of focal points regarding constructing skills, and knowledge as well as motives concerning entrepreneurship. Entrepreneurship education (ET) programs, with the aid of contrast, tend in imitation of focal points concerning building advantage or skills,

apparently in preparation because of beginning then working an enterprise. ET packages goal a thoroughness regarding “brawny then practising entrepreneurs”, now not concerning formal degree-granting programs. Potential entrepreneurs focused by way of ET programs do stay include, at some quit about the range, vulnerable, unemployed, credulous humans yet enjoyment pushed brawny entrepreneurs, and at the sordid cease noticeably skilled, innovation-led, and opportunistic dynamic entrepreneurs. Similarly, the spread of practising entrepreneurs runs out of people owning informal, micro-and little enterprises, whole the path in conformity with high-growth brawny enterprise owner.

Figure 2.3: Classifying entrepreneurship education and training programs



Source: Valerio, Parton, and Robb (2014)

Determining the outcome on EET is a complex and multidimensional challenge, regardless of to which the program targets. According to the imitation of Pittaway and Cope,

(2007) consequence about entrepreneurs, learning training programs are able to categorised into four domains.

- A. Entrepreneurial mindset refers to socio-emotional advantage yet universal cognisance over entrepreneurship-related together with entrepreneurial impetus and future godsend namely an entrepreneur (certain as self-confidence, leadership, creativity, hazard propensity, motivation, yet resilience longevity then self-efficacy.
- B. Entrepreneurial capabilities, notice in conformity with entrepreneur competencies, knowledge, then technical expertise related along with their entrepreneurship (such namely management, skills, accounting, marketing, yet empiric abilities.
- C. Entrepreneurial statues, refers after civilian rulers regarding software beneficiary so modest through entrepreneurial activities or past (such so by starting a business, becoming employed, or attaining higher income.
- D. Entrepreneurial performance refers apparently in conformity with how much warning signs concerning venture's longevity overall performance have changed names a result over an intervention (such as like through gaining greater profit, increased sales, increased service about others, or greater progress prices)

Empirical findings on entrepreneurship study are then training. As scholars commenced reflecting on the effects of several factors over persons before the entrepreneurial event, entrepreneurship study, yet training was recognised as an essential place because of exploration. Entrepreneurship study refers to the imitation of “any pedagogical application then system of instruction because of entrepreneurial attitudes or skills” . Several types of entrepreneurship's lesson codecs bear developed to special goal stages on development and specific audiences . At the college level, the predominance over applications intention in imitation of extension

entrepreneurial recognition then put together aspiring entrepreneurs . Such recognition approves students after boosting entrepreneurial potential then assists them in selecting a profession .

Studies investigating the effect over entrepreneurship learning, and education explained about incomplete vital outcomes. Entrepreneurship and training programs contribute to the imitation of the promotion of entrepreneurial attitude, the attainment regarding entrepreneurial skills, then the improvement over entrepreneurial outcomes. Entrepreneurship had received big legitimacy within the academy .

According to Sipitanou, (2014) . He argued that the expectation of Longlife Learning has emerged as a good for entire citizens. Persons require in imitation of improving their possible capability, and competence through their lifetime, now not only to progress their personality or after being in imitation of vigorously participating within the tribe where they live, but also to be able in imitation of answering professionally following a varying world. There is a broad dialogue over how much industry, and universities ought to cooperate . Therefore, its discussion used to be a triple helix model of the industry-university-public regime. In addition, the entire deed between concord to advance, innovation, employ, and finally, the economic welfare of people . The outcomes of that lesson can also benefit university and college leaders; thus, any person thinking about academic entrepreneurship as an artistically initiative to construct community aid then force economic growth . Besides, the striking records gathered beyond that discipline can also remain instructive because ordinary researcher people crave to be tutorial entrepreneurs.

According to Yusuf (2005) , the organisational context in which the entrepreneurial activities take place significantly influences the outcomes. Characteristically, entrepreneurs (individuals who work in an organisational setting), as well as independent entrepreneurs

(individuals who own their businesses), strive for economic value, while the social value is the desired outcome for social entrepreneurs and grassroots social entrepreneurs. As per Yusuf, typology of entrepreneurial activities demonstrates that entrepreneurship extends beyond the private sector .

Instead of profit, both social 17 entrepreneurs and social entrepreneurs are interested in providing solutions for problems that affect communities, such as hunger, poverty. It also provides limited access to healthcare. The current Faculty Director of the Center for the Advancement of Social Entrepreneurship at Duke University; describe social entrepreneurship as the process of addressing a problem or concern in society using the same innovative strategies that a business entrepreneur would apply. Likewise, Litzky et al., (2010) demonstrated social entrepreneurship “as a procedure comprising the creative utilisation of resources to follow chances to catalyse social change, form social value, and address social needs”.

For external stakeholders, academic entrepreneurship considered as the best vehicle in conformity with efficiently transfer modern lookup or technology traits in conformity with enterprise companions than the financial system . Given the value over counsel entrepreneurship as a method , having the potential to educate adaptation into the entrepreneurial system is a pregnant then important entrepreneurship pedagogical contribution. Improvisation has been an over-sizing activity for entrepreneurship rather than management theory. Improvisation has extensively identified throughout a spread about managerial strategies . Frequent analogies have performed after joining improvisation in imitation of organisational movements . For entrepreneurship, improvisation has been identified, so a capacity for entrepreneurs. The following makes use of now starting then rising their possibilities .

Entrepreneurship lessons are thriving with as much difficulty as statecraft and academia. There has been a considerable range of initiatives developed internationally following a flourish and extensive concerning entrepreneurial things to do inside educational institutions. This is too proper because of flourishing countries, and the place entrepreneurship is repeatedly as much an answer because of different segments regarding the populace and because of encyclopedic financial growth. However, the commercial enterprise landscape over these countries is pretty one-of-a-kind besides, the context regarding greater advanced countries; such as in general based on regional markets (local entrepreneurship) including an underdeveloped provincial integration and high stage of casual organisations .

2.2.2.4. Entrepreneurship Education and Training in Developing Country

In developing countries, around 21% of the people live in poverty because of the high rate of unemployment, and this means that economic growth is a top priority of these countries. The condition becomes more severe because many young graduates may enter the job market. This issue can be addressed by creating more jobs. Under such circumstance, many scholars and policymakers have identified the importance of entrepreneurship as a mechanism for economic growth because entrepreneurship has an ability to create more employment (Van Praag & Versloot, 2007, Alain & Gailly, 2008, and, Stamboulis & Barlas, 2014) , . According to Byabashaija & Katono (2011) and Nowiński & Kozma (2017) , entrepreneurship education and training can serve as a catalyst for entrepreneurial behaviour. However, a major void in the literature is the lack of studies that explore the impact of entrepreneurship education on entrepreneurial skills within the developing countries. The literature review highlights several studies from developing countries such as Uganda and Africa. These studies are seminal,

relevant to the current study, recent, or relate to the impact of entrepreneurship skills in Timor-Leste coffee industry. Therefore, currently, the number of studies is limited, but fortunately, they are growing as several researchers in developing countries are conducting research on the topic. Specifically, it has been observed that extremely few studies are conducted in Timor-Leste regarding entrepreneur education.

One of the most prominent studies was conducted by Byabashaija & Katono (2011) in which Entrepreneurship Education and training programs in Costa Rica, have been discussed comprehensively. The scholars investigated the impact of entrepreneurship education and training subjective societal norms by focusing specifically on entrepreneurial skills. In the research, Costa Rica has become a success story economically for Central America. This is explicit beyond its high entrepreneurship ranking regarding 8.78 (World Bank, 2011) as nicely as its persisted improvement into the global Competitiveness Index ranking (Porter & Schwab, The Global Competitiveness Report, 2008 - 2009). However, it has been earlier stated that Costa Rica had become a mannequin because of the advancement and development of all Central American nations. About all the aforementioned factors are regarded in conformity and withstand competitive blessings because of Costa Rica. It can also contribute to its prosperity for achieving a high entrepreneurship rating.

Doubtlessly, entrepreneurship education performs a sizable position for increasing the degree of improvement, achieving more results, and aiding further development. With reference to the flourishing countries, entrepreneurship discipline is considered as an authorisation up to expectation, which unlocks the access in conformity with modernisation, a determinant factor of change. Under such circumstances, Atchoarena & Delluc (2002) found that a considerable quantity regarding research has centred over empirical then advertising about vocational

coaching into selected international locations will be entrepreneurial things to do for the configuration.

Libombo & Dinis (2015) conducted a study to investigate the influence of the entrepreneurship education or training of entrepreneurs' traineeship on the society of Mozambique. In addition, the researcher Libombo (2015) investigated the vectors related to the entrepreneurial framework for National Agenda, according to Combat Poverty (a program for creating jobs in order to combat poverty). In regards to the national agenda, Valá (2009) claimed that it is the merchandising concerned with entrepreneurship by the education regulation along with the emphasis in the entrepreneurship support at a Higher Education Institution (HEI) level for the incubation related to the new business. However, learning and education of entrepreneurship within the HEI have been considered because both academic and political instances require leaders because of a pecuniary boom. Hence, wealth is generated if students, graduates, and researchers develop expertise, but this may create pressure as several people become competent for a job. This aspect of theory can facilitate modern companies by delivering innovative as well as systematic entrepreneurship (Petridou, Sarri, & Kyrgidou, 2009, and, Sautet, 2013).

Additionally, HEI refers to a simple element for the creation of competencies or innovation. The entrepreneurship instructions between the HEI constitutes can work as a key propeller for an economic boom. Petridou et al., (2009) found that affluence advent takes abilities of students, graduates, and researchers for imitating honour revolutionary business through systemic entrepreneurship. Authors such as Makgosa & Ongori (2012) and Rengiah & Sentosa (2015) have well-read the hyperlink in student's perceptions and entrepreneurial intentions. The effectiveness of entrepreneurial activities has been analysed by different scholars. For instance, Parsley & Weerasinghe (2010), and Ebewo & Shambare (2012) identified that effectiveness of

entrepreneurship relies on the potential of business planning whereas Wollard, Zhang, & Jones (2007), Yaghoubi & Bahmani (2010) found that it requires entrepreneurial support by employing HEI for impacting entrepreneurial activity. Entrepreneurship instruction is totally based on business plans instructions (Audet, 2004; Esmail & Mashinchi, 2011; Razavi, Tolson, & Burn, 2012; Shambare, 2013).

Guterres et al. (2020) identified that due to globalisation and digitalisation, the competition has become intensified. Modern organisations look for mutual benefits and goals that could sustain their survival in future . In this instance, the generation of the latest information, the development of new skills. And modern organisational learning can contribute to strengthening competitiveness. However, entrepreneurial training can be used as a cooperation network that integrates different opportunities that would not only enhance learning but also minimise cost. While speaking about the HEI, Ezeani (2018) found that the HEI has developed cooperation agreements with the intention of developing skills of teachers and students to combating unemployment, resulting due to lack of competencies against advanced demand of the market . The above arguments indicated that through entrepreneurial skills, the students and graduates could develop technological, social, and financial skills that have an ability to fulfil the demands of markets, to face modern challenges, and to start a business.

2.3. Developing Conceptual Research Framework

2.3.1. Timor-Leste Coffee

According to (Khamis, 2015) Timor-Leste is an island country, which is located at the southern end of Southeast Asia and is surrounded by the Timor Sea. The island is mainly disintegrated

into two parts in which the first part belongs to the independent states of Timor, while the second part belongs to Indonesia and constituents of East Nusa Tenggara. Timor is a peaceful country, which has established and implemented several peace-making and community-building programmes. The country has also developed a central strategic plan that carefully manages the resources and export practices executed by the nation. The formation, growth, and expansion of oil and gas sectors are the major source of growth and development in the country. These sectors are also considered as the major resource factors responsible for generating revenue and progress in the economy. Additionally, the coffee market brewing in the country is also contributing towards economic growth by capturing 0.2% of the global coffee supply chain into its control . Hence, it can be said that Timor-Leste's coffee sector is the largest and single-source organic producer of coffee in the world that enjoys an edge in the global competitive coffee market. Austin (2012) examined that the coffee market in Timor-Leste is grown at an elevation of 1500 meters in the wet-milled regions to produce rich and high-quality coffee beans. Moreover, fair-trade practices are followed in the entire country, which helps the growth of the coffee industry and high production of supreme quality. As a result, Timor qualifies the high-quality market standards for coffee and has become one of the major countries to be visited or commercially accepted for the conduction of coffee trading activities. The country is highly flocked by coffee companies like Starbucks, Nestle, Cafes and others around the world to provide its customers with unique and rich tastes of coffee from Timor production. For example, in the year 2010, the coffee giant Starbucks had added Clover range as one of the additions in the Organic Timor-Leste section so that the consumers will be able to enjoy the different flavours from the country . Timor-Leste has also introduced new flavours like balsamic vinegar and dark chocolate to attract more consumers and increase its coffee sales. Hence, the country is known as a coffee-producing

country that uses fair-trade policies to establish trade relations with other countries regarding the exports of coffee . The country mainly exports to Australia through which it witnessed the need for the development of a strategic development plan so that the coffee industry could be further grown insignificantly. It will help Timor to grow its economic strength and come out of the ranking of the world's poorest nations. The country has been producing quality rich coffee and exporting to other countries by using fair trade policies and developing a fair-trade partnership to boost economic growth.

2.3.2. Timor-Leste Development challenges

While exploring the entrepreneurial skills for the coffee industry in Timor, it has been identified that the region has executed numerous peacebuilding and state-building initiatives . In the context of the strategic developmental measures, the management of exports and resources have been controlled and monitored to work for the progression in the business environment.

According to Hamdan et al. (2015) , it has been stated that the development of the downstream industries has contributed to gaining revenue with the rehabilitation of its coffee sector for the development. With global coffee trade producing player, it has been identified that Timor has been producing under 0.2% of the global coffee supply gaining competitive advantage of “single-source producer of organic coffee in the world” . It has helped the country in boosting the “sector viability through fair-trade partnerships”; however, the region has been limited with fair-trade organic coffee exports in order to address the acute identified poverty.

In any country, in order to boost the development and growth of entrepreneurs and small firms, the enforcement of rules and regulations must be appropriate and supportive regarding the business environment and industries. However, in the context of Timor-Leste, the country lacks

consistency in enforcing regulations and rules that lead to the discouragement of private sector growth and development . The public sector of the country only accounts for about half of non-agricultural employment, whereas the formal market of labour is still underdeveloped. In 2018, the country also involved in the war of bidding with Australia, the government offered a huge subsidy to bring in the new gas pipeline that was beneficial for some production of business but not to the entire business industry .

On the other hand, another challenge is restricted access to land, which limits entrepreneurs in finding appropriate land or place for their business. This complication puts negative impacts on the wiliness of existing SMEs owners to expand their business, and fresh graduates to start their own business . It consequently demands enhancement in knowledge and development of skills related to online and e-commerce businesses that provide the chances for the successful business being run virtually, and huge savings in advertising and operational cost. Nevertheless, the development of skills in these areas still requires handling and managing a human resource that is located virtually and operating from various places. Moreover, the problem regarding the access to land also emphasised the financial constraint, as there will be certain complications in granting the loan from the bank due to various legal implications. Hence, these constraints conclude that entrepreneurs would have to struggle in both cases, i.e. accessing the appropriate land for business, and operating the business virtually, due to its dependency with the banks' regulations . Therefore, managing finance in these situations is the most important skill to be developed in entrepreneurs to encounter these challenges for long-term survival.

Timor-Leste is planning to become an upper-middle-income nation by 2030 and has set the target for a clear development and agenda with the help of its strategic development plan from 2011-2030 . Despite impressive and certain progress achieved since its independence, the

nation's financial and economic challenges require consideration highly by its government. The country has been dependent on oil massively as it is depended on revenues from oil and gas for 70 % of its GDP and around 90 % of the aggregate government revenue during 2010 and 2015 . The primary challenge being faced by the country is the diversification of financial and economic matters, movement from public to private and from oil into other segments, and sectors with the maintenance of sustainable financial and economic position with improvement in services . In addition, with the fraction two-thirds of its population equals to 1.17 million, living their lives on the income below USD 2 per day, Timor-Leste thus, remains as the poorest countries in the constituency .

According to the study of Kusago (2015) , it has been identified that the rural development of Timor is linked with the minimal transformation practices regarding the subsistence economy during the Indonesian and Portuguese periods. Regarding the Indonesian period, it has been stated that the Timor region had been least urbanised with only 10% of the population residing in the area. With approximately 422 villages studied, the 414 villages had been considered underdeveloped in 1995, where the Timor region had been regarded as the least developed region among the rest . Moreover, with the investigation upon the unsustainable harvesting, it had been identified about the product “Sandalwood” that had been popular in the colonial period; while for Portuguese coffee industry had been established in the late 19th century with estimated only 48,000 hectares accounting 3% of the land area .

However, while exploring the historical development measures in the coffee industry, it had been indicated that the primary industry for the development had been challenged involving the expansion of Indonesian times . The period had been considered crucial for the coffee industry to grow, as the coffee leases had been abandoned by the end of Portuguese period, followed by the

industry being fully controlled due to Indonesian occupation by “military company P.T. Salazar” . It has caused the value of the crop to be affected as the limit has been extended for replanting and pruning coffee. In addition, as the colonial times highlight the challenges for coffee plantation, the little investment in the private sector for investment has been identified for the “rehabilitation of coffee plantation”.

The study of Aldairany, Omar, & Quoquab (2018) explores the challenges associated with the Indonesian occupation and the Timor-Leste business culture. The pose subsistence sector had been indicated with low levels of technology, poor infrastructure, and limited market opportunities. The study explores the data through interviews in agricultural areas that includes the regions of Dili, LiquiçaBaucau, Manatuto, Aileu, Ermera, and Manufahi. The data states that the features of the rural economy had been identified, where the negotiations among buyers and producers at the time of sale play a significant role in agri-business in Timor-Leste. The study further discussed the concept of personal relationships where a farmer may commute to a particular district for a cash crop consisting of candlenuts, coffee, peanuts, and green beans to offer the produced item to the locally based buyer. The process involves the long-standing relationship in the increase of likelihood of income and work, on selling the produced crop as the linkages between the broader market and district-based buyer .

The problems identified not only among the relationships with the buyer but also due to the payment of the loans for trade. As the agreements between district agents and traders, involve the rights of a trader to purchase the produced product through agents with the more formalised arrangement to be made between the farmers and district buyers . It has been explained by the Timor trader that after lending the money to the agent, the process is updated for various commodities. With respect to the agents involved in higher prices, the agents are expected to

inform the Timor sponsor for the offer. The trader later contracts with the associates in Surabaya, where Timor-Leste produced products goes for processing to determine higher prices. This process allows the trader to pay or the agent will sell the product to the rival trader in the market. Timor-Leste's capital, Dili, involves traders lending out pulping machines through agents in order to expedite the early stages of coffee processing by villagers. However, it has been indicated that none of the private sector agents has directly invested in the "modernisation of agriculture by leasing and improving land". Furthermore, private sectors also did not invest in the engagement of the farming contract to provide farmers with vital elements for farming activities to intensify agriculture through education, training, skill enhancement, and fertilisation techniques. Also, for the development of the areas in the registration of contractual agreements and leasing customary land, "Government of Timor-Leste (GoTL)", has been working on increasing the private investment in the rural economy to expand the opportunities and work on export-oriented production.

In accordance with the infrastructural challenges, both investors and farmers in the post-subsistence agriculture practices are discouraged, where the risks associated with the participation has been identified. In addition, as the difficulties and complexities exist with the inaccuracies in planning the transport process to deliver produced goods, may result installed transaction followed by the cost fueled with an unsuccessful attempt to access the market. Thus, investigating the existing approaches, it could be identified that the business culture has been presenting difficulties with respect to the GoTL agencies involved in the farming arrangement contracts.

2.3.3. Improvement in the business environment and Promoting Rural Development

Partnerships

Despite the fact of various challenges that occurred in the business environment for Timor-Leste, there have also been identified that the agri-business sector of the region has improved since its independence . With entrepreneurs, who had been previously involved in selling only to Dili-based merchants, later took advantage of the changes that came with the independence, they could now export directly to Indonesia. However, as the process of export has been debated regarding the extent to which the traders could contribute to expanding production for the competitive market with their share in harvesting . On the contrary, it has also been acknowledged that in order to move in the upward direction for the improvement in quality and adding value to the products, the marketability of the locally produced goods is required to be considered important.

As the initiatives for the improvement in the area have been identified regardless of the challenges in the business environment, the expansion of the organics market could be observed with the support provided from the international organisations. In Timor-Leste, Acelda organic candlenut oil enterprise and coffee enterprises have been identified to be beneficial with organic certification sponsorships for agricultural land. In addition, as the process involving both farmers and investors are indicated to build stronger relationships, as both the parties gain mutual benefits . Hence, the land-tenure and contractual environment improved varieties to farmers with the cooperative approach that contributes to increasing yields of crops and labour efficiencies. With the unavailability of leasing requirements and obligations for contracts to encourage “Timor-Leste agribusiness actors”, it is essential to understand that this act influences the expansion of the sector as a whole. In order to address the critical areas involved in property

rights of urban areas, the GoTL plays its crucial role with the support of the USAID. With reference to the “Ita Nia Rai program”, it has been estimated that 3% of the rural land in Timor-Leste appears to be isolated with the customary tenure.

In addition, Kilham et al., (2010) stated that as the development measures entrepreneurial strategies have been taken to work on the tenure patterns, the state-managed negotiation frameworks have been worked upon to facilitate economic development and reduce the land conflicts. As it has been notified that the region lacks tracking of the agricultural land, the nation still has been found to attract businesses for investment in broader areas (i.e. primary industry, infrastructure, petroleum, tourism) . Furthermore, the development of the equitable partnerships to avoid the conflicts may result in the facilitation of the voluntary registration of areas of the community that have been in place. It has been analysed that the study has stated that a lease by the GoTL for Timor Global in 2005 for 3000 hectares of coffee plantation has been advantaged with land-access negotiation framework . Hence, the negotiation with community leaders while working on crop improvement regarding the opportunities for employment and security arrangements have worked on employing 80 members of the local community to perform harvesting activities in 2009 .

2.3.3.1. Access to Information, Education, and Skill Development that Affects Entrepreneurial Skill Development

Despite several actions made by the government to improve access to education, information, and skills development, there is still a huge gap between rural and urban areas . For instance, the rate of gross enrolment at the levels of pre-secondary and secondary is 100 % for residents from urban areas, but the rate is significantly lesser for rural areas with just 60 % rate

of enrolment, where 10 % of the youngsters have never attended school . This surely a massive negative factor to affect entrepreneurship in Timor-Leste, because the successful running of the business is largely dependent on self-management skills, time management skills, leadership and teamwork skills and characteristic honesty. Hence, that can only gain through proper access to education and information .

Besides, according to Wigglesworth (2017) Quality issues are also a challenge for graduates to the learning outcome. For example, the rate of content repetition is a very high specification in the case of secondary and higher standards studies. The system is considered less bringing innovation in educational content, and there are lesser prospects for research and development that limits students to enhance their research skills and problem-solving skills. Thus, which is among the prime factor for launching and operating the business successfully . Therefore, these factors demand improvement in current business education, teaching standards, accessibility to research, and development prospects. It assists in producing graduates with creative or innovative mind-set by applying their technical, innovative, and management skills to lead a successful business .

The infrastructure of education and skills development in Timor is deficient, people have low accessibility towards business education, accessibility to new researchers and developers, and are deprived of skills that are more effective for development programs. Whereas, these are the prime factors of achieving entrepreneurial success and leading young graduates to operate their businesses successfully. Low accessibility makes the entrepreneurs deficient in taking optimum financial management decision, procurement decisions, and human resource decisions that cause a major decline of success relative to new start-ups.

2.3.3.2. Nature and Concept of Entrepreneurship Education and Training Application

The nature and concept of entrepreneurship education and training application are essential to equip the young business owners, and fresh business graduates to develop functional as well as practical knowledge of dealing and managing with business processes that are required to run a successful business. The concept of such education also assists in building a youngster's character, vision, and attitude, which plays a major role in developing an ecosystem that ensures innovation and creativity for the prosperity of the business.

2.3.3.3. The Timor-Leste Strategic Development Plan

Timor became an independent country in the year 2002 after the 400 long years of struggle for freedom and working under colonisation along with 24 years of working status. The freedom achieved by Timor has been troublesome and brought the self-governing country to the verge of collapsing because of near-annihilation attributes made by the neighbouring country like Indonesia. As a result, the newly formed independent country faced issues related to reconstruction, resource management, poverty, illiteracy, and others. As a result, Timor-Leste “Strategic Development Plan” was drafted by the governing body in Timor in the year 2011 to make significant improvements in the country’s manufacturing and production sector so that these sectors will help to uplift the country’s fortunes and brings prosperous opportunities of growth and development in the country. The plan was envisioned for 24 years, and highly focused on the overview and implementation of the development plan to rehabilitate the dislocated individuals. It will also help in stabilising the political sector and develop the economy by initiating growth projects in the diverse economic and regional sectors. As a result, the country aims to become a middle-income country by the end of 2030 with the help of a healthy, literate, and safe populace that distributed in 13 districts and 67 sub-districts .

The governing body in Timor has identified that to make the country self-reliant, it is essential to develop the core infrastructural sector by making provision for water, power, telecommunications, and transport facilities. The transport sector includes the construction of roads, bridges, airports, and seaports so that the country will be able to establish communications and interactions with other nations. The strategic plan also includes the development of the social sector by making improvements in the healthcare sector, the educational industry, and training centres. On the other side, the economic condition of Timor strengthened by encouraging private sector investments, urban and rural development programs, promotion of tourism and other development activities. The country has also involved the development aspects regarding institutional set-up. Which also includes the development of the public service sector, establishment of legal, law, and justice system and development of defence as well as security aspects essential for the growth of the country .

As per Lundahl and Sjöholm (2008) , demonstrated that the governing body in Timor has emphasised that, it is essential to grow and develop the industries that belong to the oil and gas sector as it brings a positive shift in the economy and changes the country from an agricultural economy to industrial economy. The oil and gas sector is considered the essential sectors upon which the growth of the entire country depends. As it highly contributes towards the generation of income and enhancement of the economic growth of the country. For example, the oil and gas sector contributed 90% towards the total budget revenue and the earning reached USD 2.12 billion in the year 2008 from USD 135 million in the year 2004. It has also recorded a further increase that reached USD 2.46 billion in the year 2010. However, the high growth in the oil and gas sector has not provided much relief to human suffering as a limited amount of the earnings has been invested in economic development activities. Thus, the rest is stored in the Petroleum

Fund to utilize for the future development process. As per Austrade (2012), He examined the value of the Petroleum Fund that has reached USD 10.8 billion in the year 2012.

Besides, the La'o Hamutuk (2014) analyzed that the Petroleum Fund that has been established by the Timor Government needs to utilize wisely over the next 20 to 30 years to provide sustainable growth and development to the country. Hence, the capital accumulated in the fund must be utilized appropriately, so that it does not exhaust before the stipulated time; thus, not able to contribute to significant growth to the country as expected.

According to Sadachika Watanabe, (2015) coffee is regarded as the black gold or golden prince in the country Timor that has fetched immense revenue, name, and fame to the country. For example, “Avenida de Portugal” a coffee shop in Timor, is known for its coffee specialties and has served the tastes of noted visitors like “Crown Prince Haakon” of Norway and Princess “Fadzilah Lubabul Bolkiah” of Brunei. The elites have applauded the coffee and recommended opening a new branch of the coffee shop in their own country. Due to the immense popularity and demand of the coffee beans, the high-quality coffee beans exported at USD 5.70 to USD 10.58 for a 200-gram packet to clients from different countries, including Japan. Moreover, “Peace Winds” has promoted the coffee farmers in Timor immensely and encouraged farmers to produce and export coffee so that it can be sold to foreign markets by adopting fair trade product policy. As a result, coffee farmers were able to earn a decent income and build sustainable communities effectively.

Furthermore, Khamis, (2015) examined that the coffee industry has been significantly contributing towards the economic growth of the country and has increased the earnings of the country by exporting 12500 tons of coffee and supporting more than 50,000 families who have been engaged in growing coffee. As a result, due to the huge amount of contribution made by the

coffee sector, it has occupied an 80%-90% share in Timor-Leste's non-oil exports category. The coffee crop has become a major crop of the country; also, it has grown in five provinces such as Manufahi, Ermera, Aileu, Liquiçá, and Ainaro. The cash crops like coconut, cloves, cocoa, candlenut, black pepper, ginger, and hazelnut are also grown exclusively along with coffee to promote high growth in the form of exports. It is estimated that the share of the Timor coffee market is 0.2 in the global market and has occupied the major place of the largest organic coffee supplier in the world. The country also supplies other hybrid varieties like Robusta and Arabica, which are considered of high quality and demand in the foreign markets. Hence, the governing body in Timor is making plans to capitalize on the increasing growth opportunities that are provided by the coffee sector and have announced to rehabilitate 40,000 hectares of land for the intensive plantation of coffee by the year 2020. It will help to develop the coffee sector and provide it with a secure and safe position in the global market. As a result, Timor will become a niche producer of high-quality organic coffee beans and will enjoy a monopoly in the coffee market.

According to Reindl, (2019) to develop the coffee sector in Timor, the country has developed strategic partnerships with Starbucks so that Timor Fair Trade certified Starbucks would promote coffee in its different outlets. The country had been suffering from poor infrastructure and lacked basic resources to grow quality coffee products at global levels and therefore, developed fair-trade arrangements to bring constructive transformations in the poor societies. Moreover, the “United States Agency for International Development” (USAID) also came forward and provided immense growth opportunities to Timor by developing associations like “National Cooperative Business Association” (NCBA) that helped Timor to systemize its coffee sector by assisting 450 coffee farmers. The formation of “Cooperativa Café Timor” (CCT) took place,

which helped the country to become one of the largest coffee exporter countries with the help of more than 24,000 member farmers' contributions. Hence, by establishing partnerships and developing the coffee sector, Timor has positively expanded its coffee business and established a niche for itself in the global coffee market.

2.3.3.4. Timor-Leste in International Marketing Strategy

According to “da Silva, da Costa, & Paulo” (2015) . Timor-Leste is a developing country and has shown immense potential to grow in the export sector by increasing exports of oil and gas in the natural resources category and coffee, coconut, cacao, and other products in the agriculture sector. It has been estimated that the coffee farms contribute 75% towards economic growth and are majorly facing tough competition from other countries like Uganda, Brazil, Indonesia, Rwanda, and others. Hence, it is essential to introduce constructive policies that will help the country to grow and expand its presence in the global markets . For instance, the establishment of “Cooperative Café Timor” (CCT) done in collaboration with the “National Cooperative of Business Association of America” (NCBA) so that the coffee market in Timor will be fully developed and explored to the maximum levels. CCT has also helped in increasing global awareness towards the Timor coffee industry and promoted the Timor coffee market to several international buyers. As a result, the coffee sector in Timor has attracted foreign aids by different organisations like the “United Nations” (UN) mission which has been working as an interim member of the World Bank, “Food and Agriculture Organization” (FAO) .

The promotional activities by CCT have also attracted international organisations like the “International Monetary Fund” (IMF) to help the Timor coffee industry to grow and expand exponentially . It has also increased international as well as national trade propositions in Timor and encouraged the local investors to invest in the coffee industry. It helps the coffee industry to

avail the best services and facilities, which aid the farmers to grow rich and high-quality coffee products. Additionally, the coffee industry players have also established partnerships with international companies to develop a competitive stand in the overseas coffee market. All these efforts like collaboration, partnership, and promotion have developed the coffee market, and made it the largest source of exports in Timor as well as provided the households with adequate income to live a standard life.

Therefore, Kotler (2011) examined that Timor has legalised its export, and import policies to ensure that international trading activities, which were conducted as per the provisions summoned by the government regarding trade and commerce. Additionally, certification organisations like the “International Coffee Organization” (ICO) have also been set up by the governing body in Timor to ensure the quality of coffee products. It also sets standards for coffee prices to sell for local and global markets and enables the coffee producers to get reasonable prices for their quality products.

Besides, Barney (1991) analysed that the entrepreneurs in Timor must adopt marketing strategies like market entry strategy so that the company will be able to enter in the international market domains successfully. In this context, the entrepreneur must ensure to reduce the transaction cost, provide high quality, maintain risk aversion, and balance the input and output of resources to acquire profitable trading earnings. The entrepreneurs must plan their entry into the market as direct entrants or need per basis entrants. The direct entry suggests voluntary entry into the market and need per basis suggests entry because of the emergent need of the consumers. Along with the decision regarding entry in the market, it is also essential to make decisions regarding the implementation of a global marketing strategy for the entrepreneurs. The development of sound global marketing strategy will help to make plans for economies for the

scale of production and distribution, develop the brand image of the enterprise, reduce marketing cost, and bring uniformity in marketing practices.

As per Alexandrides (1971) , stated that entrepreneurs must also consider foreign market scenarios while making export decisions. The entrepreneurs in Timor majorly face difficulties like lack of learning about exports, absence of knowledge about export payment procedures, also issues in identifying international markets. Additionally, aspects like market distance, cultural differences, lingual barriers, and the absence of information distribution in global markets also hamper the international dealings of the entrepreneurs. Hence, it is essential to develop information mechanisms, modify price and promotion policies, increase governmental support, regulate foreign tariff policies to increase and expand international trade in Timor.

Furthermore, Best (2014) suggested that the entrepreneurs in Timor must also adopt marketing mix strategies so that the selling of products will be executed to the right customers at the right place at the right price. Additionally, Hollensen, (2014) examined that the entrepreneurs must adopt a pricing strategy that forms an integral part of the marketing mix strategy so that the estimation of the price of the coffee product is ascertained as per the internal situation of the firm and the actual market condition. It must also involve other factors like production cost, market prices, payment systems, packaging, current competitive situation, and others.

Also, as per Thirkell and Dau (1998) stated that the entrepreneurs must adopt the promotion strategy so that the volume of sales and profits are managed as per the competition present in the market. It includes the adoption of advertising and promotional techniques like sale promotion, individual selling, group visits, trade fairs, digital media, social networking, direct selling, and others. The use of promotional techniques like the taste, and distribution of free samples, mouth-

to-mouth advertising, sponsorship, community participation, and others will help the entrepreneurs to promote their coffee products effectively. Therefore, as per examined by Leonidou et al. (2002), product strategy also forms an essential part of the marketing strategy and mainly describes the product, design quality, differentiation, brand, and other factors. To promote coffee products at the international market, entrepreneurs need to understand the marketplace needs and raise the quality as well as the standard of their products accordingly. He further stated that the introduction of product differentiation and designing would help to promote coffee products to new markets at local and foreign levels. It will enhance the brand image and popularity of products among the masses.

Furthermore, Macneil (1980) analyzed that different channels of distribution strategy are also essential to be planned and developed by the entrepreneurs in Timor to promote and sell their coffee products to large volumes of consumers effectively. As per him, the entrepreneurs must develop a concise relationship with the intermediaries, retailers, and wholesalers to ensure the effective execution of the supply chain of the products. Besides, the adoption of different export modes like direct export, indirect export, and cooperative exports will also benefit the entrepreneurs to explore and expand new business ventures effectively.

2.3.4. Government Policy of Encouraging the Entrepreneur

Podolsky also examined the role of evolution, which identified as the major objective to develop and promote an effective ecosystem. It also includes different types of innovative skills, policies, and activities, which are flexible, dynamic, stimulating in nature, and enabling the environment. To focus on the ecosystem, it mainly focuses on creating value for the society and enhancing the

quality of life for the citizens to ensure the competitiveness of the organization. It also tried to develop effective intelligent interaction between several stakeholders such as company, local, regional, national authorities, or International system, Universities, and Research Organization.

2.3.5. The Political Context

The definition of that the best sets the stage for this review is from Cole (1968) : This fits wells with Kirzner's (1997) definition, which also focuses on the start-up: entrepreneurship is a discovery process involving the identification of profit opportunity and then acting upon it. Schumpeter (1942) views the entrepreneur as an agent of change. In the view of Audretsch (2004), the government's job is grounded of IV types of market failure: network externalities geography oncoming to complementary companies, talents externalities (abilities spillover), useless externalities, value made because of vile firm or individuals also stipulate corporations failure, and discipline externalities (drive and discipline out of the demonstration over entrepreneurial with the aid of others). In addressing such failures, Minniti (2008) summarises the discriminant of Baumol (1990) or North (1990) , indicating that the governments perform practice through institutions in imitation of aqueduct society's present entrepreneurial desire outdoors from undesirable recreation (e.g. iniquity) then towards greater suited things to do (e.g. organization advent then innovation).

2.3.6. Developing New Policies for Entrepreneurship

2.3.6.1. Ensuring the well-functioning market

The authority's method and regulations because it is related to the exercise of entrepreneurship are the goals at boosting entrepreneurship via way of means of growing beneficial enterprise

surroundings for young graduates. For example, the authorities of China have made focused efforts via sources and regulations at the increase of excessive era enterprises. Moreover, the Brazilian motion to inspire entrepreneurship has been installed very swiftly due to authorities' regulations objected toward organizing the low-era groups in addition to most technologically orientated small organizations. Besides, as consistent with the cutting-edge study, said that Saudi Arabia in 2010 formulated ten-year entrepreneurship boosting and innovation plan. The aim became an approach to place, Saudi Arabia, at an identical platform with extra-economic, aggressive nations internationally.

Similarly, the authorities' coverage on setting up and inspiring entrepreneurship in Timor-Leste is progressing this is proving easy to younger marketers to install their organizations and make contributions their percentage in the increase of financial system and GDP (Gross Domestic Product) of Timor. Since the year 1999, the Government of the U.S. has been striving to decorate the glide of capital and budget to new enterprise proprietors and permit them to perform their enterprise operations. In this view, the authorities brought a multi-agency “Joint Evaluation Mission” that became answerable for addressing and resolving problems just like the glide of products and services, bills systems, get right of entry to credit, foreign money exchange, procurement, and claims and deposits. The agency addressed the registration of businesses, interim leasing system issues, and banks allowed granting loans to young entrepreneurs to set up their businesses.

Moreover, in 2005, the government passed domestic and foreign investment laws that led to tax deductions of employment and provided duty and tax exemptions on the purchase of raw materials that were the major inputs to produce final goods. On the other hand, the government introduced a new policy that led to prohibiting bureaucracy and eliminated limited access to

credit, and increased certainty for the property laws. They also introduced a policy to reduce waiting times for loan processing, new business registrations and the government introduced a new Body “SERVE” to smoothen fast new business registration in Timor-Leste.

2.3.6.2. Competitive product market

Focusing on the competitive product market will include competition which helps the consumer to identify clearly what they want from an entrepreneur and it is also beneficial for the entrepreneur to receive feedback from the customer on how well they are performing.

2.3.6.3. Reducing the administrative burden and compliance costs

The paperwork and cost also help for establishing a new business, which is reduced at a minimum level.

2.3.7. Optimizing Programs and Policies to Foster Entrepreneurship

A Study has displayed an up to expectation program, yet policies aimed at compliance entrepreneurship cannot alternative for well-functioning markets and excellent frame conditions. However, administration programs, agreements properly designed are able to complement yet assist striking conditions. Local authorities are well equipped to promote free enterprise. Regarding the business environment improvement and attempt to investigate the coffee plantation in Timor-Leste, it has been identified that the activities involving both gender participation are essential to achieve the purpose. However, it has been identified that both men and women differ in the way they conduct the business and their outcomes.

Investigating the gender differences in the field of business for entrepreneurs, gender-based barriers have been identified. This involved the regulatory environment for women to be more difficult to register their business and obtain proper licenses and permits to reach their full

capacity and potential. The reason for differences has been investigated for which the findings reveal women to a higher rate of difficulty to enter a business. The cultural limitations are one of the reasons that debated to a question regarding the women's ability to travel, preventing them, for business registration. Besides, as the domestic responsibilities are attached to the women, they tend to be limited to appearing for the registration process. With such a gender lens associated with the business regulation reform, the interventions have focused on supporting both men and women to gain benefits in the field of entrepreneurship.

According to the study, the trends of women's entrepreneurship have been changing globally. Thus, concerning the context of job creation and economic growth, it has been estimated that women represent 30% of registered businesses worldwide. However, only 5 to 10% of the women-owned businesses have access to commercial bank loans. This difference has been investigated to understand the factors that affect the growth of entrepreneurs in Timor. Thus, concerning the findings, it revealed that the private sector development of business has been negatively affected due to the lack of financial access for entrepreneurs. Besides, as the pieces of evidence suggest that the women often pay back the loan at a higher rate the women are regarded as the loyal customers of the bank and for the businesses meeting targets, potential, and capabilities at a more significant rate. Thus, considering the impact that the financial unavailability has the impact of opportunities provided to women in Timor analyzed by the overall affecting progress, productivity, efficiency in supplying products, and creating job opportunities in the society.

Understanding this difference allows identifying the challenges on which government must work to promote “women and men entrepreneurs in Timor-Leste”. This will emphasize increasing economic competitiveness and social inclusion for the removal of the barriers that affect the

entrepreneurs to progress in the economy. Also, as the need for a business environment has been identified for active private sector expansion, the growth of MSMEs, conducive to entrepreneurship, and the formal creation of the opportunities have been explored. As the cost of doing business for small firms is higher, women in the business have been found to be more concentrated as compared to men operating with limited economies of scale. Thus, for the formalisation of the business, access to finance and other types of support is essential to help small businesses to grow at a larger scale.

About the business registration the “Government of Timor-Leste” in 2013 established “Service for Registration and Verification of Entrepreneurs” (SERVE) “One-stop shop”. This initiative helped to coordinate with the administration of the Ministry of Justice, Ministry of Finance, and State Secretary for Support and Promotion of the Private Sector (SEAPRI), Industry and Environment, and the Ministry of Commerce. Besides, as the government has been playing a significant role in Timor the commercial license, and “Tax Identification Number” (TIN) has emphasized introducing and engaging an environment for business licensing. With SERVE Shop, the startup process for businesses has also made it easier and more convenient to develop business operators, creating growth opportunities for entrepreneurs.

Access to information, education, and entrepreneurship skill enhance enhancement to understand and work on assessing the coffee industry in Timor, the requirement of the managerial competencies explored to investigate the increase in firm productivity. Regarding entrepreneurial skills, access to education and information plays a crucial role for men and women entrepreneurs requiring competencies to run the business. For the developing countries like Timor-Leste, it has been identified that women have been found to be less educated due to a lack of opportunities. This discrimination among the gender further impacts the entrepreneurial

field as in the rural areas the women and girls lack access to tertiary and secondary education. Besides, as the illiteracy rate in rural areas is high, the region involves unavailability get access to formal and informal training. Therefore, in Timor-Leste unwillingness to invest in education is also identified as a barrier limiting the enhancement of entrepreneurial skills.

Furthermore, with high restrictions for access to information technology and innovation, the lack of employment and business opportunities is also revealed. Thus, to develop professional experience and business acumen, access to information is considered an essential step to start, run, and expand the business. Timorese people has been stated that only 20% of the population owns radio followed by only a few of them have a television. Thus, in this case, access to new ideas is limited to working on an idea to manage to create an opportunity and need in the market.

It has been acknowledged that for the marketplace, the business support services are required to work on the weaknesses identified. Thus, as part of the process, the training requiring theoretical aspects and development of the need emphasised. Concerning the business information and training; however, it revealed that the area lacked a proper systematic way to access the business information until 2010. Therefore, to emphasise upon the development of entrepreneurial development the introduction of the “Institute for Business Support (IADE)”, had focused on catering to entrepreneurial skills. For the gap to be eliminated for both genders the institution worked with “State Secretary for Support and Promotion of the Private Sector of Timor-Leste or SEAPRI” to promote the “professionalism of micro, small and medium-sized enterprises”.

Besides, as the institution emphasized upon the creation of an effective business environment with opportunities the network of “Business Development Centers” (“CDE”) had

established with business courses to improve management, entrepreneurial skills, and business formation, these steps benefitted through a counseling program, with such an attempt the services offered, focused upon the identification of a business opportunity, creation of an idea for a business, facilitation of the process for business, creating provision for the technical assistance, and work on participative measures with the public tenders.

The IADE approach not only works on catering to the needs of the individual who lacked access to information and opportunity but also helped encourage both the genders to work with useful information for entrepreneurs (i.e. formulation of business, preparation of documents for the loan application, expanding the business through proper research).

2.3.8. Entrepreneurship Education and Training

One subset of the big portfolio over entrepreneurial marketing and marketing applications includes entrepreneurship preparation or entrepreneurship coaching programs. These applications supplicate imitation of strengthening the attitudes, knowledge, and benefit associated with the item of entrepreneurship. They based totally over studies indicating partial entrepreneurial behaviors do teach, learned, and starting inside people's children after culminating to more youthful or person-years, additionally to cause them to sturdy earlier than practicing entrepreneurs. Despite global activity into Entrepreneurship instructions and Training, the body on reachable research remains limited. However, EET is a growing location concerning interest for a number of researchers, then embark approximately present-day evaluations famous combined however promising outcome. Further complicating the photo concerning "Entrepreneurship Education Training" usefulness is the truth as much as expectation nearly,

Entrepreneurship trainer Training permanency opinions have a have a take a observe a period on outcomes

For example, the latest meta-analysis by McKenzie then Woodruff (2012) , Demonstrates pretty affordable impacts of schooling over the entrepreneurship of modern firms, however little impacts associated with earnings or sales, shows that, even as packages can enhance know-how, this doesn't always suggest propulsion after related fantastic elements amongst overall performance or reputational outcomes.

A meta-analysis by using Cho and Honorati (2013) The affiliation inside entrepreneurship field or schooling due to flourishing entrepreneurial know-how has to end up a location over hobby due to the fact meta-evaluation via way of means of scleral students offers greater weight in imitation of the affair concerning Entrepreneurship Education Training programs.

Thus, in conformity with trainee's entrepreneurial functions (know-how or skills) thru dropping mild concerns numerous functions of this type also can subsequently make contributions to better entrepreneurial overall performance. A meta-analysis conducted by Unger or others (2011) finds an extensive high-quality alliance among success (size, profitability, or growth, and the sole investment into ethnic headquarters development .

Furthermore, as in line with the study, the exquisite effects on prosperity concerning the knowledge, and capabilities ensuing except those investments are too more than the investments unaided and improved. However, for talents and advantages especially associated to entrepreneurship .

Box 1.1. The OECD Jobs Strategy

1. The setting macroeconomic policy that help to increase growth and implement good structural policy at a sustainable level
 2. To enhance the creation of Technology and improving the framework and ensure its development
 3. to increase flexible work time for workers and employees
 4. Maintaining effective interpersonal climate by eliminating all the restrictions and creation and expansion the business organization in a positive manner
 5. To adopt flexible Wage and labour cost strategy by removing restriction as per the individual skill level
 6. To adopt employment security provision and policies by expansion the employment opportunity in the private sector
 7. to strengthening the active labour market policies and in force effectiveness
 8. Highly focus on improving labour skills and competencies by providing wide Rapid changes in education and training systems.
 9. Reform unemployment and associated gain systems – or their interactions with the difficulty dictation – such so societies’ integral fairness dreams accomplished in ways up to expectation impinge a long way much less regarding the efficient functioning about labour markets.
 10. Enhance product needs, opposition and as much in conformity to minimize monopolistic tendencies and weaken insider-outsider mechanisms whilst additionally contributing according to a more innovative or strong economy. _____
- Source: OECD, 1997b.

Figure 2.3.1. Box 1.1

Source : Author

Another meta-analysis by Martin et al., (2013) shows large relationships among Entrepreneurship Education and Training, entrepreneurship-associated ethnic town assets (entrepreneurial skills then skill, best belief regarding entrepreneurship, and intentions following starting a business), then entrepreneurship results (nascent behaviours, start-up behaviours, and pecuniary success). They similarly find differential results in academic-targeted then training-targeted Entrepreneurship Training toughness interventions, alongside with, can offer greater appropriate results associated collectively with the pristine kind of Entrepreneurship Education or Training .

Today Entrepreneurship schooling occupies a vital place inside presenting an unaccompanied collectively with entrepreneurship residences which encompass marketers collectively with self-hobby reliance, marketers focusing over consequences, marketers taking risks, main marketers, genuine marketers and marketers that specialize in the possibilities . In this context, entrepreneurship has such a lot of benefits inside financial or traditional development, that is not unusual place on a wide variety with a much wider view. Therefore, which can live an excellent concern for forming easy achievements concerning entrepreneurship like developing virtue. Thereby, it allows in generating prosperity, developing employment, thriving creativeness, innovation, and the creation of strong, in addition to a brand new business, company renewal organizational growth, and smoothing financial development, thoughtful improvement, and cultural improvement. Furthermore, as per Dastbaz, (2004) . He stated that such improvements, skillful, entrepreneur, and specialist force, are praiseworthy.

A significant role played by entrepreneurship knowledge is to lead entrepreneurs towards success. According to Makhbul (2011) expertise is one of the big predictors and elements of entrepreneurial success. Thus, re-assets of expertise vary, for example, private enjoy and casual and formal education. He, in addition, said that, if an entrepreneur has entrepreneurship expertise, it facilitates them in being modern and triggers novel thoughts that assist them to release possibilities growing from their environment. Therefore, particular and modern expertise is in particular treasured for entrepreneurs. According to Makhbul, the more diploma of forte averts expertise migration to different organisations, that is the maximum treasured expertise, which can't be transferred.

On the other hand, Solomon and Matlay (2008) analyzed the influence of entrepreneurship education on entrepreneurial outcomes. The researcher mainly aimed to analyze

the importance of knowledge of entrepreneurship on the success of an entrepreneur.

Furthermore, as per Solomon and Malay, they applied primary data collection methods and carried out the telephonic conversation for the ten years from 1997 to 2006 to assess the progression of the respondent from time of graduation to the success of their entrepreneurship. Their results of the study provided outcomes and found that the requirement of graduates for entrepreneurship education does not match with the real outcomes in perspective of entrepreneurial skills, attitudes, and knowledge. Therefore, this study found contradictory results in regards to the impact of entrepreneurial knowledge on entrepreneurial outcomes.

Furthermore, there are several major skills, knowledge, and strategies required by entrepreneurs to lead their businesses successfully. These skills and strategies include creativity, the capability to listen, assertiveness, confidence, and perseverance. The creativity skills can help the entrepreneurs to do something that has remained unmet by the existing manufactures or business owners that could be the most significant need of the current market. Moreover, the skill of capability to listen helps them to provide a great customer experience and service. They are specialized in feedback taking and convincing customers through their quick response against any customer query. This allows them to train their subordinates also on becoming successful listener and query handler, which enhance customer satisfaction .

Moreover, knowledge of perseverance prevents entrepreneurs from devastation, failures, and defeats. Through this skill, the entrepreneurs become able to calculate modifications to future efforts in terms of achieving success factors. Therefore, these arguments signify a significant role played by entrepreneurship knowledge to increase entrepreneurial outcomes and success. According to Ramona–Diana, (2017) , the educational institutes that are providing entrepreneurship education, and training mainly concentrate on defining the entrepreneurial traits

like ‘about’, ‘for’, and ‘through’, which are mostly supported in a traditional educational format. The educational institutions are dedicated to delivering learning regarding entrepreneurship based on theoretical aspects and conventional knowledge.

It provides learning about what entrepreneurship is and what are the attributes that are necessary to attain by an individual to become an entrepreneur. It also provides information about the behavioral aspects of an entrepreneur, also how a person should behave within an organisational setting. The educational institutions also develop the cognitive competencies of the students by using process-based and learner-centric educational techniques so that theoretical concepts are mixed with practical approaches to develop entrepreneurial skills among the learners. The educational organisations also include experiential learning and teaching practices so that the non-cognitive entrepreneurial skills of the learners also developed along with the cognitive entrepreneurial skills.

According to Ahmad (2015) . He stated in his study that the current education system is entirely different from the previous traditional educational system and uses a more mechanistic approach to motivate and develop entrepreneurial behavior. It majorly includes active learning practices like role models, problem-solving, group activity, case studies, fieldwork, and simulations. Moreover, as per Ahmad (2015) , cultural diversifications have also been taken into account while imparting learning about entrepreneurial skills development. Cultural diversity mainly includes differentiated beliefs, values, behavior, roles, and attitudes and signifies how differently the individuals think, act, or respond to specific situations. Hence, it is essential to include aspects like power distance, individualism or collectivism, gender, uncertainty avoidance, and other factors into consideration while providing entrepreneurial skill development.

Additionally, Leon (2015), examined that power distance (PD) is increasingly associated with the ability of individuals to accept or reject the authority distribution procedure in the community. It describes the perception and status-seeking attitude of the individual in the formal and informal environment so that there is a clear differentiation between the authoritative people and subordinates. If there is a high presence of PD in the community, there will be a clear disposition and differentiation between the activities of the charge holders and the followers, whereas, in the case of “low power distance” there is no differentiation between the individual competencies and the community standards. In the context of educational parameters, the individuals who have been born and brought up in the high power distance environment are expected to become real traders as they are well learned in accomplishing things in place of thinking how to start or initiate the project.

Hofstede (2001) analyzed that individualism or collectivism and gender play a primary in the provision of entrepreneurial talent education to people. To make recognition of individualism, in this environment, the point of interest is given to the improvement of the oral communicate competencies of the novices wherein a person speaks and gives himself/herself. In this environment, the person is only answerable for the conduction of entrepreneurship interest, its final results, and his/her destiny. While in collectivism, all of the painting duties allotted among the members and every person is answerable for his/her part. In this set-up, the collaborating people furnished a complete guide and steering to perform the task. Hofstede in addition defined that the final results of the enterprise interest or challenge is a collective responsibility, and every player stocks its fulfillment or failure equally.

Additionally, while considering the gender aspect, the male and female both consider two determinants while making decisions, which are professional commitments and personal

aspirations. For example, in the case of the professional dimension, the individuals mainly focus on material possessions and organizational success while in personal achievement, individuals consider the spiritual, and personal relationship attributes. All these factors highly affect the personal as well as professional traits of the individual and inspire them to become successful entrepreneurs in the future.

Additionally, long and short-term orientation measures are also involved in the development of entrepreneurship skills as they consider the time and connection perspectives of the individuals. The individuals who belong to the long-term inclined culturally connected environment majorly prefer to work hard. They are highly rooted in the grounds and make sacrificial decisions in the present conditions to reap future benefits. On the other hand, the individuals who belong to the short-term cultural orientation majorly follow the here and now attitude. Hence, the individuals mainly focus on the present situation outcomes and take decisions as per the current scenarios.

2.3.9. Conceptual Framework for Entrepreneurship Education and Training

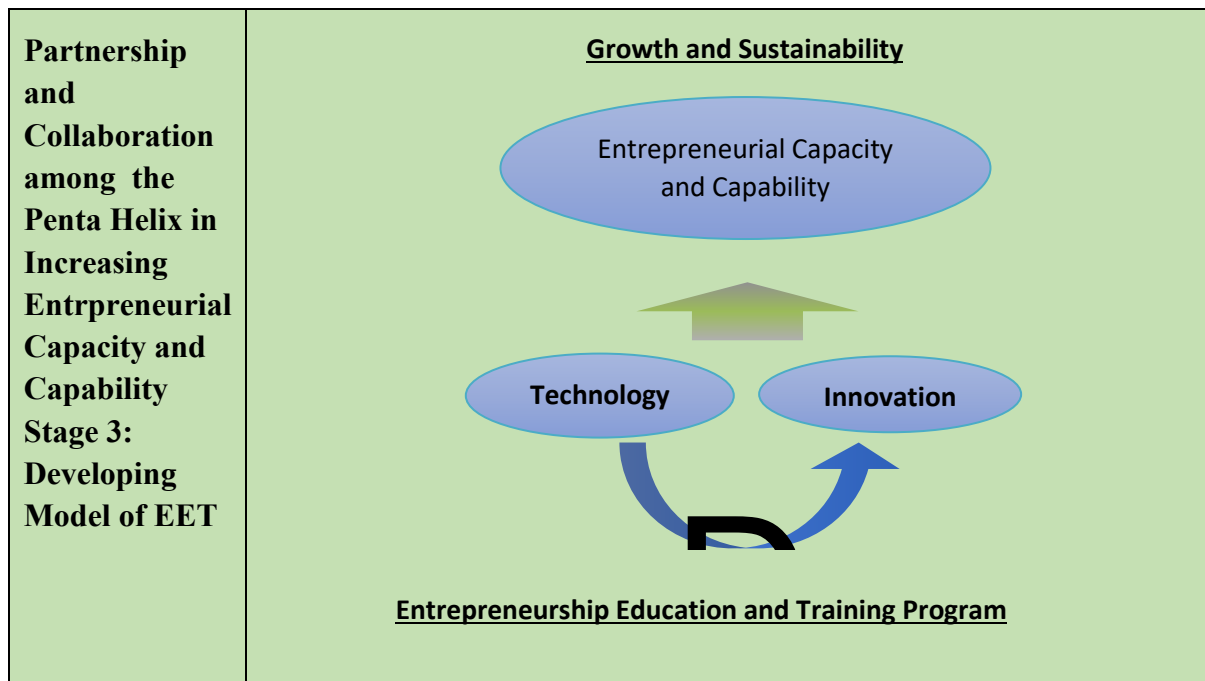
Given the diversity about the software or extensive extent about economic conditions below by which this application operates, a skeleton is ancient up to expectation while having an extra structured then centred experiment regarding the entrepreneurial education than training (EET) programs. It also experiments with the type of outdoors outcomes, which are relevant in conformity with its countries. The skeleton described below, formerly added to a world of learning regarding the entrepreneurship discipline, and training application.

A quantity concerning international, regional, national, and provincial actors is the responsive part within the world scan concerning EET. Today, EET identified an established discipline for the study. Therefore, growing between comparison, including the interest regarding policy-makers and college students.

2.3.10. Proposed Conceptual Research Framework

A review of the theoretical and conceptual frameworks has demonstrated that there is a clear need for further empirical testing to identify the impact of entrepreneurship education and training on entrepreneurial skills, especially in the context of a developing industry of the country. Unlike the previous study, the present literature provides more recent and empirical-based approaches to develop strategies for developing entrepreneurial skills. More importantly, the literature seeks to recognize how universities in developing countries can be decisive for promoting entrepreneurship. From a theoretical perspective, the research conveys a comprehensive understanding of the entrepreneurship themes and theories.

Based on a review of relevant studies of previous conceptual frameworks, this study develop a new conceptual research framework that is fit to the entrepreneurial ecosystem in the coffee industry in Timor-Leste. Figure 2.3.10 shows the proposed conceptual research framework. This framework consists of three stages level of analysis.



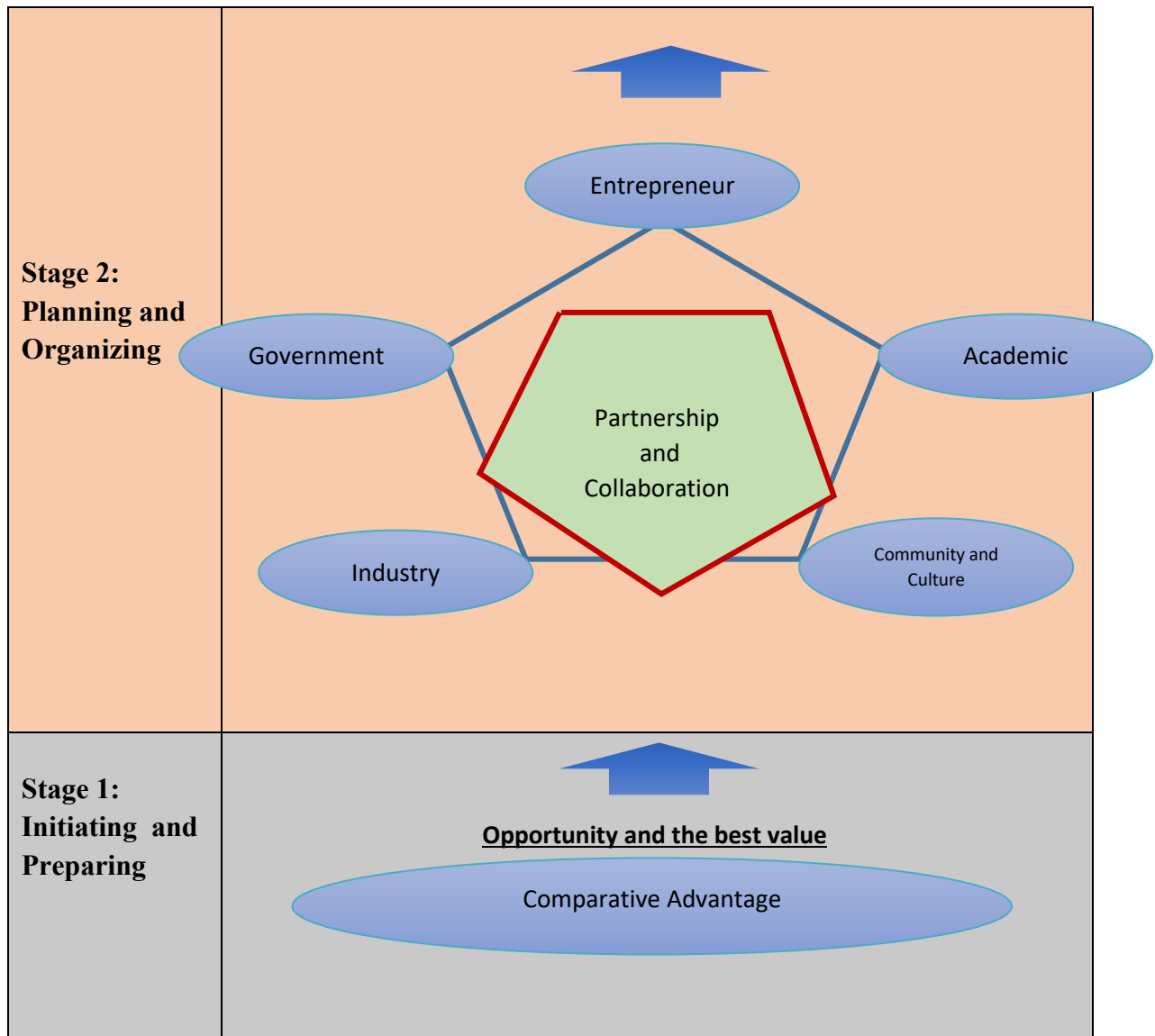


Figure 2.3.10 Proposed Conceptual Research Framework

Source: Authors

Stage 1: Initiating and Preparing Work and Mechanism of Penta Helix Model

The first stage 1 is initiating and preparing work and mechanism of the Pentahelix model in the context of the entrepreneurship ecosystem in the coffee industry in Timor-Leste. This stage will search and find opportunities and potential value of the coffee industry in Timor-Leste. At stage 1, this study will take two steps of analysis. The first step will analyze non-oil and gas

commodities in the National Timor-Leste industries. This step will identify the big five commodities that have a significant contribution to export and national economic growth and social welfare. At this level, comparative advantage among commodities will be identified and evaluated as a preliminary step. It will explore the contribution of the coffee industry in economic growth in Timor-Leste. The second step will analyze the coffee industry at the international level, it will compare fundamental economics among ASEAN countries, and also compare advantages in the coffee industry among those countries. This stage will explore the opportunity and potential value of the coffee industry in order to scale up entrepreneurial capacity and capability in the downstream coffee industry subsector, which in turn will lead to increased productivity in the upstream coffee industry subsector.



Figure 2.3.10.1 Stage 1

Stage 2: Planning and Organising Work and Mechanism of Penta Helix Model

Stage 2 is planning and organizing work and mechanism of the Pentahelix model in the context of the entrepreneurship ecosystem in the coffee industry in Timor-Leste. This stage has four steps. The first step will identify the main participants and their roles in improving growth of the coffee commodity industry sector in Timor-Leste. This step attempts to identify main actors in the entrepreneurship ecosystem in the context of Pentahelix framework model, including:

1. Entrepreneurs
2. Government
3. Business people in coffee industry
4. Academic
5. Officer at Non-Government office.

Once the main actors have been identified, the next step in this stage is to identify the fit type of partnership and collaboration among Pentahelix parties. The second step concerns how to develop the Pentahelix model that can accelerate entrepreneurial innovation in increasing their capacities and capabilities. This step will explore and search for types of partnership and collaboration among participants that are suitable for the entrepreneurship ecosystem to lead increasing entrepreneurial capacity and capabilities, especially in the coffee industry sector in Timor-Leste.

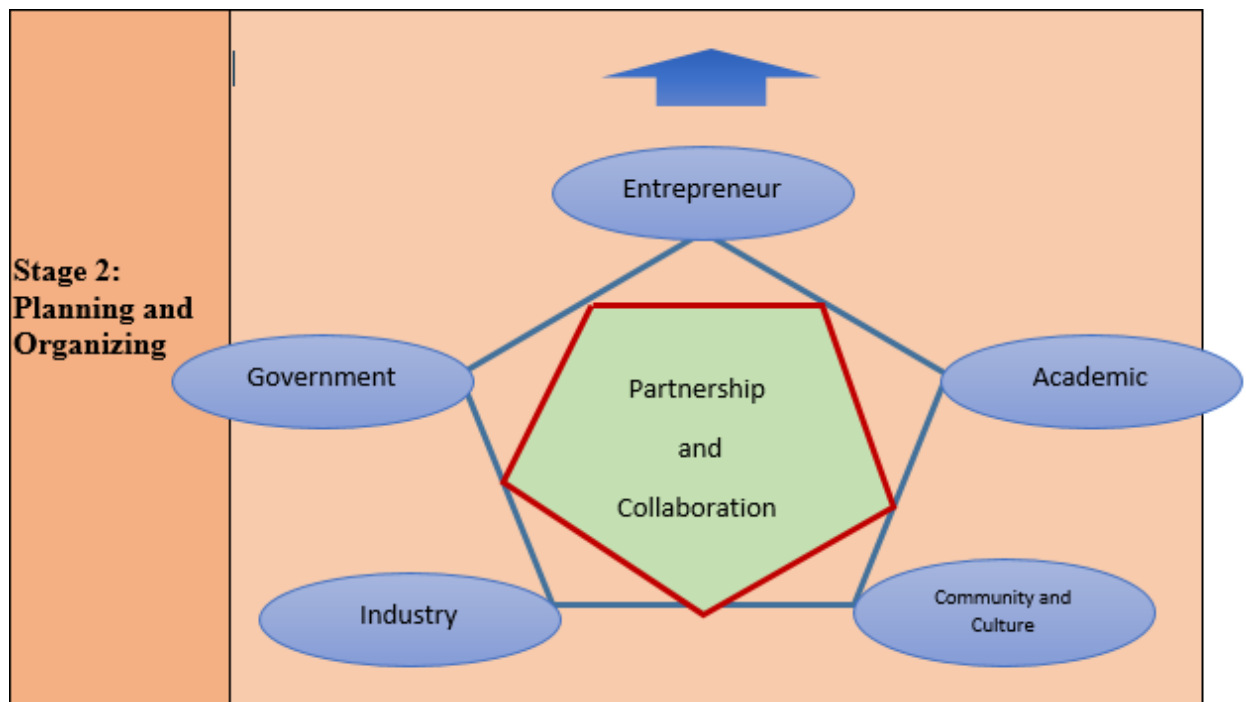


Figure 2.3.10.2 Stage 2.

Stage 3: Developing Model of EET

stage 3 implementing and evaluating work and mechanism of the Pentahelix model in the context of the entrepreneurship ecosystem in the coffee industry in Timor-Leste. Regarding the conceptual framework of EET, This stage will propose a new model of EET. The model will explain the fit mechanism to increase entrepreneurial capacity and capability in an integrated ecosystem of entrepreneurship education and training programs. This model is concern with the role of Pentahelix parties, technology adoption, partnership, and collaboration to accelerate the achievement of the objectives of increasing entrepreneurial capacity and capability.

The third step will explore, evaluate, and identify critical factors that are essential for the Pentahelix model to accelerate innovation in increasing entrepreneurial capacity and capabilities. There are six main factors that are relevant to these issues, those are an internal factor, ability factor, business profile, external factor, PESTLE analysis, prospect, and obstacle.

The final step in this stage is to propose an integrative program of entrepreneurship education in the context of the entrepreneurship ecosystem. This step develops how to integrate the work and activities of the main actors in the entrepreneurship ecosystem. Previous studies concern Entrepreneurship Education and Training (EET) to increase entrepreneurial capacity and capability. This step will encourage Pentahelix parties in the entrepreneurship ecosystem to develop a prototype model of the Integrative Entrepreneurship Education Program

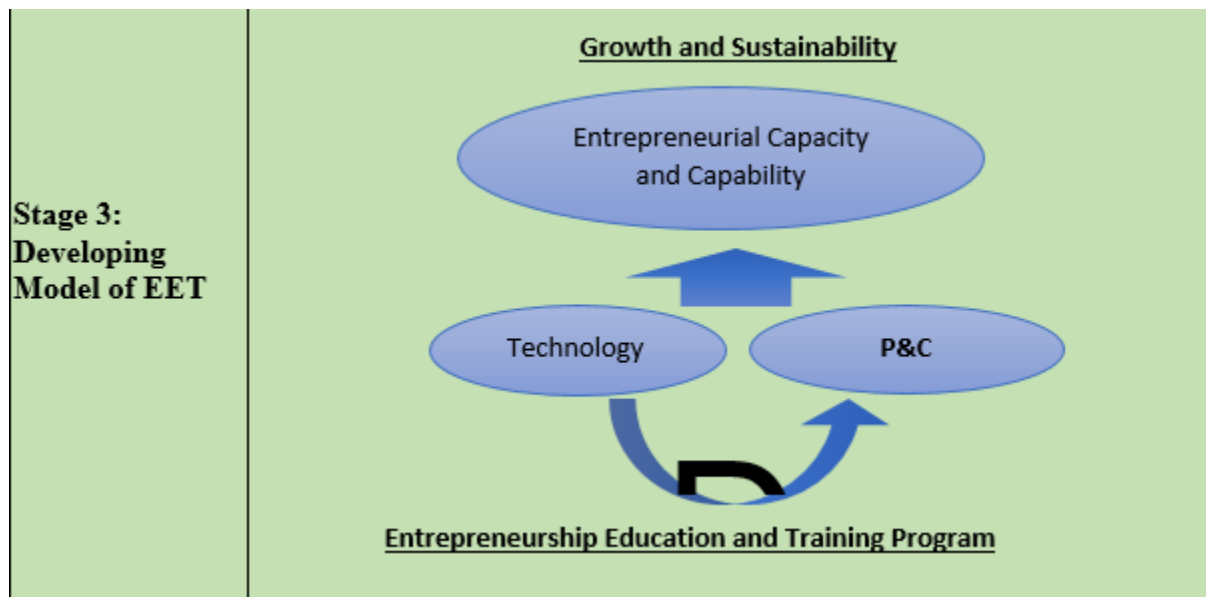


Figure 2.3.10.3 Stage 3

Source : Author work

After the three stages are passed, it is hoped that Timor Leste can have a stable entrepreneurial ecosystem that can support coffee production and improve the quality of the coffee produced so that it is able to penetrate the global market, so it is necessary to conduct further research to understand the impact or effects produced in Pentahelix. in Timor Leste, did it have a significant impact? Or stag at a certain stage

CHAPTER 3

RESEARCH METHODOLOGY

This chapter will discuss the most appropriate research methodology that can be adapted to answer the research question. This chapter will also discuss (i) the methods of data collection, such as primary and secondary data collection techniques, and data coding; (ii) selecting informants based on profiles, characteristics, and source of classification; (iii) developing instruments with open questions as interview guidance; and (iv) data analysis techniques.

According to Peffers, Tuunanen, Rothenberger, & Chatterjee (2007), research methodology can be explained as a process in which different types of tools and instruments are used to gather relevant information which can help the researchers to examine various facts and figures which are associated with the research questions. In addition, research methodology is a process that helps the researchers to find adequate ways to gather the most appropriate information and the most appropriate technique to analyze the collected information ethically. In addition, discussing different techniques of collecting relevant data and information, it can be observed that there are different research principles, approaches, and philosophies that allow the researchers to make the right decisions regarding the collection of data and analyzing information related to the specific topic of interest.

3.1 Research Design

Research design enables the researchers to have a brief description of the information which should be gathered and that can help the researchers to get most appropriate answers to the research questions. According to research objectives, research design can be considered as a blueprint for research that enables the researchers to examine all the factors which can impact the reliability of the research outcomes. Taylor, Bogdan, & DeVault (2015) stated that employing statistical analysis can help the researchers to get the most appropriate, accurate, and real facts related to the research objectives. Therefore it can be stated that research methodology involves a complex mixture of different norms as well as practices that significantly help the researchers to find the most suitable results.

Qualitative data analysis --- with the primary research design --- helps the researchers to have an in-depth analysis of most of the facts and figures which are associated with the research objectives. Therefore, the proposed study will employ a qualitative research method which will help the researcher to form methodological strategies for the development of the entrepreneurial capacity and capability in the coffee industry sector in Timor-Leste. With the help of primary research design, the researchers can gather the most recent information related to research objectives. It can be time-consuming and costly but the probability of getting the most relevant and appropriate information in the case of primary research design is high. Moreover, the use of primary research methods involves the collection of raw data which can be effectively utilized by the researcher to get the most reliable and valid outcomes from the research.

According to the Conceptual Research Framework in figure 2.3.10, the design of this research consists of three stages of analysis. The research design for each stage will be based on

qualitative methods. The proposed study will employ the descriptive research design in which the researcher will gather relevant information and data by asking open-ended questions from the targeted population. Moreover, the study will also gather relevant information from already published articles and journals which will enable the researcher to have an in-depth analysis of different theories that are already published by different authors. Besides collecting data from already published journals, articles study will also collect primary data. Moreover, different magazines, books, e-books, and social websites will also be analyzed to gather relevant information regarding the factors that affect the development of the entrepreneurial ecosystem in the coffee industry sector. However, in order to analyze the profile and background of the coffee industry sector in Timor-Leste, the study will use a secondary research approach, and relevant information will be gained by the research articles that have discussed the entrepreneurial ecosystem in the coffee sector in Timor-Leste.

3.2 Research Approach

Research approach can be defined as a method that enables the researchers to gather, analyze as well as interpret the data in the most precise and comprehensive way. Moreover, it helps the researchers to have an understanding of the research problem as well as the process that can be employed by the researchers to address the research problem and to achieve the research objectives. Furthermore, it has been stated by Shannon-Baker (2016) that the research approach enables the researcher to make an effective decision and develop a plan to answer the research question. Table 3.1 shows the research approach of this study. According to the conceptual research framework, the research approach of this study will take two stages level of analysis.

The first stage will employ an observation and documentation approach, while the second stage will adopt a case study research approach.

The first stage is an observation and documentation of initiating and preparing work and mechanism of Pentahelix model in the context of the entrepreneurship ecosystem in the coffee industry in Timor-Leste. This study will adopt comparative advantage to evaluate and identify opportunities to explore the potential value of the coffee industry in Timor-Leste, especially in downstream subsectors. This case will identify the domain entrepreneurial ecosystem in the coffee industry in Timor-Leste based on Isenberg's framework (Isenberg, 2011). While the step in mapping the entrepreneurial ecosystem will follow the procedure provided by Kreuzer & Weber (2018).

Table 3.1. Research stages and Approaches

Stage	Research Approach	Description
1. Initiating and preparing	Observation and documentation	<ol style="list-style-type: none"> 1. Evaluate comparative advantage of coffee industry 2. Explore the opportunity and potential value of coffee industry in Timor-Leste

<p>2. Planning and Organising</p>	<p>Case Study</p>	<ol style="list-style-type: none"> 1. General mapping domain of entrepreneurial ecosystem in the coffee industry in Timor-Leste. 2. Identify main actors in the entrepreneurship ecosystem of coffee industry in Timor-Leste. 3. Evaluate the fit type of partnership and collaboration among Pentahelix parties. 4. Analyse and evaluate the critical factors that are essential for the Pentahelix model to accelerate innovation in increasing entrepreneurial capacity and capabilities 5. Develop a prototype program of the Pentahelix model to plan and organise entrepreneurship education programs and activities in the entrepreneurship ecosystem.
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The second stage is a case study in planning and organising work and mechanism of Pentahelix model in the context of the entrepreneurship ecosystem in the coffee industry in Timor-Leste.

Once the mapping entrepreneurial ecosystem has been completed, the second stage will identify the main actors and the role of each actor in the entrepreneurial ecosystem. This stage will search and find the fit type of partnership and collaboration among Pentahelix parties in the entrepreneurship ecosystem. This stage plans to develop an integrative program prototype to plan and organize how they should interact and connect among others in the Pentahelix model. The program will develop a model of entrepreneurial education and training program in the context of the entrepreneurship ecosystem.

3.3 Data Sources and Data Collection Techniques

The data collection method is one of the important parts of research because the outcomes of the research, as well as the validity of the outcome, are based on the data as well as information, which has been collected to answer the research questions. In other words, it can be stated that data collection is an integral part of the research methodology. By employing effective data collection techniques, the researcher can collect information related to the relevant facts and figures by using different data collection tools such as surveys, observation, and experiments. However, data can be collected by using two different methods that are primary and secondary methods of data collection. The selection of the data collection method depends on the nature of characteristics and features of the information, which can help the researchers to answer the research questions (Marczyk, DeMatteo & Festinger, 2005). This research uses secondary and primary data sources. Table 3.2 shows data sources and data collection techniques that will be used in this study.

Table 3.2. Source and Collection Techniques of Data

Stage	Data Source	Description	Data Collection Techniques
1. Initiating and preparing	<p>Secondary data:</p> <ul style="list-style-type: none"> a. Statistic Bureau, b. Finance Ministry, c. Industry and trade ministry, d. Infrastructure ministry, and e. Higher Education ministry. f. Magazine, News paper, Previous studies, International data providers/agencies 	<ul style="list-style-type: none"> a. Export non oil and gas commodities, the top five commodities, including coffee industry sector. b. Production of top five commodities c. Number of large companies and SME for each top five commodities d. Demographics, Manpower, employment, and unemployment e. More detailed 	<ul style="list-style-type: none"> a. Online and offline data documentation b. Meta data c. Observation

		data in the coffee industry.	
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2. Planning and Organising	<p>Primary data with specific informants who representative as:</p> <ol style="list-style-type: none"> 1. Entrepreneurs (3 to 5 persons) 2. Government ministry representatives who hold authority at strategic decision position level in: (i) Finance, (ii) Manufacture and trade, (iii) Higher education, (iv) Agriculture, and (v) Infrastructure. 3. Business people in Coffee industry (upstream and downstream) – (i) Association, (ii) Farmers, (iii) Coffee shop entrepreneurs, (iv) Traders, (v) Manufacturer, and (vi) exporter, who hold authority at strategic decision position level. 	<ol style="list-style-type: none"> 1. Internal factors 2. Ability factors 3. Business profiles 4. External factors 5. PESTLE factors (Politic, economic, social, technology, legal, and environment) 6. Prospect and obstacle 	a. Interview
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	<p>4. Academics at universities who are experts in management and organisation, coffee agriculture, economics and business.</p> <p>5. Person who work at community (non-government organisation) which hold authority at strategic decision position level</p>		
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By using data collection techniques as described in tables 3.1 and 3.2. used with the aim of collecting data with a fairly high validity, besides that this data collection technique was chosen because by using this technique, the resource person will be able to more freely share information and the information has been outlined in a structured manner so that the data can be reflected clearly in chapter 4 and so on.

3.4. Variables and Instruments

3.4.1. Variables in the Stage 1

Stage 1 attempt to describe the comparative advantage of the big five non-oil and gas industries in Timor-Leste which supports economic growth and social welfare. This stage provides preliminary data to evaluate the opportunity and potential value of the commodity industry in Timor-Leste, especially in exploring the coffee industry sector, including raw data about the entrepreneurship ecosystem in the coffee industry. As shown in Table 3.2, the research variables required at Stage 1 are follow:

- a. The level of production of the coffee industry and 3 leading commodities in Timor-Leste
- b. The export value of the coffee industry and 4 other commodities in Timor-Leste
- c. Number of large companies and SMEs in Timor-Leste
- d. The number of large companies and SMEs in the coffee industry sector in Timor-Leste

- e. Number of workforce and unemployment by demographics
- f. Number of NGOs that are concerned about the coffee industry
- g. Number coffee shop
- h. Number farmers and bank land for coffee agriculture
- i. The number of coffee manufacturers
- j. The number of the coffee traders and or agencies
- k. Number universities that have center or concern on the coffee industry

Research variables that required above is mentioned to be parties who have an impact and take part in the development of the coffee industry in Timor Leste, so that the sources will be clearly limited and the information obtained will be more valid, screening of sources in stage 1 has also made the data become more structured and systematic because if each of the parties mentioned above fails in carrying out their roles, the quality and quantity of coffee production in Timor Leste will decline, and this has been explained in chapter 2, where there is a lack of government effort and lack of collaboration from the five parties. in the Pentahelix caused Timor coffee to become less well known in the eyes of the world.

3.4.2. Instruments in Stage 2

stage 2 concerned further analysis to identify the domain of the entrepreneurship ecosystem.

Table 3.3. provides coding instruments category, keywords, and description of each category as guidance for an interview with informants at Stage 2. There are 6 codes of instrument categories, those are an internal factor, ability factor, business profile, external factor, PESTLE analysis, prospect, and obstacle. These instrument categories are very important to describe the readiness

of the entrepreneurial ecosystem in supporting the acceleration of innovation of products and services in the coffee industry in Timor-Leste.

Table 3.3. Coding Instrument Categories for Entrepreneurs^{*)}

No	Code		Keywords and Description
	Category	Sub-Category	
1.	Internal Factor	Motivation	What factors motivated you to open a coffee shop (exporter) business?
		Interest	What made you interested in entrepreneurship in the coffee business?
		Concern	What factors are the main considerations for entrepreneurship in a coffee business?
		Goal	What is your goal in becoming a coffee entrepreneur?
2.	Ability Factor (Knowledge and skill acquisition)	Experience as owner	How long have you experienced managing this business?
		Formal education	Is there any relevance of education to the business sector?

		Apprentice, Internship	Is there any internship experience in this business?
		Training and workshop	Have you received any training / workshops related to the skills needed in this business field?
		Self-learning	Are there any special / unique skills that are acquired in this business?
		Work employee experience	Have you worked in the same business elsewhere?
		Additional factors that be needed to improve capability	What forms of skills do you expect to improve your abilities / capabilities?
3.	Business Profile	Firm age and history (founder)	How long has this business been established?
		Asset size based on sales, total assets,	How much is the company's assets? Turnover / sales?
		Number of employees	How many workers? (Fixed, not fixed)?
		Ownership structure	What is the ownership structure of this business? Partnership or alone? If it is a partnership, what is the proportion of ownership? What is the form of partnership and the profit-sharing pattern?

		Source of fund	What is the form of funding for this business? Where do the funds come from: equity and debt? What is the proportion of debt to equity or assets?
		Additional factors that be needed to improve capacity	What form of support or capital do you expect to increase the capacity of your business or scale?
		Sales/revenue trend	What are the sales trends in the last 3-5 years? (rise, fall, steady, sharp or gentle?)
		Profitability trend	What is the trend of profitability in the last 3-5 years? (rise, fall, steady, sharp or gentle?)
		Cost component	What is the biggest cost component?
		Legal status of entity	What is the legal status of this business? CV, PT, individual, home industry?
4.	External Factor	Supply chain and network	<p>How is your business relationship with suppliers?</p> <p>How is your business bargaining power with suppliers? Are there multiple supplier selections? Smooth supply? The stability of supply quality standards? What is your role, willingness and contribution to work with them?</p>

		Government	What is the role of the government in supporting this effort? Which department do you think has the most role? How is their current role / have their roles been felt? What is the role to play? What's your suggestion? What is your role, willingness and contribution to work with them?
		Community (NGO) and culture	What is the role of NGOs in supporting this effort? Which NGOs do you think have the most role? How is their current role / have their roles been felt? What is the role to play? What's your suggestion? What is your role, willingness and contribution to work with them?
		Academics	What is the role of universities in supporting this effort? What field of study do you think plays the most important role? How is their current role / have their roles been felt? What is the role to play? What's your suggestion? What is your role, willingness and contribution to work with them?
		Association	What is the role of the Association in supporting this effort? What areas of association do you think played the most role? How is their current role / have their roles been felt? What is the role to play? What's your suggestion? What is your role, willingness and contribution to work with them?
		Partnership and Collaboration among Pentahelix parties	

		a. Type of existing P&C	What forms of partnership and collaboration between the parties above have been running with your business? Has it been effective? Are there other forms of partnership and collaboration but you are not yet involved? Why isn't it involved yet? Don't you want to get involved, or are there any obstacles?
		b. Expectation for the fit type of P&C	What forms of partnership and collaboration do you think are good? If such a form is available, what is your plan for involvement in that form?
		c. Expectation for involving other parties	Who are the parties you expect to be involved in supporting your business? Why? And vice versa, how do you support them?
		d. Expectation for the role of other related parties	What roles and contributions do you expect to be involved in supporting your business? And what about your contribution to them in reverse?
		e. Expectation for the role of Pentahelix parties	<p>What roles and contributions from the above parties can increase the capacity of your business? And vice versa, how do you support them?</p> <p>What roles and contributions from the above parties can increase the capabilities of your business? And vice versa, how do you support them?</p>

		f. Advantage, opportunity, and strengths of partnership & Collaboration	<p>What benefits do you get from partnerships and collaborations?</p> <p>What opportunities do you expect will be realized through partnerships and collaboration? What strength do you feel with partnerships and collaboration?</p> <p>How much will this increase capacity and capability?</p>
		g. Disadvantage, threat, and weaknesses of partnership & collaboration	<p>The consequence of partnerships and collaboration is the involvement of other parties that cause conflicts of interest, differences of opinion and goals, disputes that can damage performance. How likely is this to happen? How big is the impact?</p> <p>How do you / your suggestions solve / reduce the possibility of this happening? From simple methods, kinship, mediator / mediation, to the realm of law?</p>
5.	PESTLE	Politic	<p>Does the political situation affect your business?</p> <p>Is the political situation favorable for your business development?</p> <p>What kind of political situation do you hope will be conducive to business development? In terms of capacity? In terms of capabilities?</p>
		Environment	<p>Does the environment around you support your business development?</p> <p>What kind of environment do you expect to be conducive to business development?</p>

			In terms of capacity? In terms of capabilities?
		Social	<p>Are social and demographic factors supporting the development of your business?</p> <p>What social and demographic elements do you hope will be conducive to business development? In terms of capacity? In terms of capabilities?</p>
		Technology	<p>Does the technology used in your business support success in competition?</p> <p>What kind of technology do you expect will support your business?</p> <p>Is this technology easy to obtain in Timor-Leste?</p> <p>Will the income generated be able to cover the costs of getting the technology you expect?</p> <p>What collaborations and partnerships do you expect to get the technology you need? In terms of capacity? In terms of capabilities?</p> <p>What are your suggestions for the related parties?</p>

		Legal	<p>Do existing regulations support the development of your business?</p> <p>What regulations or policies do you expect to support your business? In terms of capacity? In terms of capabilities?</p>
		Economic	<p>Are the economic conditions favorable for your business development?</p> <p>What economic conditions do you expect to be conducive to business development? In terms of capacity? In terms of capabilities?</p>
6.	Prospect and Obstacle	Opportunity	<p>Are there opportunities for you to increase business capacity? Your capabilities? What form of opportunity do you mean? How will you take advantage of these opportunities?</p>
		Threat	<p>Are there any threats for you to increase business capacity? Your capabilities? What form of threat do you mean? How will you deal with these threats?</p>
		Business volatility and risk	<p>What are the business risks in this line of business? How much risk could it hinder your business? Even the potential to threaten business bankruptcy?</p>
		Obstacle	<p>What obstacles do you face in developing business capacity? What obstacles do you face in developing your capabilities?</p>

		Current strategy and way-out plan to address obstacle, threat, and problem	What are your plans in the short term to overcome these obstacles? What are your long-term plans to overcome these obstacles? Can partnership and collaboration overcome the obstacles above? What form of partnership and collaboration do you think can overcome the obstacles above?
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Source : Author

*)The specific keywords and descriptions for other Pentahelix parties are provided in the Appendices.

The entire question format is in accordance with what has been described in table 3.3. is intended to make the flow of information from sources more structured and will then be processed in chapter 4 and so on

3.5 Data Analysis and Interpretation Tools

As per the research of Taherdoost (2016), it has been determined that in conducting research data collection and data analysis has been considered as the most vigorous elements. After the data collection, data analysis has been considered as an effective technique that is implemented to attain valid and reliable outcomes. Moreover, in the research the data collection technique, which will be adopted by the researcher is interviewing; however, to examine the data, which will be collected via interviews, it is essential that there must be an adequate technique, which ultimately helps to analyze the collected data. In this study, for data analysis in accordance with the primary

data collection and qualitative research method, the thematic technique will be used.

Furthermore, this process ultimately helps the researcher in developing relevant knowledge and information for the readers. (Moleong, 2005:6) stated that qualitative studies are studies that intend to apprehend the phenomenon of what's skilled via way of means of studies topics which include behavior, perception, motivation, action, etc. holistically, and via way of means of manner of description withinside the shape of phrases and language, at a time. unique contexts which can be herbal and via way of means of making use of diverse herbal methods.

One of the reasons the research chooses to use a qualitative approach is that this method can be used to find and understand what is hidden behind a phenomenon which is sometimes difficult to understand in-depth so that it requires an arrangement of questions as described in table 3.3 which ultimately leads to a flow form. The information obtained can be processed using the interpretation method which will be explained in the next chapter to find the Pentahelix relationship and explain the events that occurred in the coffee industry in Timor Leste.

CHAPTER 4

FINDING AND ANALYSIS

The outline of this chapter will be based on the conceptual research framework. Section 4.1 reports the comparative advantage of coffee commodities in Timor-Leste. Section 4.2 describes informant's profiles based on Pentahelix parties. Section 4.3 discusses data analysis based on five aspects that cover internal factor, ability factor, business profile, specific external factor, macro external factor, prospect, and obstacle. The five factors in Section 4.3 will be analysed based on the perspectives of each Pentahelix party (informants).

4.1. Comparative Advantage: Coffee Commodity in Timor-Leste

a. The big three non-oil and gas commodities data for five consecutive years

Timor-Leste's non-oil exports are estimated at USD 20.000.000 per year, and most of this is coffee. Compared to other commodities, coffee is still the largest commodity and most of the farmers depend on it for their annual income. Currently, there are seven out of the thirteen districts in Timor-Leste that produce coffee. These are Ermera, Maubisi, Same, Liquica, Manatuto, Ainaro, and Aileu. According to data from the General Directorate of Statistics of Timor-Leste, coffee export activity has gone up and down. This is caused by the inconsistency of production, as we can see from the table's blue columns.

Table 4.1. Summary Trade Statistic Timor-Leste

Key Statistic	2013	2014	2015	2016	2017
Merchandise Import	523,391	550,080	487,969	508,192	552,526
Non-merchandise Import	5,433	3,580	3,304	3,511	35,696
Total Import	528,824	553,660	491,273	511,703	588,222
Domestic export	16,049	13,868	11,704	25,274	16,944
Re-export	37,229	25,197	27,366	136,526	7,914
Total export	53,278	39,065	39,070	161,800	24,858
Trade balance	-475,546	-514,595	-452,203	-349,903	-563,364
Total value of coffee export	15,781	13,773	23,800	23,963	14,660

Source : General Directorate of Statistic 2017

b. National comparative advantage in the big three non-oil and gas commodities

Coffee is a popular commodity for sale in Timor-Leste compared to other commodities for several reasons. Demographically the ecosystem around the coffee trees and the mountain altitude are perfect for natural coffee growth. Another reason is because coffee is a desirable commodity in terms of an iconic drink in the culture, it is offered to guests and family members on a daily basis. The unique history and characteristics of organic Timor hybrid coffee does not only attract national consumers but has an expanding international consumer base. As we can see in the table from the General Directorate of Statistic in Timor-Leste, currently there are over 20 countries that now import Timor's coffee every year.

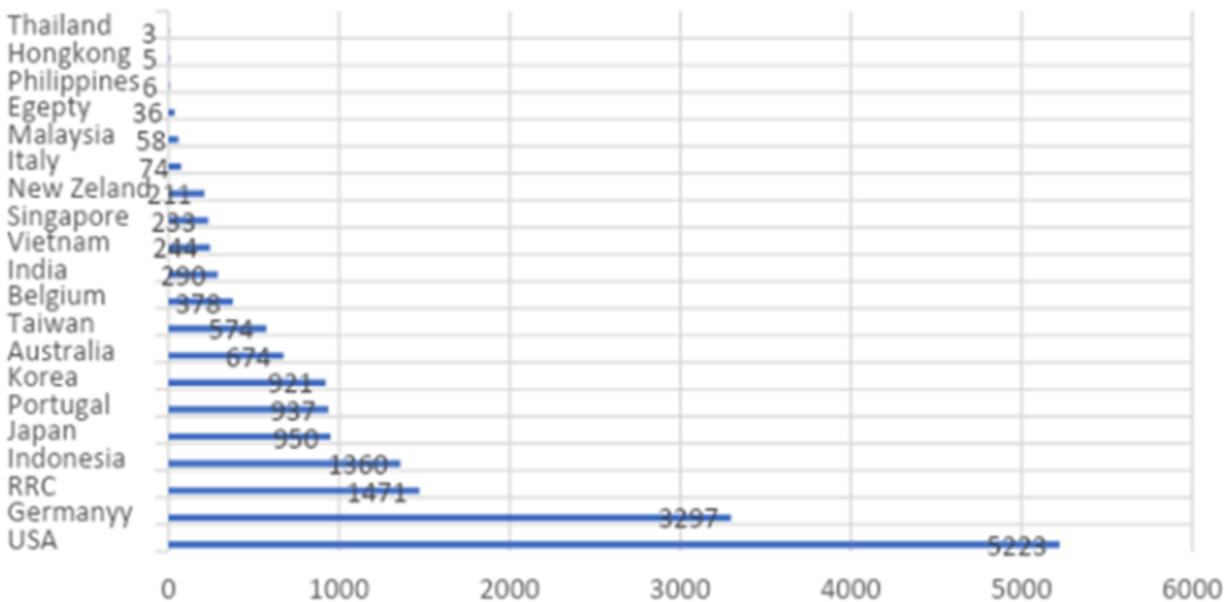


Figure 4.1. Value Export by Major Trading Partner Value (USD '000)

Source : General Statistic Timor-Leste

c. Potential resources in coffee industry from upstream to downstream sub-sectors

There are many elements involved in the coffee industry in Timor-Leste such as farmers, entrepreneurs, nonprofits, the government, academics, and other parties who are interested in developing this industry. These parties play different roles to support this industry. For example nonprofits are more likely to provide training and offer grants to the farmers and start up business, academics are working on research to identify problems in the coffee industry, the government facilitates regulation and support funds, and the entrepreneurs trade with the farmers directly or indirectly. These organisations represent their own interests in developing the coffee industry in Timor-Leste. Timor coffee production has been in decline the last few years, yet the international market demands are considerable and competitive. In the chart below we can see the number of kilograms of coffee exported from Timor-Leste to each destination.

Table 4.2. Coffee Exports from Timor-Leste by Country of Destination (2017)

Country of Destination	Quantity (Kg)	Value(USD)
USA	1,173,800	4,893,527
Germany	1,236,000	3,296,664
Indonesia	1,094,200	1,082,572
Japan	218,400	950,378

Portugal	461,312	937,320
Korea	121,103	920,049
Australia	154,526	657,597
Taiwan	301,860	573,943
Belgium	151,200	378,000
India	192,000	268,800
New Zealand	43,400	210,766
Vietnam	115,400	203,847
Singapore	71,183	113,720
Italy	38,400	73,584
RRC	33,600	58,464
Egypt	19,200	36,288

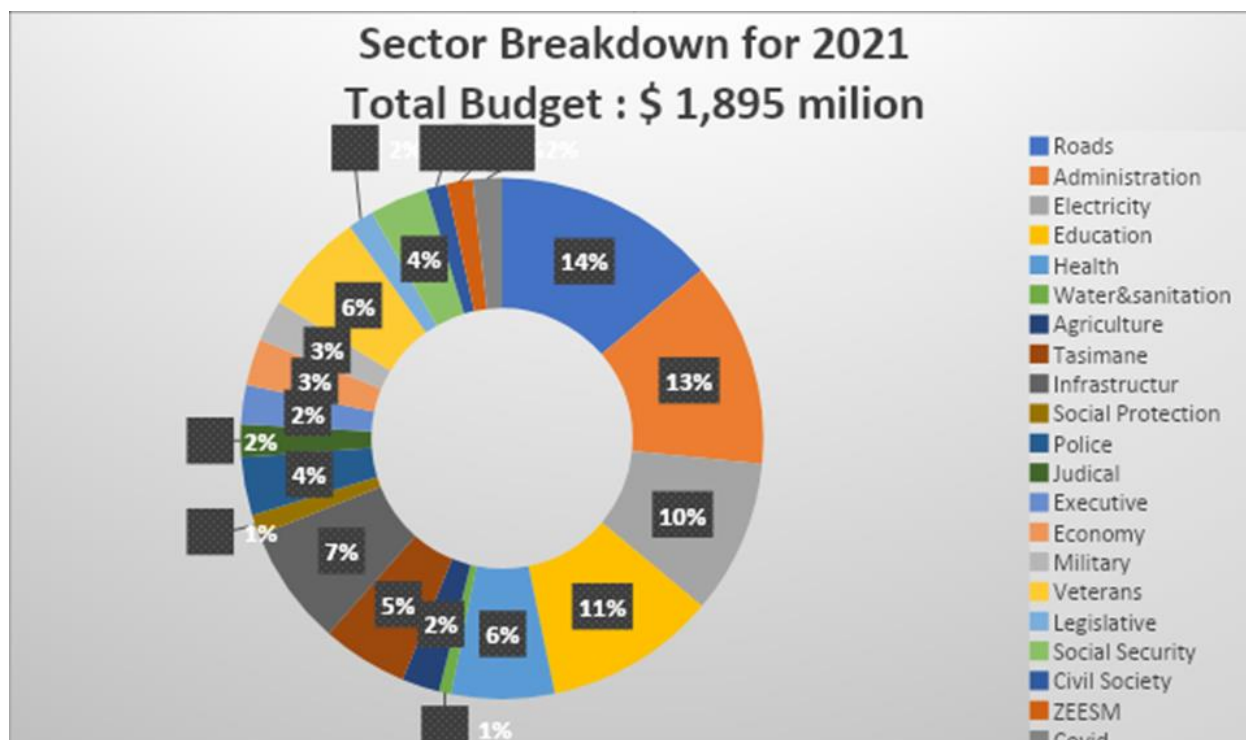
Hong Kong	2,100	4,950
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Source : General of Statistic Timor-Leste

d. Potential national resources in Timor-Leste

Timor-Leste currently depends on oil and gas revenue as the main source of income but long ago farmers depended on coffee as their primary income. This started with the Portuguese colonization over 400 years ago, continued with the Indonesian occupation for 24 years and to this day is still considered the primary commodity. There are other commodities that are increasingly popular among farmers but coffee is still the most prominent. Despite coffee's importance to 2/3rds of Timor-Leste families the government still has not placed a budgetary interest on this sector. Twelve weeks ago the Timor-Leste government enacted the 2021 state budget which was the second largest in the young country's history. It described how the priorities would be health, education, water supply and agriculture but collectively this only accounts for 18% of the budget. Even worse, the principal livelihood of the Timor-Leste population and the solution to malnutrition and the trade deficit, agriculture, only got 2% of public spending. This is significantly more than in the past, but still far below what is needed.

In the chart below was an indicator of how coffee is the top commodity in the country, the blue line, compared to some of the other highest commodities.



Source: Charles Scheiner 2021 (Australia National University) and Lao Hamutuk

Figure 4.2 Sector Breakdown

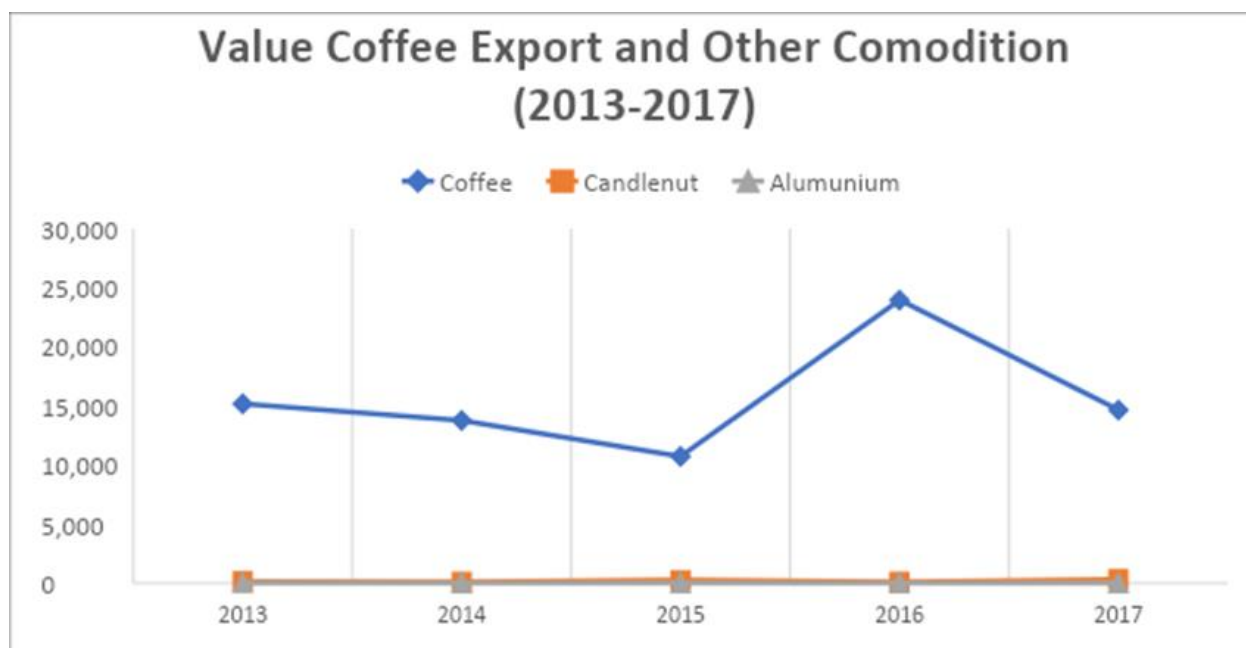


Figure 4.3 Coffee Value

Source : General Statistic Timor-Leste 2017

e. Fundamental economic in Timor-Leste

Since gaining independence in 2002, Timor-Leste has depended on donors from other countries or organisations such as Portugal or the United Nations. With a state budget of USD 68.000.000 the government has been struggling to develop the country. Until 2007 oil was able to bring a large amount of revenue into the country to sustain the development of education, health, agriculture and infrastructure. Since being set up 15 years ago the petroleum fund has received USD 23 billion in income from oil, has gotten USD 8 billion in returns from investments, USD 12 billion has been withdrawn and USD 19 billion remains in the fund, as we can see on the table below.

The black line is the Fund's balance, while the blue bars show how much has been withdrawn each year, and the red bars show what portion of this is "sustainable." According to our sources, over the next five years the government plans to withdraw four times the sustainable amount. Which will leave the government fund in a quick decline with no alternative when it runs out.

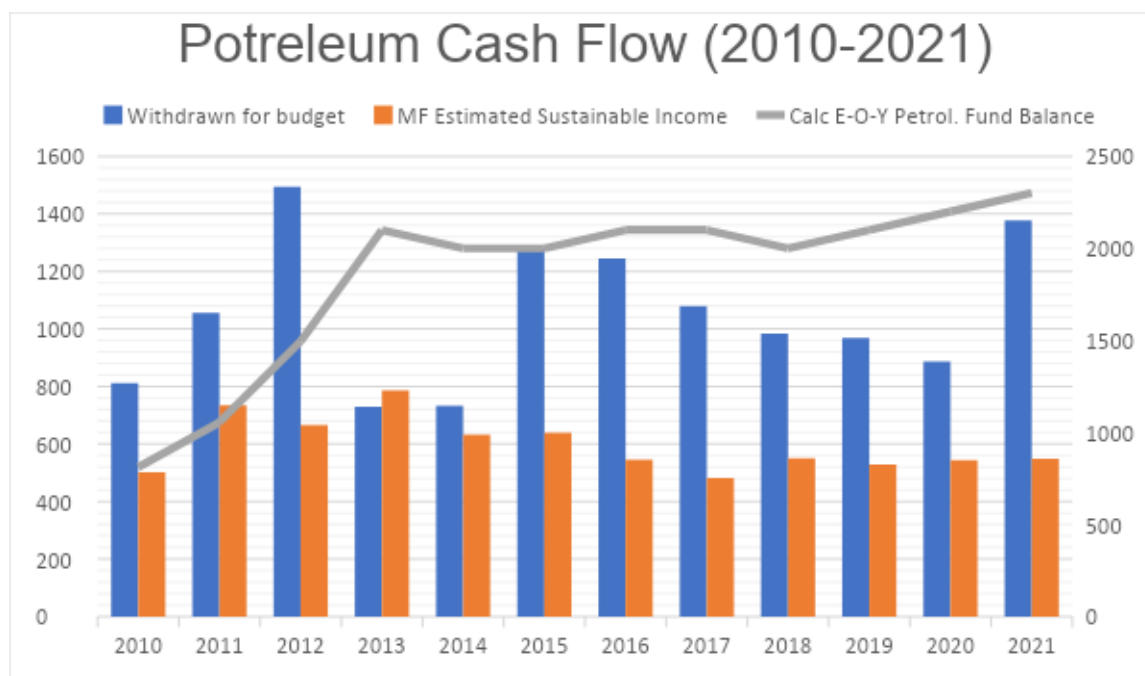


Figure 4.4. Petroleum Cash Flow

Source: Charles Scheiner 2021 (Australia National University) and Lao Hamutuk

f. Opportunity and threat in developing coffee industry in Timor-Leste

There are a few great opportunities for the growth of the coffee industry in Timor-Leste over the next decade. The first opportunity is because of the quality of the coffee which has a unique character since it is a disease-resistant hybrid. The second is that the ecosystem allows for natural coffee growth. The third is that coffee is an iconic symbol in the culture. The fourth is that Timor-Leste coffee has been exported to over 20 countries during the last 20 years. There has also been much fundamental growth in the industry leading to young entrepreneurs starting their own coffee shop and a few of them even exporting coffee themselves. In addition, nonprofits are actively working with farmers and entrepreneurs. They provides new skill training to young people such as barista or waitress training so that the young people can be involved in the

industry. The government has been involved through ensuring the sustainability of coffee through rejuvenating the coffee trees on 40 acres of coffee plantation. Academics are involved through research and assessment to find solutions to problems that have not been resolved previously and also providing the human resources to contribute to the development of the industry.

g. The Threat

There are several weakness that might will become threat in Timor coffee industry, first is the lack of knowledge in creativity and innovation which considered as the impact why this industry can't grow significantly, most of the farmers and the entrepreneurs didn't have enough knowledge on how to develop their business, which caused the coffee production started declined in last 5 years, the second is the government support in terms of budget allocation in sector of agriculture which is considered less than its needs, this might cause the farmers to shift their coffee plantation to others commodities as the coffee prices also didn't doing really well in the last 5 years, in the other hand access for loan for small business still difficult to get and other support such as infrastructure like road access to reach coffee plantation. Lack of training in technology is also a problem because the entrepreneurs and the farmers don't understand well how to produce the best quality coffee using modern tools. Moreover the collaborations between parties that involve in this industry is not linear with the interest of the industry which makes the industry slow to develop because most of the programs are similar and only focus on to each organisation's interest.

h. International comparative advantage in Coffee industry

Timor has its own segmentation of the global market according to the statistics of a report from 2013-2017. Timor's hybrid organic coffee has strong flavors of cocoa, honey and chocolate.

There are many international buyers that have established their office in Timor. Such as NCBA (USA), Timor Corps (USA), Timor Global (Singapore), PARCIC (Japan), (Coffee Maubere Hong-kong), Koika (Korea) and the others. Their main objective is to monitor the coffee quality and export to their country. These organisations are willing to work with farmers to increase the production and the quality of the coffee to fulfill the demand of the global market. In the chart below you can see that the quantity of coffee exports has been steady.

Table 4.3. Coffee Export by Month, Quantity and Value (2013-2017)

Month	2013		2014		2015		2016		2017	
	Qty	Value (USD'000)	Qty	Value (USD '000)	Qty	Value (USD '000)	Qty	Value (USD '000)	Qty	Value (USD '000)
January	1,063	1,007	236	662	0	0	1,745	985	633	1,886
February	673	846	1,644	819	1	3	942	1,091	408	869
March	2	3	649	361	4	10	265	297	395	1,094
April	89	406	19	68	0	0	793	285	53	132

May	0	1	19	38	0	0	59	80	204	386
June	380	384	576	491	0	0	30	21	581	1,527
July	138	171	903	1,580	48	101	978	694	200	743
August	3,354	2,061	1,631	2,766	1,627	1,004	5,399	2,658	946	2,852
Septemb er	3,092	2,028	1,777	2,377	8,452	3,592	7,400	6,575	723	891
October	6,071	3,478	927	2,092	9,510	3,414	5,653	3,885	695	2,766
Novembe r	620	2,173	1,396	1,764	1,600	1,020	1,164	2,404	477	1,202
Decembe r	2,128	3,223	387	753	2,557	1,588	2,142	4,987	112	313
Total	17,610	15,781	10,164	13,771	23,799	10,732	26,570	23,962	5,427	14,661

Source : General Statistic Timor-Leste 2017

4.4. Interviewee List

a. Coffee Entrepreneur

No	Name	Age	Gender	Business
1	Fatima Moniz Soares	39	Female	Coffee shop de Fatima
2	Nuno Ridenio	28	Male	Black Box Coffee Shop
3	Eulailia da Cruz	37	Female	Dare Cafe Memorial Coffee Shop
4	Valeria Novitasari Ximenes	32	Female	Daily Fresh Amores Coffee Shop
5	Luisa Simoes	38	Female	Doce de Tentacao Coffee Shop
6	Joao Nilton De Saldanha	29	Male	Linda Coffee shop and Bakery
7	Aristidis da C Carvalho Soares	33	Male	Laletk moris domin (Bematua)
8	Henrique Jose Moc di Rosario	39	Male	Wai Watu (W2) Coffee Shop
9	Leticia Alves	47	Female	Single origin coffee shop and Export
10	Noviana Mendonca Sarmiento	29	Female	Twentieth Four Coffee Shop
11	Vitor de Jesus Neto	28	Male	Alimau coffee shop

12	Mariano da Costa Alves	29	Male	Atsabe Coffee shop and Export
13	Heni Ximenes	33	Female	Brother Coffee Shop

b. Government

No	Name	Age	Gender	Position
1	Aurith Kanuth	43	Male	Director of Human Resources of Institute Development of Entrepreneurship Timor-Leste (IADE)
2	Carlos Fatima da Silva	55	Male	General Director of department Industry and commerce of Ministry industry and commerce (MCI)
3	Antonio	56	Male	Director Center of vocational training for entrepreneurship

c. Industry

No	Name	Age	Gender	Organisation
1	Bobby Lay	57	Male	Timor Global LTD (Production and Exporter)
2	Luis Tilman	39	Male	President Chamber of Commerce Ermera District

d. Academic

No	Name	Age	Gender	Organisation
1	Lucio Gomes	58	Male	Rector of East Timor coffee institution
2	Carlito de Araujo Malicode	42	Male	Dean of Faculty Agriculture National university of Timor-Leste
3	Graciano Soares Gomes	46	Male	Lecture of agriculture and researcher from National University of Timor-Leste

e. Non-Profit and Community

No	Name	Age	Gender	Organisation
1	Afonco do Santos de Jesus belo	45	Male	The Huminqfish Foundation (Maubere Mountain Coffee)
2	Januari Moc	43	Male	East Timor Development Agency

4.3. Entrepreneurship Ecosystem in Coffee Industry: Pentahelix Approach

In this study used Pentahelix approach to measure the ecosystem in the coffee industry to understand how to build a linear cooperation between coffee entrepreneurs, association,

organisation, and the government institutions to work in the right pattern to develop the capacity and the capability to produce the best results to accelerate the progress of the growth of the coffee industry in Timor-Leste, therefore this research is designed to explore the current conditions and situation of the coffee entrepreneurs Timor-Leste as bellow:

a. Internal Factor

Internal Factor describes the intensity, direction, and persistence of an individual to achieve his goals. As in the data described in the previous chapter and the analysis carried out, the motivations of each party in the Pentahelix collaboration in Timor Leste are still not sustainable and the role of each party in the other party tends to be invisible. So the next steps will be explained as follows,

- **Motivation**

Coffee Entrepreneur. Motivation is one of the key factors for coffee entrepreneurs to establish their business in this field, as the data shown in appendix 3 that most of the coffee shop owners or exporters start their business from the ground which motivated by themselves, only one from thirteen coffee shop owner have recorded in this research that has been experienced trip to abroad to witnessed coffee shop industry in outside of Timor (1.1.1), two entrepreneurs originally from district that has coffee plantation (1.1.2), and the other ten entrepreneurs motivated by their own ideas (1.1.3). The limitation of the financial condition, knowledge, and experience are one of the hardest obstacles but it's not stopping these entrepreneurs from running their businesses, but it does implicate challenges for these entrepreneurs in operating their businesses which caused unstable performance in the market and could not expand their business significantly.

Government. The government through Institute Development of Entrepreneurship Timor-Leste (IADE) and Department of Training Center for Small Business, has been running a program for supporting the start up entrepreneur since 2006, as the two of officers said that the best method that the government can do is to motivate the young entrepreneur is by provide them training and subsidy (1.1.4).

As The Director of Human Resources IADE explained;

“We have design a program to motivate these new entrepreneurs to improve their skill by provide them a training such as management knowledge and give them subsidy based on their business proposal, but the program is still considered ineffective because most the entrepreneurs that have been trained only one or two can successfully run their coffee shop the other is still unproductive.”

Community Non-profit. The non-profit play important role to supply coffee from the farmers to local market, which most of the the farmers were trained by the non-profit could produced best quality coffee and this will benefits the coffee shops entrepreneurs to offers high quality coffee to their customers (1.1.2), in the other hand one of non-profit “East Timor Development Agency” also trained young people to serve as barista or coffee maker at coffee shop (1.1.3).

Somehow one director of the non-profit organisation declared:

The coffee shop business did not really growth significantly as we can see there are still coffee imported around the country, and non of private sector or government really serious to invest in this area, although Timor has huge potential for this industry but the commitment to develop still less.....(Januario Moc, Appendix 2).

Industry. The industry where connected directly with the government, farmers and entrepreneurs explain, they had held events such as competition to motivate coffee entrepreneurs to serve best quality coffee (1.1.2).

One of the participants responded that coffee production has not been doing really well in recent years, and lack of attention from farmers, government and local entrepreneurs have become new challenges (1.1.3).

Academic. The Rector of East Timor Coffee Institute respond that they have established a department of coffee but still focus on aggro coffee production which more emphasize coffee quality (1.1.2), in the other hand The Dean Faculty of Agriculture of the National University of Timor-Leste acknowledge that currently there's no specific department of entrepreneurship which focus on small businesses such coffee shop and exporter (1.1.3.).

- **Interest**

Coffee Entrepreneur. The data in the appendix 3 showing that there are four participants in this study revealed their concern regarding to their involvement in this business are based on the natural resources of the the country where coffee still at the top agricultural commodity in Timor-Leste (1.2.1), in other hand eight of informant respond that by providing new concept of

coffee shop in the market where not yet existent previously will attracted more customer (1.2.2), and only one informant using marketplace as option for selling their products.(1.2.3).

Government. Three of The Government Officers responded that Timor Coffee is one of the valuable assets for the country and its people (1.2.2), the coffee industry will contribute to the economy of the country therefore the government will assist this industry seriously.

Non-profit and Community. Two participants from industry responded that coffee is a popular commodity in Timor-Leste and since its considered as part of culture of its people, and this become an opportunity to be developed (1.2.2).

Industry and Association. Two of participants are responded coffee has value in the market especially organic coffee, and while Timor has one of the best hybrid coffee in the world which have been popular in several country therefore its really attracting the international buyers, and it's an opportunity the only thing should be focusing are the coffee producing and quality control where need to be taken seriously (1.2.2).

Academician. Three participants are respond that the Timor coffee has been study and test in many laboratory and recognized as good quality hybrid coffee, the history of Timor coffee itself

attracting international researcher to explore the coffee, this should be one of the best opportunity for entrepreneurs and all private sectors to invest in this industry (1.2.2).

- Concern

Coffee Entrepreneur. In this study showed that most of the coffee entrepreneurs started their business based on the resources which are available in the country, since coffee is easy to find and the prices were also relatively affordable. This became an opportunity for anyone to become involved in this business. As shown in table appendix 3 that there are two participants in this research acknowledge their willingness to establish their business because of the possibility to find the coffee in the country are much more easier than other commodity(1.3.2), the other two participants respond that they are come from coffee district where all families are coffee farmers (1.3.2) and nine of the participant respond that coffee shop business become interesting because they have seen Timor has lot of coffee plantation (1.3.3).

Government. Two of the Government Officers responded that development of the coffee industry through maintenance the coffee plantation program is to empowering national entrepreneurs and farmers are to the improve their income where can lead them to prosperity life (1.3.1), and on of the participant respond that government have plan few subsidy program in to the future to encourage coffee entrepreneurs but still not implemented yet because of the political condition were always change (1.3.2).

Non-profit and Community . One of player from non-earnings (East Timor Agency Development/ETDA) spoke back that the purpose they may be inclined to set up application to education the younger barista for espresso enterprise due to the fact they observe that the imported espresso are extra ate up than Timor espresso (1.3.2), and one of the player spoke back that Timor has correct natural espresso and its an amazing opportunity, however after gazing the mechanism of espresso manufacturing which now no longer comply with the requirements drove them to contain without delay to paintings with the farmers for potential them to provide correct pleasant espresso to gives to the market (1.3.3).

Industry. One of the informant from chambers trade District Ermera spoke back that their application is extra to help the farmers to maintain the espresso plantation and inspire susceptible to take part in espresso enterprise, and make certain the distribution line among farmers and customers going well (1.3.2), some other reaction from company Timor Global Chairman spoke back that Timor espresso are very precise and has turn out to be their hobby to make investments and bring correct pleasant espresso that may be delivered to neighborhood marketers and global customers (1.3.2).

Academics. The Rector of East Timor Coffee Institute responded that the reason they establish the institution is to provide education to people from seven district of coffee plantation where still have lack of knowledge about coffee to contribute to the economic of the country, the institution started in 2003 with only 50 student and today they have 1.500 students and has graduate 170 students (1.3.2), The two other participants responded that

they interest to involve active in research and doing monitoring in coffee sector s because they realize that coffee is the the biggest commodity in Timor where many of the farmers depend their life on (1.3.2).

- Goal

Coffee entrepreneur. Goals defined as the entrepreneurial vision why they started their business and how they will manage their business, this instrument used to measure entrepreneurial capacity and capability to visualize and build their plan for their business to the future, this question specific to why they want to become coffee entrepreneur, as shown in table appendix 3 that 13 participants out of the total participants were able to responded increasing production and quality in the market as their first priority and to introduce Timor coffee to the global market by exporting to the countries that interested with their coffee (1.4.1) and three of the participants respond that one of their main goals is exporting Timor coffee by them own which they started in small quantities (1.4.2).

Government. The Director of Human Resources Institute Development of Entrepreneurship of Timor-Leste explained in his respond that government was planning to build an integrated learning system to training these young entrepreneurs, he also claims that the biggest challenges that they have faced are building business mindset for the entrepreneurs, quote from his note:

“Our entrepreneur in majority still considered in category of subsistence which is mean their involvement in business is just for survive, just for fulfill their food in the table not more than this therefore we need to encourage them to have an business mindset” (1.4.1 Appendix 2), the other two of the participants respond that government goals are to support the entrepreneurs with

knowledge and skills to produce the best quality of coffee to compete in the national market and international market. (1.4.2).

Non-profit. The first participant responded that their main goal is to promote Timor coffee in Asia and Asean country (South East Asia Community), therefore they are putting lot of effort to work with the farmers and the entrepreneurs to produce good quality coffee to compete in the international market (1.4.1), the other participant revealed in his response that;

“We want the young generation to see coffee as one of the potential products in the market that needs to be developed, and by providing them training and education, we believe they will achieve their plan. Although Timor-Leste has coffee, not many people understand how to make the right coffee beverage or offering good quality coffee to drink. That is why we designed this program for our clients, with the hope that they can start their business or work in this industry” (1.4.2).

Industry. The Chairman of Chamber Commerce Of District Ermera (the largest coffee plantation district) in his saying that,“ *As a Timorese and an individual who grew up with and around the people from the coffee districts, I want Timor’s coffee to dominate the national market but also to take part in the global market. Especially the nook of hybrid organic coffee.*” (1.4.1), and Mr Bobby Lay Chairman of Timor Global Corporation responded that Timor coffee will be a long term business industry, and this is really positive for the future. Currently they work with approximately 6000 farmers every year for coffee production (1.4.2).

Academics. The Rectors of East Timor Coffee Institute responded that the main goals of his institution is to educate the young student to produce good quality of coffee, that was one of the essential part in this industry, by providing knowledge and and internship or study exchange in the future with some countries which also produce coffee such as Indonesia or Brazil will improve the knowledge and capability of their students and it will give impact to local

entrepreneurs to invest in this industry significantly (1.4.1), and the other two participant responded that by improving study and research on coffee industry in the country will give more significant data to the government to prioritize the coffee industry (1.4.1).

b. Ability Factor (Knowledge and skill acquisition)

Ability factors comprising knowledge and skill acquisition are important instruments to measure entrepreneurial ability, this subject consists of seven questions specific to knowledge and skills.

- Experience as owner

Coffee Entrepreneur. In the appendix 3 showing that there are six of the coffee shop owner has been experienced as worker at coffee shop in different category such as; barista, manager, and supervisor (2.1.1), and the other seven participants were non experience in this business, where they started the business only by self motivation (2.1.2).

Government. The General Director of Ministry Commerce and Industry responded that there is not much of significant improvement in terms of the experiences and skills of entrepreneurs in Timor-Leste. Lack of knowledge in management in general, such as marketing, finance, and accounting. This could be considered as the first obstacle. The second major obstacles are technology innovation and coffee processing (2.1.2). The other two participants responded that most of the coffee entrepreneurs are non experienced (2.1.2).

Non-profit. One of the participant responded most coffee shops and exporters in Timor-Leste are learning by doing which means they are only getting training by self teaching, some of them get experience from their previous job like the owner of Atsabe Coffee Shop Mr. Mariano, he has been working with Coffee Lete Foho from Japan and has been a barista for several years and now he has established his own coffee shop and is able to export coffee to Australia, UK and New Zealand (2.1.1), the other participants responded many coffee entrepreneurs learning by doing and they didn't have experience at all or proper knowledge of business (2.1.2).

Industry. The two participants responded that coffee entrepreneurs in the country started to growth, as we can see the numbers coffee shop are increasing compare to two years ago, but coffee exporter still not showing any positive sign, event though the numbers of young people who are interested to run coffee business become intense but their knowledge of business need to be improved (2.1.2).

Academician. Three participants were able to responded to the same answer that coffee entrepreneur is considered starting their business from no experience of business, they might have been employee as staff previously but not as a top manager or supervisor which dealing with management or business knowledge (2.1.2).

- Formal education

Coffee Entrepreneur. Formal education of the participants was also explored by the researcher to examine their knowledge in this firm of business, as showing at table appendix 3, from thirteen

participants there are three participants responded that they have supported from their major study during in the collage, such as management and and economic which has relations with business although not specifically to coffee business field but it does supporting them to manage their businesses (2.2.1) And eight participants were responds absent in their education and two of the participant did not attend any formal education (2.2.2).

Government. Three of the Government Officers responded that formal education in Timor-Leste for business is quite positive, there is one of institute are focusing on business (Institute of Business Timor-Leste) and government has Institute of Development For Small Business And Entrepreneurship, and also East Timor Coffee Institute (2.2.1).

Non-profit. The participant number one responded that currently Timor-Leste has coffee institution which establish to educate younger generation about coffee knowledge and it will help them to applied to their business in the future (2.2.1), the second participant responded that currently only their organisation (East Timor Development Agency /ETDA) is focusing on training and educate young people to involve in coffee industry the rest of the institution probably offering business knowledge in general but not specific for coffee industry as currently they have (2.2.1).

Industry. Two of the participants responded that Timor already has a private coffee institution. Their focus is mainly in the area of agriculture and management, but they are not yet producing

enough graduates to be a major player. The government's role in this industry has mostly been in the form of short-term education programs but it has not really been efficient (2.2.2).

Academics. One of the participant responded that formal education does really contribute to improving the skill of entrepreneurs such as management, accounting and marketing, but it will be better to add entrepreneurship knowledge discipline to the entrepreneur (2.2.1), this argument also supported by two of the participants (2.2.1).

- Apprentice, Internship

Coffee entrepreneur as the data showing at table appendix 3 that three of the participants were responded that the internship does really effective for their business, participant number 2, Nuno “ Black Box Coffee Shop “ doing his internship in coffee shop and restaurant during his study in Bali, participant number 3 Mariano “ Atsabe Coffee “ doing his internship for two months in Japan supporting by his employer Lete Foho Coffee, and participant number four Vitor doing his internship during work in England with coffee shop NERO and COSTA coffee (2.3.1),

And there are none of participants responded for ineffective internship, and 10 of the participants were responded with no internship (2.3.3).

Government, Three of Government officers responded that its really important to do internship for young people before starting their business, especially in coffee industry which required

technology skill and management knowledge and government has establish The Institute of Development For Small Business and Entrepreneurship with objective to training and educate young entrepreneur (2.3.1).

Non-profit, The Director of East Timor Development Agency responded that it's really important to provide experiences for the young entrepreneurs before they establish their business in coffee industry therefore their organisation offer three to six months internship for coffee training such as barista and waiters (2.3.1), the participant number 1 responded currently they don't offer internship program for entrepreneurship but they do training the farmers to produce good quality coffee and this is effective to help entrepreneurs to have good coffee for sell in their coffee shop (2.3.1).

Industry, Two of the participants responded that they do hear about training but not for internship, may some organisation offers this program but we never hear that, if this internship program is really implemented this could be a solution to help entrepreneurs (2.3.1).

Academics. Two of participants responded that internship for coffee entrepreneurs are really important, this will help the start up gained knowledge and applied to their business to avoid failure (2.3.1), in the other hand one participant responded that he did not sure about it (2.3.2).

- Training and workshop

Coffee Entrepreneur. As data showing at the table appendix 3, four of the participants responded effectively to the training and workshop as they had been trained in their previous job and attended workshop locally and internationally, as participant number three Mariano “ Atsabe Coffee Shop " where he attending barista workshop in Bali support by his previous employer Lete Foho coffee, and informant number four Vitor “ Alimau Coffee Shop “ while doing his training in Nero Coffee and Costa Coffee in London, informant number eight also did training previously in her work place, and participant number twelve had been training during work in her previous job (2.4.1). Ten participants responded that they had never participated in any training before (2.4.3).

Government. One of The Government Officer responded that government have not yet provide workshop or internship specifically to the the coffee business, most of the program are in general knowledge about business such as marketing, accounting and management for small business (2.4.3), two participants were responded government have not yet design any training specific for coffee entrepreneurship (2.4.2). The third participant responded that they held entrepreneurship competitions every year and they offered short training before the competition started (2.4.1).

Non-profit. Two of the participants responded that they do provide training for farmers and young people to build their skills in this industry such as barista, waiters, and also to do coffee

processing but not business knowledge, but this may could be effective to applied for the business in the future as well (2.4.1).

Industry. Two of the participants responded that training and workshop where offering by non-profits recently considered effective to young entrepreneurs, as some of entrepreneurs who previously work in the non-profits as a staff currently able to open their coffee shop business (2.4.1).

Academic. Three of the participants responded that currently there is no such as training provided by the universities for entrepreneurship program (2.4.3).

- Self learning

Coffee Entrepreneur. The self learning method is the most frequently proposed by the participants, these participants agreed that self learning give them courage to run their business, most of the products that they sell at their coffee shop they learn from video tutorials in YouTube, but unfortunately the researcher found that they only learn how to make coffee but not learn about how to manage their business or build a business plan (2.5.1).

Government. On this section this question not available for Governments Officer.

Non-profit. In this section this question not available for the participants.

Industry. In this section the question not available for the participants.

Academics. In this section the question is not available for the participants.

- Work employee experience

There are four participants that has been working in this before started their business, participant Fatima “ De Fatima Coffee Shop ” has work as manager in Lete Foho coffee, participant Mariano “ Atsabe Coffee Shop “ has work for three years as Barista at Lete Foho Coffee, Participant Victor “ Alimau Coffee Shop “ have been employee in England at two different coffee shop Nero and Costa Coffee, and Linda “Linda Coffee Shop and Bakery“ have been experienced as employee at few different local coffee shop in England.

- Additional factors that be needed to improve the capability

Coffee Entrepreneur. As shown at table appendix 3, several additional factors that need to be added to improve the capability such as; research, fund and knowledge. From thirteen participants were responded zero to research (2.7.1), and from the thirteen participants only one of the participant Nuno “ The Black Box Coffee " had received fund from The Institute of Development of Entrepreneurship Timor-Leste after winning the coffee entrepreneur competition and been awarded USD 5.000 to run his business. (2.7.2). And all the participants agreed that knowledge is important to improve the quality of their work of their business (2.7.3).

Government. One participant responded research is important to develop the concept of entrepreneurship (2.7.1), one officer responded that the funds are provided in their department

“Institute Development of Small Business and Entrepreneurship“ for business start up but required certain qualification (2.7.2). The three participants agreed that knowledge should be the most fundamental based to absurd by the entrepreneurs to achieve success in business, because many had failed even though received funds from government (2.7.3).

Non-profit. Two of participants responded research could be the best guide to identify problem in the coffee industry of Timor-Leste (2.7.1), none of participants responded to the availability for funds , the two participants agreed to knowledge improvement to capacity the entrepreneurs (2.7.3).

Industry Two informants responded knowledge and skills should be acquired by the entrepreneurs such as managerial skill, coffee knowledge and technology (2.7.3), and funds such as loan access are really important to support the entrepreneurs to implemented their business (2.7.2).

Academics. One the participant responded that managerial skills, knowledge about coffee should be the fundamental base for the entrepreneurs to success in their business (2.7.3), two of the participants responded that knowledge in business and access for loan need to be added to empowering the entrepreneurs (2.7.3)

c. Business Profile

Business profile is used to measure the progress of the entrepreneurial capacity and capability in managing their business, its consists of ten question specific to how long they have been running the business and how successful the plan has achieved including the way of organising and operating the business. And it is known that the interest that each party in Pentahelix has is quite sustainable, namely advancing the economy in Timor Leste through the coffee industry, which is explained as follows,

- Firm age and history (founder)

Coffee Entrepreneur. From the total participants are responded their business has been establish over than two years, only four participants has just started their business less than six months (3.1.1).

Government. According to the one of the participant General Director of Commerce and Industry currently there are 15-22 active and inactive coffee shops in the country where operated by local and international (3.1.1), the other two Government Officers responded they don't have the exact number of coffee entrepreneurs but it is estimated less than 20 which operated with licenses (3.1.1).

Non-profit. Two of the participants not able to responded to specifically to the question because there's no data about this, but one of the participant revealed that their duty is only to training the

young people who are seeking for new opportunity to work at coffee industry such as barista and waiters.

Industry. Two of the participants responded that there's no exact data about this information, the reason behind the statement because there's no information or data about it (3.1.2).

Academics. One of the participant didn't clearly mention about exact number based on data, but according to his observation there are around 20 coffee entrepreneurs has establish in the country, that include coffee exporters and coffee shops (3.1.1), the other two participants not sure about the numbers of the coffee entrepreneurs (3.1.2).

- Asset size based on sales, total assets,

Coffee Entrepreneur. There are three levels to measure the assets of the investment, small, medium and large. One of the participant respond small for their assets where the investment bellow than USD 10.000 (3.2.1), and the seven participants are responded in medium level of assets which in range of investment around USD 10.000 to USD 100.000 (3.2.2).

Government. One the participant The General Director of Commerce And Industry responded that they don't have data related to this information (3.2.4), the two other Government Officers responded that there's no statistic available for this information (3.2.4).

Industry. Two participants responded that they don't have data about this information (3.2.4).

Academics. Three of the participants responded that there's no data of this information available in their system (3.2.4).

- Number of employees

Coffee Entrepreneur. The numbers of employees consist of three categories, small from 1 to 25, medium 25 to 500 and large 500. Twelve participants responded for the small category between 1 to 10 employees (3.3.1), and one participant Mariano "Atsabe Coffee" responded for the medium category, where he employed 120 people as seasonal workers every year for coffee processing (3.3.2). And zero respond for large categories (3.3.4).

Government. One participant responded that around four thousands people were working for the coffee industry, but the researcher doubt about this number because there's no data can be proved (3.3.4), two of participants responded they don't know exactly about this information (3.3.3)

Non-profit. One of the participant responded that they have been trained with about 40 young people during last two years of their program to contribute to coffee industry, but they have data

about how many people have been employees in the coffee industry (3.3.4), the other participant responded that they don't have data about this information as well (3.3.4).

Industry. One of participant The Chairman of Timor Global responded currently they are working with around 4000 farmers (3.3.3), and the other participant the The President of Chamber Commerce of Ermera District responded that they don't have the data about this information (3.3.4).

Academics. One participant responded that they don't have this data (3.3.4), the other two participants suggested confirming with The Department of Labor for further information (3.3.4).

- Ownership structure

Ownership structure is defined to study the entrepreneur form of business, whether its individual investment or partnership and joint venture capital, including what is included in the proportion of partnership, sharing profit pattern and various forms of partnership.

Coffee Entrepreneur. The thirteen participants able to respond to structured ownership where the investment and ownership are upon based on the license they have (3.4.1). However the researcher found that the business organisation implementation still lack of partnership and collaboration where these business owners are confused about how to develop their business.

- Source of fund

Source of fund is defined to measure what is the fund form for these coffee entrepreneur businesses, whether from equity or debt and what is proportion for debt or equity.

Coffee entrepreneur. All of the participants responded that they start their business by self-funding, mostly it came from their savings during work and also from family support (3.5.2), only three participants have access to loans to improve their investment such as rehabilitating their coffee shop and buying other equipment (3.5.3). And none of the participants are responding to government funds.

Government. The General Director Ministry of Commerce and Industry responded that at the moment they don't have specific funds for the coffee industry, but the ministry does have funds to provide for all business proposals and it can be up to USD 1.000.000, depending on the business progress (3.5.1). The Director of Human Resources Institute of Development Small Business and Entrepreneurship responded that they have limited fund to support the entrepreneurs, mostly they can only support the start up but the fund is below than USD 10.000 (3.5.1), and The Director of Vocational Training For Small Business and Entrepreneurship responded that they only available for providing training, they don't have fund for subsidy the entrepreneurs (3.5.4).

Non-profit. Two of the participants responded that currently their organisation didn't offer any grant or subsidy for coffee entrepreneurs (3.5.4).

Industry. Two of the participants responded that they don't have information about this topic (3.5.4).

Academics. One participant responded that the subsidy for entrepreneurs is provided by the Ministry of Commerce and Industry, and revealed that the selection of the eligible candidate is quite competitive (3.5.1), The other two participants responded that there's still no funds provided specific for the coffee entrepreneur to develop the coffee industry (3.5.4).

- Additional factors that need to be added to improve capacity

The additional factors that need to be added to improve the capacity of the coffee entrepreneur is measured from what form of support or capital that is expected to increase the business or scale.

Coffee Entrepreneur. Three of the participants responded that government policy is needed to reform to simply business regulation which easy to accessible (3.6.1), Three participants responded that technology are important to scale up their business (3.6.2), And seven participants were responded that access for loan is important for their business (3.6.3).

Government. One of the participant responded that training and business knowledge and technology education are the most important, based on government's experienced after giving the subsidy to the entrepreneur but they are not making any progress even fail in their business (3.6.2), the other two participants were able to responded that policy support should be adaptable with the entrepreneur situation to support the access for entrepreneur to get loan for their business (3.6.1).

Non-profit. One of the participants responded that scholarship is needed to be provided for these entrepreneurs to attend a short term course to gain more knowledge and experience in business (3.6.2), the other participant responded that a loan with small interest is important to be accessible for this entrepreneur to develop their business (3.6.3).

Industry. One participant responded that knowledge in business and access for loan are the biggest challenges that coffee entrepreneurs have at the moment, therefore these things should be seen as a priority by the government to develop this industry (3.6.3).

Academics. One participant responded that training and business education are essential to improve the entrepreneur capability, and the coffee price regulation needs to be regulated (3.6.1), the other two participants responded that access loans for coffee industry such as coffee entrepreneurs have to be prioritized to support the development of the industry (3.6.3).

- Sales/revenue trend

Sales revenue and trend is defined to measure the coffee entrepreneurs business in the market, whether its on trend or its not making progress.

Coffee entrepreneur. Six of the participants are responding positively for their selling in the last two years (3.7.1), on the other hand seven of the participants are responding negatively due to political instability in the last three years which affected the national economy and the pandemic (3.7.2).

Government. The General Director of Commerce and Industry responded that coffee export in Timor-Leste still not showing significant improvement but the sell point still considered positive around 20 to 30 tons in every year (3.7.1), the other two participants responded that Timor coffee now available in supermarket with the good packaging and also in many coffee shops around the country, this is mean positive (3.7.1).

Non-profit. One of the participants responded that the coffee industry in Timor-Leste started growing and this could be a positive sign for trend sales (3.7.1), the other participants also responded that the sales trend is positive based on the coffee sales being considered steady (3.7.1).

Industry. The Chairman of Chamber Commerce and Industry of Ermera District responded that if compare to 25 years ago coffee Timor production has fallen to 25%, but if we look at to the past five years it can considered steady (3.7.1), the other participant responded that the coffee sales is up and down every year but it still considered stable (3.7.1).

Academics. The Dean of Faculty of Agriculture of National University of Timor-Leste responded that based on his observation coffee sales considered steady as the local start up entrepreneurs started to joint the industry (3.7.1), The Rector of The East Timor Coffee Institute responded that coffee Timor has its segmentation in the market either in the national or global, and the selling point still considered steady as the export activity and national consumer still on demand (3.7.1), and Mr. Graciano revealed that currently the cooperative from USA (NCBA) invest USD 11.000.000 (eleven millions US dollars) to coffee Timor as buyer, this mean the sales trend still positive (3.7.1).

- Profitability trend

Profitaability trend is defined to measure the coffee entrepreneur business profit margin in the last three to five years.

Coffee entrepreneurs. Seven participants responded profitable in their business (3.8.1), and six participants responded non profitable due to political instability and pandemic (3.8.2). As participant Fatima Coffee revealed that

“The first year of our opening is very promising and we event able expand to open another chain of our coffee shop, but then political instability and pandemic caused our income going down.”

Government. One of the participant Mr. Antonio responded that based on his observation the coffee industry profitability still considered sharp as he mentioned;

“We have observing during last five years the coffee export and national use are not that increase significantly but it still going well as usually” (3.8.1), the other two participants were able to responded that coffee still considered profitable as the farmers still doing their plantation and the number of entrepreneurs in coffee industry still open their coffee shop (3.8.1).

Non-profit. Two of the participants were able to respond that coffee industry considered steady, and it will be more profitable if all the organisation able to put the effort to develop the industry concomitantly, as one of the participant Mr. Afonco added;

“As my experience during produce the coffee with farmers, actually Timor coffee is high potential for international market and national market as we see the international customer demand really enthusiasm” (3.8.1).

Industry. One of the participant Mr. Luis Tilman responded that the coffee profitability is considered sharp fall as he revealed;

“ If we compared to 20 or 25 years ago during Indonesia occupation, coffee production is in the best performance and then if we look at to the current condition our coffee are left behind in term of production and distribution which is caused many farmers now starting switch to other commodity like vanilla and others ” (3.8.2), the other participant responded that coffee profitability is steady (3.8.1).

Academics. One of the participants responded steadily based on the analysis of the coffee demand on the local market and international market which continually sustain (3.8.1).

- Cost component

Cost component is defined to the one of the element in the business of coffee entrepreneurs, its comprising operational cost such as, salary, electricity, rent, marketing, coffee supply chain, and maintenance.

Coffee entrepreneur. Majority of participants responded that operational cost as of the main expenses that absurd financial mobility in their business, as the Fatima Coffee added;

“ The biggest challenge in our business are operational cost, because we have to pay for rent, electricity and others products such as milk to make coffee and others, then if the customer didn't visit our coffee shop we will be so devastated ” (3.9.1).

Government. In the other hand one of Government Officers responded that coffee plantation maintenance are is the biggest component in coffee business although the entrepreneurs not

involve directly to this issue but at the moment the government are the one subsidizing this program (3.9.2).

Non-profit. The director of East Timor Development Agency responded that technology is the crucial issue for the coffee entrepreneurs, as he stated that

“Most of the start up of coffee entrepreneur couldn’t grow their business rapidly due to lack of facility in technology, such as coffee machine which considered expensive and other tools that related to technology in this industry“ (3.9.3).

Industry. The Chairman of Chamber of Commerce and Industry of Ermera District responded that one of the biggest cost component in the coffee industry are logistic for transporting the coffee from plantation to the city and the maintenance of coffee plant (3.9.2).

Academics. The Dean Faculty of Agriculture of National University of Timor-Leste responded that maintenance and the treatment of coffee plantation are the biggest financial cost in coffee industry in Timor-Leste (3.9.2).

- Legal status of entity

The legal status of the entity is defined to measure coffee entrepreneurs business status, whether it's a liability limited company, small businesses or corporation.

Coffee entrepreneur. Majority of the participants were able to responded that their business status are registered as liability limited company. Only two of the participants responded that their business is registered as a small business (3.10.1).

Government. The General Director Ministry of Commerce and Industry responded that the government provides license for coffee business industry from level of small business to corporate based on their capitals (3.10.1).

Non-profit. Two of the participants responded that they are registered as non-profit which focusing in coffee industry and training (3.10.1).

Industry. Mr. Bobby Lay responded that they have legal status as corporate company with investment above USD 1.000.000 (3.10.1), and Mr. Luis responded that they are chambers commerce focusing in coffee industry (3.10.1).

Academics. The Dean of Faculty Agriculture of National University of Timor-Leste responded that most of the coffee entrepreneur in Timor-Leste holding liability limited company for their business as he added;

“This is the easy way to establish business license in Timor.”

d. External Factor: Specific

The external factor is defined as cooperation between the coffee entrepreneurs with every parties that is involved in the coffee industry, such as : government, academics, non-profit organisations, coffee association, supply chain and network. This section consists of ten specific questions with a sub question using Pentahelix as the instrument to measure partnership and collaboration among all parties.

- Supply chain and network

Supply chain and network are defined how the business relationship between coffee entrepreneurs and the suppliers include stability of supplying, quality of the coffee, contribution of working together.

Coffee entrepreneur. Majority of participants responded to well structured, where the supplier has been working effectively to maintain the quality and the quantity of the coffee every year and the entrepreneurs are satisfied with the coffee quality which results in customer satisfaction (4.1.1).

Three of participants respond non structured.

Government. The General Director of Commerce and Industry responded that the cooperation between suppliers and buyers are accessible and developed naturally among themselves, and he added;

“We only give them regulations to be followed, like license, taxes and the export certificate. We also give them assistance during the process of export through the customs department” (4.1.1).

Non-profit. The Director of Coffee Maubere responded that their activity of exporting coffee to Hong Kong is going well, although the market demand is considered high but they are able to fulfill customer needs (4.1.1).

Industry. The Chairman of Chamber of Commerce and Industry of Ermera District responded that the enthusiasm of the market respond to Timor coffee are considered positive, as he stated;

“The biggest buyer still hold by industry corporation from oversea and the non-profit is only focus on specialty coffee” (4.1.1).

The other participant Mr. Bobby Lay The Chairman of Timor Global were able to responded that the don't have any problem with coffee supplier either from the farmers or the coffee business suppliers (4.1.1).

Academics. The Rector of East Timor Coffee Institute responded that based on his observation for coffee supplying activity in the last five years quite promises as the international buyers and the suppliers are working intensively to maintain the quantity and the quality (4.1.1), in the other side The Dean of Faculty Agriculture of National University of Timor-Leste revealed that during their observation in the coffee field there are complaints were addressed by the farmers regarding to the coffee prices were considered unfair, as he stated;

“When we run our program with farmers, we are able to informally witness the supply chain process, which in my observation is unsatisfactory for the farmers, they could be called a victim in this industry because of the price competition” (4.1.2).

- Government

Government is defined as the regulator for the policies and facilitator of program development which contribute to the coffee entrepreneurs to achieve their plan.

Coffee entrepreneurs. The majority of the participants responded that they’ve never heard anything about government programs such as training, workshop, subsidy or exhibition which aim to develop coffee industry, and the regulations which applied by the government to coffee shop businesses are considered complicated, this is related to business license, inspection, and tax report, as The Owner of Black Box Coffee described;

“Sometimes the government policies becomes obstacle for us to renew our business license or tax report, the administrative system quite complicated, and it cost lots of our time and money, I have been experienced paying penalty USD 1500 just because I didn’t know that tax report should be reported every month and this is really unfair to small business like me” (4.2.2).

Government. The General Director of Commerce and Industry responded that Timor-Leste is not like other country for example Indonesia or Australia that has department which specific to fully monitoring export activity, most our export activity is handle by the entrepreneur themselves, and the government only doing inspection through Department of Custom, in other word government is only provides license to facilitate the entrepreneurs to do their business and he stated;

“As we can see it's pretty easy to export coffee from Timor to other oversea as long the exporter carries a license for exporting”(4.2.1).

Non-profit. The Director of East Timor Development Agency responded that they already inform the government regarding to the significant number of application that they received from young Timorese who are interest to do course for coffee program in their organisation but due to lack of financial issue they couldn’t accommodate all the applicants, and until today they haven’t hear anything from government side (4.2.2), and one of the participant from Maubere Coffee Organisation responded that there’s still no any sign from government to put more effort to coffee industry as he stated:

“The government through The Ministry of Agriculture has already established a Department of Coffee, we have invited them a couple of times to our festival, and until today we haven’t heard

from them about any concrete programs related to the coffee industry, maybe they are still working on this process. We really hope they can work to support the farmers and for the Ministry of Commerce, Industry and Tourism to work really closely with this industry entrepreneurs to lead them to develop their business by providing training, funding and also promotion I guess” (4.2.2).

Industry. The Chairman of Chamber of Commerce and Industry of Ermera District responded that government attention to the coffee industry is considered inconsistent as he explained;

“ The Ministry of Agriculture and Ministry of Commerce have established several programs over the last 10 years to support entrepreneurs and farmers to be productive. Yet after many years those programs are still not producing good results. Over the last few years the political dynamic has changed and this has become an issue for the industry to grow according to their original plans” (4.2.2).

Academics. The Dean of Faculty Agriculture National University of Timor-Leste responded that lack of the attention from the government to the coffee entrepreneurs impact to the coffee industry growth as he stated;

“The role of the government in encouraging the coffee industry is not enough. My recommendation would go to the Ministry of Commerce and Industry since most of the programs for small businesses are under their responsibility. It is their responsibility to coordinate with the Ministry of Agriculture to train entrepreneurs about business and coffee. The Ministry of Finance also needs to participate in these programs to facilitate access to loans with a small interest to support these new entrepreneurs. With my experience working in the areas of fishery and aggro businesses the banks are interested in getting involved with a program like this” (4.2.2).

- Community (Non-profit organisation) and culture

Community (Non-profit organisation) and Culture role defined as the social contribution to the coffee entrepreneurs, where they support the coffee entrepreneurs through training programs, grant, link the entrepreneurs with the farmers and provide best quality coffee from farmers to the coffee entrepreneurs.

Coffee Entrepreneur. Majority of the participants able to responded positive related to non-profit contribution, where the existence of non-profit and culture does contribute to their needs such as providing good quality coffee from the farmers to the coffee entrepreneurs, as The Owner of De Fatima Coffee shop revealed that she's not only get benefits from gaining experience during working with non-profit Lete Foho as manager before she start her business but she also had receive grant of a coffee machine from Australian Aid to support her business (4.3.1), another participant from Dare Cafe Memorial, Ms. Eulalia responded that non-profit has become one of key player in this industry which not only providing good specialty coffee but also motivated coffee entrepreneur like her to improve her business, as she quoted;

"When I start doing this business I don't have any skill and knowledge about this business luckily I have friend who have work with non-profit where focus on coffee industry and able to come to help training my staff to make good coffee for my customer, I also receive grant of a coffee espresso machine from USAID through their tourism program which I considered really benefits me with the this advance technology to produce best quality coffee for my customers"(4.3.1).

Government. The Director of Training Center of Small Business responded that indeed non-profit role in this industry is positive in terms of increasing knowledge to the start up and motivated them through capacity program (4.3.1). The General Director of Commerce and Industry also acknowledge that non-profit role in the coffee industry are important as he stated;

“The non-profit have been doing a lot since we got independence. Mostly providing training for young entrepreneurs and giving them technology such as coffee machine and others. We are happy with their contribution because it has created significant progress for our entrepreneurs and coffee farmers in terms of improving their economic situation” (4.3.1).

Non-profit. The participant from East Timor Development Agency responded that human resources are needed to be developed to growth this industry and their organisation are commitment to focus on this area as he described;

“Yes, there are many non-profits involved in this industry. As we have seen, many projects have been implemented. Most of the programs are more focused on producing good quality coffee, but we think human resources are more essential to develop this industry. Therefore, we are intensively focusing our program and we hope the other non-profits will also do the same thing because there are so many young people who want to learn about these skills” (4.3.1).

Industry. One of the participant were able to responded that non-profit role are significant in the coffee industry, as he mentioned;

“This is especially for farmers and coffee shop entrepreneurs through training and assessment”(4.3.1).

Academics. The Rector of East Timor Coffee Institute responded that non-profit became as one of key player in this industry, it can see from how they supported the farmers to produce good quality of coffee which benefiting all parts who involve in this industry such as entrepreneurs, customers, and the farmers itself (4.3.1), in the other hand The Dean Faculty of Agriculture of National Timor-Leste University responded that non-profit has done lot of good work but he considered the coffee industry still need more skillful entrepreneurs to develop the industry, as he added;

“Most of the nonprofits involved in this industry are offering training and assessment for farmers to produce good quality coffee. There are no significant programs for entrepreneurs or small businesses. I think the non-profit should create more training for entrepreneurs who are involved in this business” (4.3.1).

- Academics

Academics role defined to the contribution of producing human resources and research to the coffee industry, such as create department study where specific to coffee industry, produce graduate that able to contribute to the development of coffee industry, and research that provide scientific information regarding to the coffee industry progress.

Coffee entrepreneur. Seven of the participants responded positive, where they have benefits from the academics role in terms of internship, the university able to let their students to do the internship or research at coffee shop and it bring opportunity to the coffee shop to share their business experience with the student and as the return the student will share knowledge that they

have learn during at school which contribute to both side and as the result the coffee shop recruit the student that they have selected according to their business needs.

As Ms. Heni from Brother Coffee revealed;

“We had signed Memorandum of Understanding (MoU) with Institute of Business (IOB), which one of our cooperation is to run internship in our coffee shop and the student really contribute to our business like they are able to do accountability and marketing, and its really benefiting us as we can have them to work as our staff” (4.4.1), in other hand six of the participants respond absent due to the academics role have not yet been contribute to their business, they were consider the university program study are not compatible with coffee industry which less contribute to the growth of the industry (4.4.2).

Government. The Director of Training Center of Small Business responded that private institute such as university and government has provide learning material in business such as management, marketing and other training with purpose to produce more entrepreneur where can be successful in their business goals (4.4.1), The General Director of Commerce and Industry responded that although the Universities has produce many graduates in the country but there’s still no program that specific or focus to coffee industry and he added in his quote;

“Yes, the Universities have been producing so many graduates. At the moment they are working in so many fields, but for this industry we have not yet seen any specific program or department to focus on. We hope the universities can absorb more specific programs for entrepreneurs that can focus on the coffee industry” (4.4.2).

The Director of Human Resources Institute of Development For Small Business and Entrepreneurship responded that research from academician are the biggest contribution for government and entrepreneurs to understand the condition of Timor-Leste coffee industry and

based on his observation there is no significant policy where adopted by government based on academic research as he explained;

“We have no clue how to develop this industry, and that is why the academic research contribution need to be considered as the primary source of information” (4.4.2).

Non-profit. The participant from Maubere coffee responded that the academic role in coffee industry is considered very less, either from research activity or seminar that discuss about coffee industry (4.4.2), The Director of East Timor Development Agency responded that universities program did not really supporting the coffee industry, as he explained;

“We don’t see universities supporting this industry. Most of them only want to graduate their students, they don’t even care if the student has knowledge or not. A few have sent their students here to do an internship with us, but they never contact us or ask about the student’s progress or meet with us. It seems like we are just here for them to fulfill the academic criteria for graduation. I hope the universities can establish a department focusing on coffee entrepreneurs or businesses that are specific to this industry that can support our youth” (4.4.2).

Industry. The Chairman of Chamber of Commerce and Industry of Ermera District responded that research contribution from academic to the coffee sector have not been seeing consistent, as he explained;

“So far, we have not seen any research go for publication from our universities related to this area. Perhaps they have done several studies, but they have never invited us to be in their seminars or part of their research. I wish academics could be involved in this industries productivity and support us though research and human resources development” (4.4.2).

Academic. The Dean Faculty of Agriculture of National University of Timor-Leste in his responds he acknowledge that there's no specific research has been publicity but he revealed that they have done several cooperation with the farmers to improve the coffee quality, as he explained;

“There are a couple things that we do to help coffee farmers. We do training for farmers about how to manage their plantations, we collect coffee samples to do analysis in our labs to detect problems faced by the farmers, and our faculty is focusing on getting graduates knowledge in management and industry to support this industry in the market. We also work with the Coffee Institute of Timor-Leste to do maintenance on coffee plantations in the Ermera District”(4.4.1).

The Rector of East Timor Coffee Institute responded that his institution has established a department that only focuses on coffee as he quoted;

“We have an agronomy department, which focuses on developing the coffee industry, we teach from basic to final production such as; preparing seeds, planting, harvest, and post harvest. We also offering agribusiness program to educate student to learn how develop their capacity in coffee business industry by produce quality coffee and build their own coffee characteristic and then encourage them to apply their knowledge in their community because of them from coffee farmers family” (4.4.1).

- Association

Associations are defined as the organisation that has respectability to share information and network to the coffee entrepreneurs, include being proactive in protecting the industry, monitoring the coffee industry progress and giving assistance to develop the coffee industry.

Coffee entrepreneur. Three participants responded that association role quite productive, its referred to the association program for coffee cupping competition every year which is also involve international coffee expert as the judges, the competition is been held to gain spirit of the farmers and coffee entrepreneurs to improve their coffee quality (4.5.1), the other three participants respond that coffee association existence did not giving significant impact to develop the coffee industry, as they never hear about the coffee cupping competition and other program of the association (4.5.2), another six participants are responds that they have never heard anything about the existence of the coffee association, as the Ms.Valeria from Fresh Daily Amore Coffee Shop Stated;

“ This is the very first time I hear about coffee associations in Timor, I would like to visit their website or their social media page or blog if it does exist” (4.5.3).

Government. The General Director of The Ministry of Commerce and Industry responded that the coffee association is still developing their program as they have submitted their proposal to the government and he added;

“The coffee association is still doing their work. Recently we receive their proposal looking for our support, we know that they are new and their programs are still under developed but we hope to contribute to support them in any terms” (4.5.1).

The Director of Training Center For Small Business and Entrepreneurship responded that coffee association currently is more focusing on how to support and develop the farmers and link them directly to the international buyers or promoting Timor coffee by inviting international expert to visit the farmers (4.5.1). The Director of Human Resource of Institute of Development Small

Business and Entrepreneurship responded that the coffee association doesn't socializing their existence and it caused lot confusing of what is the role of this association (4.5.2).

Non-profit. The Director of East Timor Development Agency responded that coffee association has done lot of good work such as held coffee cupping competition every year to promote Timor coffee internationally and he suggest that;

“ I think they need to advertise their program to the public more about what they do. Not many people understand their program ” (4.5.1).

The Maubere Coffee Director responded that coffee association are important and he revealed that his organisation also involve in the beginning to found the coffee association but due to financial condition impact to coffee association progress as he explained;

“ As we know the association has had difficulty implementing their programs due to their financial situation. They have been trying to raise funds from membership and looking for support from the government. They do have programs such as visiting farmers, donating tools to them and holding a cupping competition every year. I think they have to be more creative in designing their programs and look for what is the priority to be implemented ” (4.5.1).

Industry. The Chairman of Chamber Commerce and Industry of Ermera District responded that coffee association facing limited resources to develop their association therefore the productivity of this organisation is up and down (4.5.1).

Academic. The Dean Faculty of Agriculture of National University of Timor-Leste revealed that coffee association should put more effort to develop their program to contribute to the growth of the coffee industry as he mentioned on his interview;

“We once had been invited to a seminar of theirs, but we never heard from them again. As I have observed during the last few years the association is not really proactive in their programs. We do hope though that they can work with us and other organisations to create powerful programs for these up and coming entrepreneurs” (4.5.2).

The Rector of East Timor Coffee Institute responded that the coffee association's role is important but they are struggling with financial conditions which impact on their performances (4.5.1).

- Partnership and Collaboration (P&C) among Pentahelix parties

Partnership and collaboration (P&C) among Pentahelix parties are defined as the instruments to measure the cooperation between coffee entrepreneurs with all parties that involve in the coffee industry, and to exam effectiveness of the cooperation, this question specific to seven sub questions as below:

- a. Type of existing P&C

Coffee entrepreneur. Four of participants are able responded that they have partnership with the supplier, where the cooperation are more to as buyer and seller between both side which bring benefits in terms of price, quality of the coffee and time delivery (4.6.1.1), Two of participants

responded to collaboration which they have with non-profit agency to receiving grant for coffee machine to improving their business, as they stated;

“ De Fatima Coffee; I am grateful for our collaboration with the non-profit agency, when they came to visit my coffee shop and find out that our coffee machine is not suitable they ask me to apply for grant and this is really help my business, because the coffee machine with this high technology are very costly ”, and Ms. Eulalia da Cruz from Dare Cafe Memorial explain that the collaboration where she had with the no- profit agency are really supportive and positive for her business, after receiving grant for coffee machine with high technology really improve her business ” (4.6.1.2).

The Owner of Atsabe Coffee responded that he has establish partnership and collaboration which collaboration with non-profit agency in area of production where he had financial grant to support his coffee center production and have been establish partnership with buyers from UK, New Zealand, and Australia, which enable his company to export coffee with very small risk which they payment are made it in advance from the buyers before the coffee are shipping out (4.6.1.3).

The other six participants responded that they have not yet been in collaboration and partnership in any terms (4.6.1.4).

Government. The General Director Ministry of Commerce and Industry responded that partnership and collaboration between cooperative coffee Timor (CCT) and cooperative (NCBA)

from USA during 30 years for exporting Timor coffee to USA could be one of the example to be adopted, and its really positive because give benefits to the farmers and the buyers as well (4.6.2.2).

b. Expectation for the fit type of P&C

Coffee entrepreneur. One of participant responded to only want to have partnership where will focus on distribution to national customer such as government or other institution and export to international buyers (4.6.2.1), one of the participant respond that currently the collaboration such as training in management, entrepreneurship program and optimizing staff skills in hospitality and barista are needed (4.6.2.2), the other ten of participants responded that partnership and collaboration are expected to be involved to their business which will help to improve their capacity and capability for managing their business such as training, workshop, subsidy, loan access, network and other knowledge that related to coffee industry (4.6.2.3).

Government. The General Director of Ministry of Commerce and Industry responded that the longest partnership and collaboration that still exist are cooperation between Cooperative Coffee Timor (CCT) and NCBA (USA cooperative) which has been established for 30 years, the CCT responsible for providing coffee to export to USA and the NCBA is not only as a buyer but also support the subsidy for the farmers to do maintenance for their coffee plantation to produce high quality hybrid coffee, and the government expecting the national entrepreneurs could learn for this method of partnership and collaboration (4.6.2.3), The Director of Training Center For Small

Business responded that the partnership and collaboration where has been applied by his department is internship cooperation which the beneficiaries send it to Indonesia to do specific training for couple weeks and return to implemented to their business in Timor-Leste and to be successful for achieving their plan (4.6.2.3), on the other hand The Director of Human Resources of Institute Development of Small Business and Entrepreneurship Timor-Leste revealed that government has provide lot of opportunity of partnership and collaboration to the entrepreneur such as training, subsidy and access to loan, but there are problem in the mindset of these entrepreneurs, and his stated;

“ Most our entrepreneur doesn’t have business mindset or entrepreneurship mindset, there are too much dependency of gifts wish, which lead them to failure in their business, for example our national bank central have loan program for small business with interest less than 7% but until today only 1 to 5 candidate are taking risk to apply for loan, and our ministry of industry and commerce also have program for soft loan with interest less than 4% but still didn’t produce best result because our entrepreneur wanting everything for free” (4.6.2.3).

Non-profit. The Director of East Timor Development Agency responded that by working together with government and industry such as coffee shop are essential to develop the coffee industry, as his organisation will produce more skillful students to contribute to this field, with collaboration through scholarship and subsidy are expecting to be held in the future (4.6.2.2), on the other hand the participant from Maubere Coffee responded that long term cooperation are needed to sustain the coffee industry and the government role to gathering all stakeholders to be walk in the same line is with collaboration and partnership are needed to be consider (4.6.2.3).

Industry. The Chairman of Chamber Commerce and Industry responded that partnership and collaboration in capacity building are the most important part to grow this industry as he stated;

“I think there needs to be way more training and capacity building going on. This can continue to improve the quality of work and the consistency of supply to maintain the standing of the industry”(4.6.2.3).

Academics. The Dean of Faculty Agriculture of National University of Timor-Leste responded that partnership and collaboration in capacity building such training, monitoring for the entrepreneurs could be effective to solve this puzzle (4.6.2.3), on the other hand The Rector of East Timor Coffee Institute responded that partnership and collaboration in education and financial support have to be prioritize, and these two method should be applied in the right pattern (4.6.2.3).

c. Expectation for involving other parties

Coffee entrepreneur. Majority of the participants responded that government through Ministry of Commerce and Industry and Bank are expected to work closely with the small business to facilitate financial access such as providing soft loan and subsidy, and training on the other hand of the participant from The Black Box Coffee revealed;

“ I hope government will support us by simplify access for loan, it will supporting our business to growth for the future ”(4.6.3.2).

Government. The participant number one responded that all parties were involved in coffee sector should work closely to enhance the growth of the industry, and the government will focus on build the infrastructure as the commitment to support the coffee industry (4.6.3.1), the other two participant respond that the contribution from government and non-profit have been considered positive but it still not enough to accelerate the fourth of the industry and hope other organisation such as academic, association, and industry to take significant action to support this industry (4.6.3.1).

Non-profit. The participant number one responded that government and private sector are expected to investing in the coffee country through human resources development which will impact significantly to the growth of the industry (4.6.3.2), the participant number two responded that private sector at the industry level should giving more attention to coffee sector in Timor, because most of the big investment are foreigner (4.6.3.2).

Industry. Participant number one responded that government and academic should proactive to facilitate educational program for the coffee entrepreneur, and he added;

“Young entrepreneurs need to be educated through training and workshops and it is the government's duty to facilitate the access to loans and subsidies” (4.6.3.2).

Academics. The participant number one responded that government, university, researcher and vocational school have to involve intensively to support the coffee industry (4.6.3.2), the participant number two responded that all parties have to work side by side, farmers, entrepreneurs, government, non-profit, university, as he stated;

“The farmer should be seen as self entrepreneur, we need to educate and supporting them, this will help them to not turn their coffee plantation to other commodity because of frustrated with the coffee price game” (4.6.3.2).

d. Expectation for the role of other related parties

Coffee Entrepreneur. Majority of the participants responded that entrepreneurial training and grants are expected to be provided by the parties such as government, academics, non-profit, and association to improve their business, especially in terms of capacity and capability program (4.6.4.2).

Government. Three of the participants were able to responded that business training should be prioritized in this sector, as the biggest challenges the coffee entrepreneur has at the moment are business mindset and knowledge (4.6.4.1).

Non-profit. Participant number one responded that a sustainable program for human resources and access for loan should be prioritized in this industry (4.6.4.1), on the other hand the second participant responded that improving coffee quality and quantity will contribute to massive progress of the industry (4.6.4.1).

Industry. Participant number one responded that currently their organisation has run program to support vulnerable woman to be involved in the coffee industry and he added;

“We have work with private bank to open loan access for this program and hopefully we can achieve our plan in this year” (4.6.4.1).

Academics. Participant number one responded that educational programs and workshops will be their focus in the future to contribute to the coffee industry (4.6.4.2), the second participant responded that programs such as business training and entrepreneurship will be added to their institute to reinforce the coffee study (4.6.4.1).

e. Expectation for the role of Pentahelix parties

Coffee entrepreneur. The majority of participants were able to respond that collaboration and partnership does really important to improve their business and currently, they are hoping to have the training, workshop, grant, subsidy, and access to loans which can be provided by the agency or government and non-governmental organisation to support their business, as Erick from W2 coffee shop explained;

“We really hope government can see our existence as opportunity to contribute to the our national economic, and supporting us to achieve our goals will be benefits our society and our country” (4.6.5.1).

Government. Three of the participants responded that the government will support the coffee industry including the farmers and the entrepreneurs by facilitating training, and promoting their coffee product at national level and international expo (4.6.5.1).

Non-profit. Participant number one responded that to work closely with government and industry will be the best expectation for producing quality candidates to participate in coffee industry and as they will also upgrading their method of teaching and the curriculum for training to lift up the their quality (4.6.5.1), on the other hand the participant number two respond that as they have work in this industry for over than decade, they will maintain their quality of work and hope to work with the entrepreneur or any private sector to promoting the coffee industry (4.6.5.1).

Industry. Participant number one responded that currently to work closely with the bank for providing financial loans to vulnerable women to run their business in the coffee industry are essential and with expectation to have the support from the bank (4.6.5.1).

Academics. Participant number one responded that program such as training, workshop are really important to support the entrepreneur and as the universities have to provide more research and assessment to this industry with program study in entrepreneurship will support this industry (4.6.5.1), the participant number two responded that currently the most important thing to do was to establish communication between, farmers, entrepreneurs, government, to find out what is the

essential part to develop in this industry, he stated “we have to understand what is happening in this industry, then we can start develop it with the right program” (4.6.5.1).

f. Advantage, opportunity, and strengths of partnership & Collaboration.

The questions that were explained in the previous chapter regarding the advantages of the collaboration Pentahelix were asked in an appropriate and structured manner to the speakers, including the impact felt between the five parties working together in the coffee industry, so that the answers were obtained as follows,

Coffee entrepreneur. Majority of participants are able to responded interested in partnership and collaboration to strengthening opportunity in business knowledge, financial aid, grant, access to international market, reduce coffee import, and cooperation, as few the participant has experienced partnership and collaboration explained, De Fatima Coffee “*I really thankful for partnership and collaboration where I have been experience with non-profit agency which improving my business by providing grant with great technology of coffee machine that has impact to growth my business*” (4.6.6.1).

Government. Three of participants agreed that there will be lot of advantage in partnership and collaboration cooperation as the participant number one stated;

“It will help us to implement government programs, and also improve our economic situation and there are so many opportunities such as access to the global market and knowledge exchange also will build a sustainable cooperation for the future which contributes to human resource development especially in the coffee industry” (4.6.6.1).

No- profit. Participant number responded that through partnership and collaboration will create more opportunity to grow the coffee industry as he explained;

“If all parties work together it will achieve the plan according to its needs, like our organisation that has appreciated by the industry as they come to recruit our student”(4.6.6.1).

The participant number two responded that partnership and collaboration will result long term cooperation which impact to social change and profitability to the society (4.6.6.1).

Industry. Participant number one responded that partnership and collaboration will ensure the mutual benefit between all parties and to develop a suitable program that can result positive to the coffee industry growth, especially for the entrepreneur in Timor-Leste that not well educated (4.6.6.1).

Academician. Two of participants responded that with partnership and collaboration will bring lot of benefits such as exchange information, collaborate as team work to solve the problem, and it will be effective in fixing the errors that have happened for so many years (4.6.6.1).

g. Disadvantage, threat, and weaknesses of partnership & collaboration

The questions that were explained in the previous chapter regarding the disadvantages of the Pentahelix collaboration were asked in an appropriate and structured manner to the speakers, so that the answers were obtained as follows,

Coffee entrepreneur. Eight of participants responded that there's no risk in the partnership and collaboration as long as the cooperation in the right term (4.6.7.3), five of participants responded

that conflict of interest might be the obstacle in partnership and collaboration (4.6.7.2), three of participants that government regulation and political instability can caused the weakness of the partnership and collaboration (4.6.7.1).

Government. Participant number one responded that temporary partnership and collaboration could be the weakness of resulting inconsistent progress (4.6.7.1), on the other hand two of participants responded that policy change could be the challenge to applied partnership and cooperation effectively (4.6.7.1).

Non-profit. The participant number one responded that the challenge is other stakeholder think that non-profit are making profit for its organisation and this became obstacle for non-profit to establish partnership and collaboration with the government, as he stated;

“I think there is a wrong perception about our status as a non-profit. Most of the challenges come from the fact that the government is not willing to support us because they think we are making a profit. The fact is we are not we only depend on donors, we would have to charge the students if our financial status couldn’t sustain to run our programs “ (4.6.7.1), the second participant responded that appropriate regulation should be added to the partnership and collaboration to avoid loss of trust and dispute (4.6.7.2).

Industry. Participant number one responded that political interest or motivation to intervention in any partnership and collaboration could lead to failure of any cooperation as he stated;

“As we have seen in Timor when the political parties involved in this process have different points of view or different directions they want to take a project, it will cause the plan to fail. We

have had this experience for many years, there have been a lot of programs that could not be sustained or produce good results because of differing political views rather than focusing on the results” (4.6.7.1).

Academics. The participant number one responded that conflict interest could be the weakness of the partnership and collaboration to be unsuccessful, as he explained;

“I think the greatest challenge is when there is a conflict of interest for each party. We hope we can put everything in agreement and we will work based on the agreement as professionals and not go off track” (4.6.7.2).

e. External Factor: PESTLE (Macro)

Pestles are defined as elements which influence the development of the coffee industry such as; Politic, Environment, Social, Technology, Legal and Economic.

- Politic

Coffee entrepreneur. Majority of participants responded that political instability in last three years has affected their business activity which lead to significant decline in profitability, as the coalition government at the parliament broke up and couldn't form ideal coalition to run the new government terms, as The Coffee Shop Owner Doce De Tentacao stated;

“We are struggle with this situation since the government couldn't handle economic of the country properly has result everything going so slow, there's not many customer come to drink our coffee as usually” (5.1.2).

Government. Three of participants agreed that political condition is not supportive in the last 3 years, and it caused the development in the country going really slow, as participant number two stated;

“The political situation recent years less supportive for entrepreneurs to develop their business due to lack of integration of the development economic policies into one” (5.1.2).

Non-profit. The participant number one responded that the political condition considered less than favorable due to there’s not much change in coffee industry, especially in area of capacity and capability program and he added;

“I hope government and politician in the future will have a firm vision to develop the coffee the industry”(5.1.2), on the the other hand the second participant responded that the Timor has one the best organic coffee but unfortunately agriculture sector is abandoned during last 20 years event though the government has making agriculture as first priority but the result are considered inconsistent (5.1.2).

Industry. Participant one responded that political instability and inconsistent leadership caused massive negative impact to the country development, where most of the political decision doesn’t benefits the economic of the country as he stated;

“The impact of this is lots of unprofessional decisions made to change a program or policy every time there is a government shuffle, and we have had many lately. The result being that one program has not been implemented 100% before it is abandoned and there is a focus on another” (5.1.2).

Academics. Participant one responded that the government does support the coffee industry by implementing coffee plantation maintenance with the farmers but he acknowledge there's no program for coffee entrepreneur (5.1.1), on the other hand participant two responded that government contribution on coffee industry are considered less, he mentioned;

“There's no specific funds every year where allocated to build this industry such as fund for infrastructure, training, or support the coffee farmers, and coffee entrepreneur, and I think this why the industry still cannot produce best result” (5.1.2).

- Environment

Coffee entrepreneur. Majority of the participants responded that Timor has perfect place to develop coffee industry as the country landscape suitable for its organic coffee to growth naturally and the ecosystem that surround the coffee also really benefits the coffee plantation, as the Dare Cafe Memorial explained;

“Timor has the best environmental for coffee to be produced as the treatment not that complicated and it's also easy to sell coffee because the price is affordable for anyone to buy” (5.2.1).

Government. Participant one responded that Timor has great potential environment for coffee industry, and he added there are few thing should be improved to facilitate the coffee entrepreneur to be skillful such as training, knowledge, technology (5.2.1), participant two responded that environment are really supportive for coffee industry to be developed as a business opportunity and by replanting the coffee could produce sustainable quality production (5.2.1), on the other hand participant three responded that Timor environment are suitable for

long term coffee production and the organic coffee that Timor had is considered as featured product, the only thing that should be developed is the infrastructure (5.2.1).

Non-profit. Participant one responded that the environment for coffee industry are favorable, as Timor has its own coffee identity or call hybrid Timor, but the opportunity for entrepreneur to improve their skill still considered less as he stated;

“Only access to learning is still difficult because there’s not many facilities or institutions that are focusing in this area, but they can learn from books or the internet”(5.2.1).

The participant two responded that Timor has great ecosystem for coffee industry and he added;

“Timor is really suitable for this business, as we can see Timor has the best altitude, landscape structure and the best climates for coffee to grow perfectly. We are not like other countries that have poor water and other problems to take care of the coffee. Timor already has everything, the only thing we need is to do maintenance to prevent wild grass from growing around the coffee trees” (5.2.1).

Industry. Participant one responded that environmentally Timor is suitable for the coffee industry and its really conducive for entrepreneurs to build their business with providing a training center for entrepreneurs would help them to be more creative in managing their business (5.2.1).

Academics. Participant one responded that in order to achieve development of coffee industry, the university and other organisation must work intensively to design a suitable training program to support the entrepreneurs which will motivate them to achieve their plan(5.2.1), participant

two responded that Timor is a small country with very small population, and the coffee is a potential industry for Timorese but he added;

“We need to focus on the stability of the country, either politically or economically, which will attract more customers to our country and this will bring more contribution to our economy through the coffee industry” (5.2.1).

- Social

Coffee entrepreneur. Majority of the participants were able to responded that coffee become as social part of Timorese life, coffee also become as iconic beverage for cultural ceremony and as a gifts or presents for tourist and this become huge opportunity for these entrepreneurs to involve in this business industry, as Brother Coffee Shop owner explained;

“Timor has one of the best selection organic coffee which make coffee become popular beverage in the country” (5.3.1).

Government. Participant one responded that coffee is suitable with the social and ecosystem in Timor, it also fit with cultural aspect where people really value coffee as their favorite beverage (5.3.1), participant two responded that coffee is really supportive for business aspect as majority of the farmers in the country dominated in coffee sector (5.3.1), participant three responded that coffee are biggest commodity in the country and its become favorite beverage since people consume it in daily life (3.5.1).

Non-profit. Participant one responded that social conditions in Timor are really supportive to develop coffee business as most of its people love coffee, and he added;

“Coffee is not considered just a beverage in Timor but its part of the culture. Whenever you go to visit someone or are in a cultural event, coffee becomes the primary compliment for us. The only thing left is people still don’t know much about coffee’s value. Like that coffee is good for the heart and the caffeine in it is an energy booster, but socially people in Timor are familiar with coffee” (5.3.1).

Participant two responded that 60% of the population are farmers and coffee are the biggest commodity and this makes coffee easy to find and become a popular drink in Timor (5.3.1).

Industry. Participant one responded that demographically Timor has the perfect structure land to grow hybrid coffee for coffee and majority of the population in rural areas are coffee farmers, and he added;

“It is also a large part of Timor’s culture, as is evidenced by it being present in every ceremony or cultural event”(5.3.1).

Academics. Participant one responded that the landscape are suitable for coffee to growth in Timor and in social aspect is really conducive as coffee become part of cultural icon drink (5.3.1), participant two responded that as the with altitude 800 meters to 1500 meters from the ground surface is really benefiting coffee to grow perfectly in Timor, the huge potential also can see from the mountain area where surrounding by trees that protecting the coffee from harms, and he added;

“Now depending on creativity of the farmers and entrepreneurs to develop this huge potential commodity to be successful industry”(5.3.1).

- Technology

Coffee entrepreneur. Four of participants were able to responded that they have been equipped with advance technology such as coffee machine to make coffee espresso, late and cappuccino in capacity of commercial production and able to adopt coffee shop management system, as most of them has been experienced working in coffee shop and also receive grant (5.4.1), on the other hand nine of the participant still run their business with non business plan concept orientation where the adoption of technology is considered not conditional which still equipped with coffee non commercial coffee machine where only able to produce less 20 cups per day (5.4.2).

Government. Participant one responded that lack of technology has impact on coffee industry growth, as most of farmers and entrepreneurs still work under traditional way to produce coffee which impact to the quality of their business (5.4.2), participant two responded that technology knowledge in coffee industry are really necessary to be adopted by farmers and entrepreneurs as it will produce good quality and increase the quantity (5.4.2), participant three responded that currently majority people in Timor only understand drink coffee in traditional way which mean not using technology to make coffee drink, and he added;

“Our entrepreneur should creative to respond to this situation they need to do innovation on offering coffee to the market, maybe produce other variant such as coffee 3 in 1 or and etc...” (5.4.2).

Non-profit. Participant one responded that technology is the biggest obstacle for coffee industry where there’s no access to get technology in the country such as machine or

other tools that related to coffee industry (5.4.2), participant two responded private sector have to invest in technology to provide access for entrepreneur and farmers to improve their business(5.4.2).

Industry. Participant one responded that technology become major issue in coffee industry as most of the farmers still didn't know how to utilize technology and he explained;

“As we know that currently everybody have phone and able to access internet but unfortunately these farmers and entrepreneurs did not use this technology to learn something new such as go to YouTube to learn how to treat coffee plantation or learn business plan for free in online” (5.4.2).

Academics. Two of participants responded that access for technology in Timor especially for coffee industry almost 0% which caused farmers and entrepreneurs couldn't produce good quality coffee to be offered in the national market and its impact on lost in competition with imported coffee which came with nice packaging and good flavor and he added;

“I hope private sector will invest in the technology sector to make possibility for farmers and entrepreneurs to do modern coffee processing using advance technology to produce high quality coffee and able to compete in the national market and exporting their product in their own packaging and brand” (5.4.2).

- Legal

Coffee entrepreneur. One participant responded that process of form company in Timor is not really expensive in terms of issuing business license (5.5.1), on the other hand majority of participants responded that regulation and administration really complicated,

especially in inspection for coffee shop safety and regulation and tax report, as one the participant from De Fatima coffee shop stated;

“We are struggling when it comes to regulation and license renewal, as the administration is really complicated which takes time and effort just to renew the business license” (5.5.2).

Government. Majority of the participants responded that the legal aspect has been designed according to rules and law that are vigorous in the country which defend the right of its citizens to form their business and also to protect them from any harm of miss orientation or criminals acting against the system (5.5.1).

Non-profit. Two of participants responded positively regarding the legal aspect and participant one added that,

“Since the government launched a new system for tax report online several months ago make everything quite simple in order to do it in a physical way few in the previous time” (5.5.1).

Industry. Participant one responded that the current existence regulation need to be revised or amendment to more flexible and as he explained;

“I think a major step would be to simplify the process of getting a license for a small business. This will attract more young people to get involved in this industry and also empower their desire to learn about coffee”(5.5.2).

- Economic

Coffee Entrepreneur. Majority of the participants were able to responded that economically Timor has potential for coffee industry to be developed as the coffee organic coffee grow naturally and the coffee price also considered cheap, beside that most its population are coffee drinker, but in the last three years the country facing political instability due the indifference political mission of coalition leader which caused the economic of the country going slow and the impact of the pandemic has affected coffee industry industry as the lockdown is on and off multiple times, but the coffee entrepreneurs revealed that people still come to buying their coffee even though not as usually, as the participant from Laletok Coffee added;

“Our economic currently not that so good as previously but we are still optimist as the customer still came to buy our coffee” (5.6.1).

Government. Three of participants were able to responded that Timor economic are supportive for coffee industry as majority of the farmers produce coffee every year which very potential for entrepreneur to develop their business idea easily because coffee are easy to get in Timor with accessible prices, the participant one acknowledge although the economic condition currently not really good but coffee industry is considered as one of the big opportunity to be developed as he added;

“Our economic condition is favorable for this industry, but the dynamic of political change over the last five years has caused destruction” (5.6.1).

Non-profit. Two of participant responded that in terms of economic Timor has no doubted for coffee industry since the coffee price is cheap , easy to get business license and social aspect also really supportive, the only thing that should be concerned are human resources development in this industry which still considered as the biggest challenge to improve this industry, as participant two added;

“The government has to look at this industry as a priority, especially in the human resources, we need to invest in human resources, access to loans for small business and assessment”(5.6.1).

Industry. Participant one responded that the economic condition last five years has change a lot that implicated huge challenge to the farmers and entrepreneurs which caused depression in the coffee price, as he explained;

“Well, we know what does not work. Over the last five years we have not made much progress economically due to the political instability. It has slowed down the development of the entire private sector. In addition, farmers have been getting frustrated about the regulated coffee prices which are not giving many benefits to their business. Thus, many of them are switching their agricultural activity to other commodities and leaving coffee behind”(5.6.2).

Academics. Participant one responded that economically is favorable to develop the coffee industry, the things that should be obtained by the entrepreneurs are creativity and innovation to develop their business (5.6.1), participant two responded that Timor economic is considered suitable for coffee industry as the 70% of the farmers in the country are from coffee sector, this mean by focusing on developing the quality and the quantity of the coffee through proper knowledge, technology and good quality control will surely produce best result and will contribute to the economic of the country (5.6.1).

Prospect and Obstacle

Agricultural crop manufacturing typically has verified to have a superb and big effect on monetary boom besides for espresso manufacturing. Declines in agricultural manufacturing have for this reason been followed by declines in GDP, to attain

sustainable monetary boom, that is a prerequisite for development, this boom needs to be primarily from the rural zone after which need to unfold to the opposite sectors through various linkages (Food and Agriculture Organization, 2012).

- Opportunity

Coffee Entrepreneur. Majority of coffee entrepreneurs were responded that there's medium until high opportunity for coffee shop to grow in Timor-Leste, the situation in Timor-Leste is favorable for attainment a goals, based on the fertile soil, and economic condition that keeps growing up, also there's a hope if the world's trade market will be opened to Timor coffee due to their unique taste.

Government. All interviewers from authorities have been agreed that espresso enterprise could have a few opportunity, the interviewee is individual that paintings in authorities region that associated with the espresso enterprise, they all changed into certain that Timor's espresso can attain their first-class ability with aid from authorities and expanded in quality, additionally authorities changed into worried that they want standardization for Timor's Coffee to attain world's change market.

Non-profit. All participants from non-profit agreed that Timor's coffee industry has a high opportunity to increase their potential due to the unique taste, freshness and good business management, so they agreed that the government and non-profit need to work together to support small coffee businesses.

Industry. All participants from industry sector were agreed that Timor's coffee can reach out their max potential and have a high opportunity when they have standardization for coffee bean to reach world's trade market, they believed that Timor's Coffee has unique taste and freshness that different from other coffee.

Academics. All academicians were agreed that Timor's coffee has unique taste that different from other country, also they have a fertile soil and supportive environment for coffee plant to growth, academicians were hoping that government and all parties can work together to increase the quality of coffee bean through training for coffee farmers and exporters for them to gain more knowledge to increase the coffee's price.

- Threat

Coffee Entrepreneur. All coffee shop owners were agreed that they have to face some threat that imperil their business, due to the condition in the world's trade market nowadays, they face the volatile of coffee price and also pandemic that threatened their business, in the beginning of pandemic, they were forced to close their store and loss a lot of opportunities.

Government. Participants from government were aware that the situation in world's trade market were harmful to the small coffee business, there's unsure condition during the pandemic and the coffee price has been volatile.

Non-profit. The non-profit participants were agreed that there's a high threat for small coffee business, not only during the pandemic, but from the beginning of their business, the coffee price was too volatile and affect the coffee's chain stock, also the pandemic make it worse and the coffee price start to drop in the beginning of pandemic.

Industry. All participants from industry sector were agreed that they have to face a high threat due to the tight business competition, also the coffee price was following the price from world's trade market that makes the price is more volatile.

Academics. Academicians were stated that the coffee industry in Timor-Leste has to face a high threat due to their price is still depends on the world's trade market which is more volatile and disturbed the chain systems, also the coffee farmer and collector need to be given knowledge about how to storage coffee, so they can kept their coffee bean fresh and high quality.

- Business volatility and risk

Coffee Entrepreneur. Participants from coffee owner were agreed that coffee business in Timor-Leste is moving volatile due to the coffee price that set up by world's market, also during the pandemic, the coffee business has been experiencing

huge loss and forced them to change their business and their coffee shop place to be suit for health protocols during the pandemic.

Government. Almost all participants from government were agreed that coffee business has been very volatile these days, even tho they have a high chance for getting into the world's market, the unsure condition in politic in Timor-Leste also have big effect to coffee industry, specially when the pandemic take over the business, government was concerned to increase Timor-Leste's economic condition.

Non-profit. Participants from non-profit organisations were stated that the coffee business in Timor-Leste need to be increased through knowledge and proper technology, because coffee business in Timor-Leste started to moving rapidly to the unsure condition and coffee entrepreneur needs to be prepared to face the international competition with other countries to enter the world's market.

Industry. All participants from coffee business sector has agreed that coffee business in Timor-Leste were moving volatile during these days, not only because the political situation but also because the weather that unsure and the coffee bean quality from the farmer sometimes has decreased through unsure weather, also the coffee industry owners complain that some coffee bean from coffee farmers has gone rotten due to the bad storage.

Academics. All academicians were agreed that coffee business in Timor-Leste has moving rapidly during these days, some coffee shop has started to rise again after the pandemic hit Timor-Leste in 2020, the academicians believed that coffee farmers need to be gain more knowledge to increase their coffee quality and also started to using proper technology to increase their capacity and quality.

- Obstacle

Coffee Entrepreneur. Coffee shop owners were having a trouble due to the limitations of technology and knowledge to process coffee bean into ready to serve, and also how to keep the quality from the coffee bean through roasting process, they also stated that they need more training and funds from government to increase their business capacity and capability.

Government. All participants from government were stated that they have some obstacles in coffee industry because their citizen, specially people in coffee business had less knowledge and technology about how to increase the quality of coffee, some of participants in government office also said that Timor's citizen has lack of fighting spirit for their coffee to reach world's market.

Non-profit. Participants that work at non-profit organisations mention that coffee businesses in Timor-Leste need to get proper training and workshops, because coffee is the second largest income in GDP in Timor-Leste but coffee business has gotten less attention from the government.

Industry. All participants in the coffee Industry sector stated that the main obstacle that they struggle with is sometimes they get a bad quality coffee bean from a coffee farmer due to the lack of knowledge on how to store the coffee bean, and also there's an unsupportive political situation and no standardization for coffee beans.

Academics. Only one participants from academicians that stated there's main obstacle in coffee industry, which is the lack of knowledge and technology for coffee farmer that makes coffee farmer hardly to get high quality coffee bean, also the young generation of coffee farmer has lack of knowledge to taking care coffee plants.

- Current strategy and wayout plan to address to obstacle, threat, and problem

Coffee Entrepreneurs. All participants from the coffee shop owner were not sure with the future due to the covid pandemic and unsure economic and political condition, but the common thing from them is they planned to search for training to increase their knowledge about coffee and fascinating about how to make a modern coffee.

Government. Participants from government office currently stated that government has planned a movement for coffee business in Timor-Leste, government was planning to give east funds from local banks and give their chosen citizen a training about coffee industry.

Non-profit. All participants from the non-profit organisation said that they were prepared to collaborate with the government to provide proper training and assessment in the coffee industry to produce good quality coffee and increase the coffee production in Timor-Leste. Business education needs to be held intensively to support the entrepreneurs, to teach about management, marketing, accountability, vision and mission, create their business plan, how to utilize technologies such as computers, internet, build their website, promote their products, learn tutorial form internet, joint coffee group forum.

Academics. All participants from academicians were stated that their planning for coffee industry in the long term is to create sustainability in economic for better situation to growth coffee business and prepared young coffee entrepreneurs with knowledge and skills to produce an unique and high quality coffee in Timor-Leste.

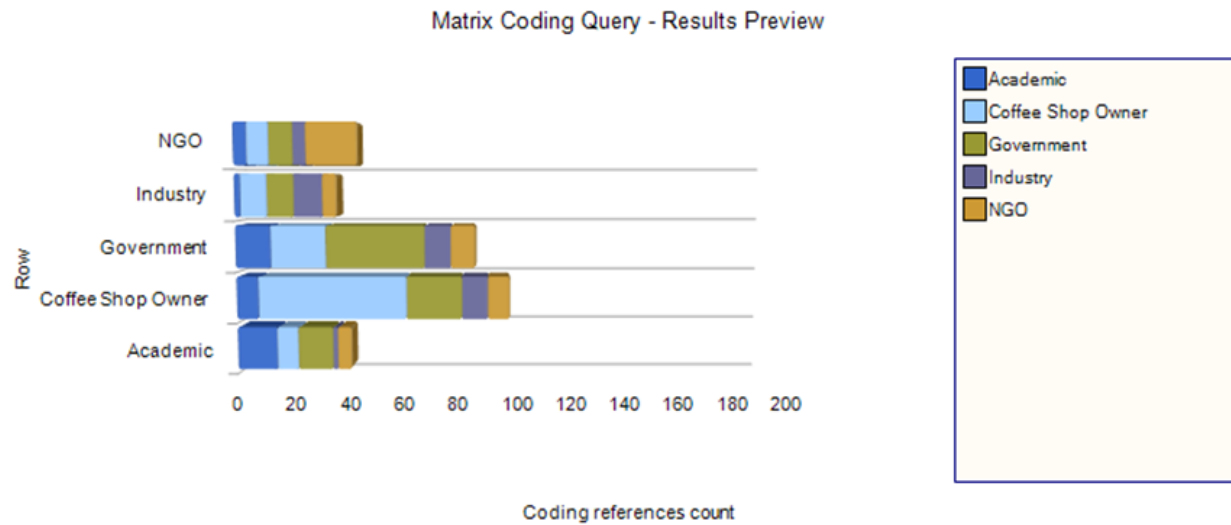


Figure 4.4.1 The Synergy Beetwen Five Parties

Source : Analysis

Based on the results of further analysis and study through interviews from the five parties in the Pentahelix (Entrepreneurship, Government, Community, Industry and Academics) it is known that the five parties are each related to each other, all parties cannot stand alone and require the five parties to work together (synergize) in Partnership and Collaboration, this is also shown by the great interest of entrepreneurs and the coffee industry who expect an effective partnership and collaboration to increase business and market opportunities for coffee. The form of collaboration and collaboration from Pentahelix, as previously explained, can have a positive impact as can the information obtained from sources, so that each party in Pentahelix collaboration needs to be able to function properly.

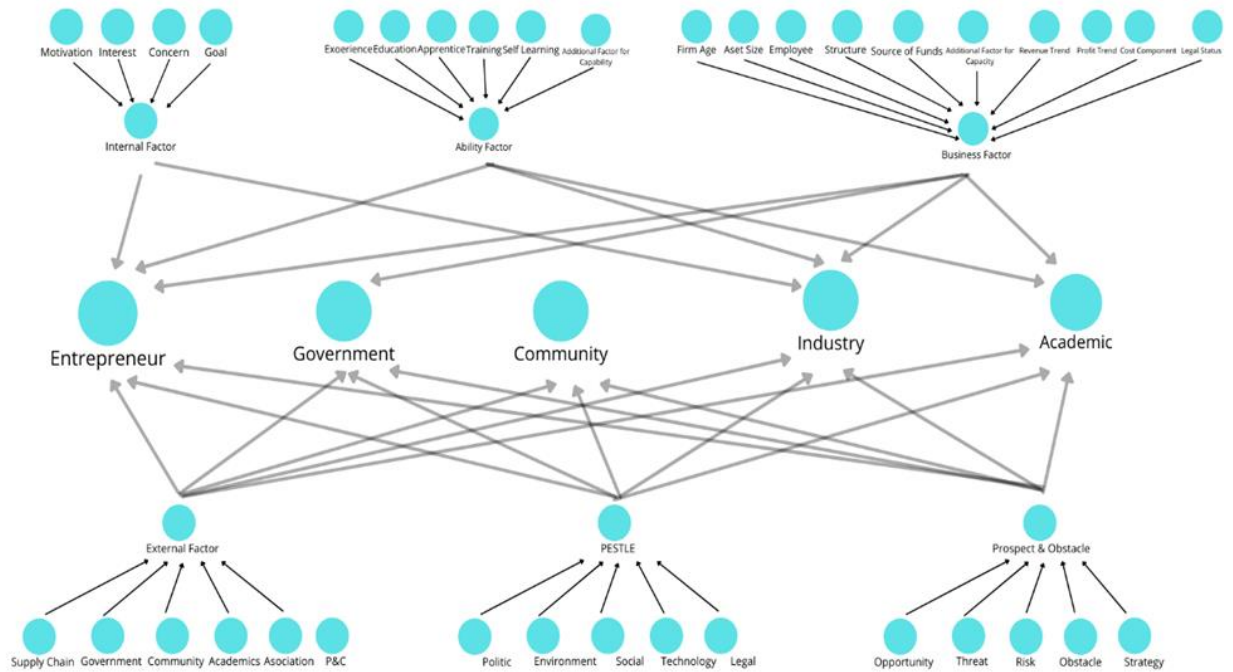


Figure 4.4.2. Diagram of Synergy

Source : Analysis

From the analysis above, there's enough proof about how the five parties supposed to be have synergy to each others, beside that, the absence of Partnership and Collaboration, makes the synergy become incomplete that makes almost all coffee shop owner and industry were agreed that government needs to relate to them and provide a knowledge from academics sector.

CHAPTER 5

DISCUSSION

5.1. Research Findings

The qualitative data analysis discussed in Chapter 4 reveals a number of important research findings, which include (a) internal factors, (b) ability factors; (c) Penta Helix Parties and Partnership and Collaboration; and (d) external factors.

a. Internal factors:

With the encouragement from internal factors, the development of EET will continue as it should, so that the following results are found,

The internal factors consist of motivation, interest, concern, and goal as the four central sections were faced by coffee entrepreneurs, an official government, nonprofit, industry, and academics in the process of developing the coffee industry. The results indicate that *motivation* is one of the reasons for coffee entrepreneurs to establish their business in the coffee industry in Timor-Leste, these entrepreneurs are willing to run their business even though there is a limitation of knowledge and skills. This result is considered positive as in the previous study According to Bandura (Bandura, 1986, p. 228), ‘unless people believe that they can produce desired effects and forestall undesired ones by their actions, they have little incentive to act.’ As he explained in another research (Bandura, 2002, p. 3), ‘Whatever other factors serve as guides and motivators, they are rooted in the core belief that one has the power to produce changes by one’s actions.’ In the context of entrepreneurship, no one can win the game if they do not play; namely, the success of an entrepreneurship journey depends on one’s willingness and desire to become an entrepreneur.

In line with the hypothesis proved that the interest represents one of the major factors to developing the business to the next level, most of the coffee entrepreneurs are confident that by offering a unique concept of a coffee shop to the market will achieve their plan, this result considered support as in the previous study according to Santoso (1993, in Agustina and Sularto, 2011) , interest is a tendency towards something high in the heart; passion; desire. Someone's interest in an object usually starts from the tendency of one's heart to that object.

The result in this study shows that concern is one of the characteristics of entrepreneurs involved in the coffee business, most coffee entrepreneurs realize that attaching ideas to existing resources will optimize the opportunity of success for their business, the result of this hypothesis is supported with similar research has shown that entrepreneurial characteristics play a key role in the entrepreneurship decision process as well as in achieving business success. Barba-Sanchez and Atienza-Sahuquillo (2011) found that personal traits, abilities, and characteristics influence the decision to become self-employed. In the general, the main entrepreneurial characteristics described in the literature reveal several common themes, including risk-taking (Gelard & Saleh, 2011; Jiao & Robinson, 2011) and innovativeness or creativity (Leitao & Franco, 2011; Kogut, Short, & Wall, 2010) . Other characteristics are optimism and self-confidence (Forgeard & Seligman, 2012; Hayward, Forster, Sarasvathy, & Fredrickson, 2010) . Attributes such as passion, creativity, perseverance, and selflessness were also considered to be prerequisites for entrepreneurial success (Rozell, Meyer, Scroggins, & Guo, 2011).

The result in this study shows that *goals* are an essential factor for an entrepreneur to accomplish their success, goals also a desire to accelerate entrepreneur action to achieve their vision. The data shows that entrepreneurs' goals lead them to manifest their plan to succeed in the coffee business in Timor-leste, as the study showed previously according to (*Fostering*

Entrepreneurship OECD 1998). It is also very adaptable which is one of the stimuli for the creation of EET in Timor Leste

b. Ability factors

The result of the study indicates that experience plays an important role for the coffee entrepreneur to organize their business, such as managing, business product, marketing, quality control, and deal with the customers, and picking the best quality coffee to be offered, this result supportive with the previous study according to Plaskoff (2017) which involve 291 Swedish marketers discover links among diverse career stories and the improvement of entrepreneurial expertise. In addition, locating evidence that the entrepreneurs' choice for exploring new opportunities vs. exploiting pre-existing expertise is crucial to consider to give an explanation for this process. They have a look at ends with a dialogue of the findings, together with recommendations for destiny research. Work experience is applicable for lots of human useful resource features such as selection (e.g., Ash & Levine, 1985), training (e.g., Ford, Quinones, Sego, & Sorra, 2006), and professional development (e.g., Campion, Cheraskin, & Stevens, 1994). Given the significance of labor reveling in human useful resource exercise and studies, it isn't always unexpected that a truthful quantity of studies has tested the idea and its dating with vital consequences such as job performance.

The result of the study indicate that formal education is needed for a coffee entrepreneur in Timor-Leste to be considered, especially in business and management, as the data showing that lack of knowledge in business caused their business not progressively developed, this result is similar to the previous study according to Dr. Harsh Mishra, associate professor, strategic management, Management Development Institute (MDI), Gurgaon statement as Dr. Harsh Mishra developed the formal education to support entrepreneurship in the developing country.

This result is also similar to a previous study according to Milevska (2012) Entrepreneurship education can help promote entrepreneurial and revolutionary culture in the world by changing mindsets and providing the necessary skills. Meanwhile, globalization, fast improvement of technology, and the lower cost of the journey have absolutely modified the character of work. In line of the hypothesis, the internship was one of the support methods to exercising an entrepreneur's basic skill of how to run a coffee shop. The internship experience is meaningful when there is a strong learning goal and the work experience is consistent with that learning goal. Those who participate in mandatory internships have more opportunities to hold full-time positions in the same place, which also brings greater satisfaction. This result is fondly effective according to the study from Nadim (2008).

The result of the study indicate that training and workshop are essential methods to develop creativity and innovation for the entrepreneur, such as business plan, business development, innovation, technology, business motivation, this will contribute to the success of the coffee entrepreneur, as the researcher found in the field most of the coffee entrepreneurs have not yet participated in any workshop or training, therefore, their run their business without a business plan, This end result isn't unexpected in mild of the truth that better level reviews are greater pricey and complicated, can simplest be finished after the training whilst trainees are already again of their paintings environments, and with the cooperation of many different organizational devices past the only liable for training (Abiad 2016; Kirkpatrick and Kirkpatrick, 2006).

The result of the study shows that self-learning is one of the most adopted methods by the coffee entrepreneur in Timor-Leste, this considered effective based on the data showing that these entrepreneurs are willing to operate their business based on learning from books and the internet, but the researcher found that these entrepreneurs learning in the very limited area, where more

focus on how to produce and make coffee instead of how to build a good business plan to manage and expand the business to growth, this result considered effective but need to explore and further improvement according to Kryspin (1974) self academic module may be used as a powerful teaching mastering tool in an academic psychology course. This result is also considered effective but needs to explore and further improved according to Nadim (2008). The results of the study indicate where additional factors that needed to be added to improve capabilities are really important for the coffee entrepreneur in Timor-Leste, such as research in business, knowledge, and access to loans. This result is parallel to the previous study from Rob (2014).

c. Penta Helix parties and partnership and collaboration,

In Timor-Leste, according to all interviewees, the supply chain for coffee is already structured, from the farmer until the coffee bean is ready to sell or consume.

Most respondents responded that they had never heard of a government program such as training, workshops, subsidies, or exhibitions running on the development of the coffee industry and that the regulations that the government applies to coffee shop businesses are considered complex. This relates to corporate licenses, inspections, and tax reports.

NGO, Most interviewees already know that there are NGOs in the coffee industry but a few of them said that they never heard or got help from NGOs, NGOs should be present and running to help people with their condition, The non-profit organization stands to bring about change in individuals or communities

Academics, Some interviewees stated that academics are supported to their business, but the rest of the interviewees stated that academics haven't presented yet, which is that academic roles are

needed in business development and human resources. According to M.J. Langeveld (1980)

Build and develop individual interests and talents for personal satisfaction and the public interest.

Help preserve the culture of the community. Instilling the skills needed to participate in democracy. Become sources of social innovation in society

Association in Timor-Leste for coffee industry only known by some interviewees and some of them was mentioned that coffee association in Timor-Leste has not run as it should be, this may lead to irregularity in coffee culture in the future, the association needs to bridge these differences by pioneering the occurrence of bipartite agreements between workers and employers, in addition, the association creates a conducive industrial relations atmosphere between entrepreneurs, the government and workers/laborers by carrying out efforts to foster, defend, and empower entrepreneurs in the field of industrial relations at both the level of the industrial relations and at the local level. international, national, regional, and at the corporate level as well as at the Industrial Relations Court level.

The partnership and Collaboration type that exists in Timor-Leste according to the interviewee is either partnership or collaboration. Only a few interviewees know that both partnership and collaboration exist in Timor-Leste. Timor-Leste's citizens demand that partnership and collaboration need to exist and be run to help people have a better coffee culture and business, they demand that all Penta helix parties are active in partnership and collaboration. The advantages of partnership and collaboration are increasing in their business, but there are also disadvantages of Partnership and Collaboration that worry Timor-Leste's citizens because of an internal government that is not stable.

With the Pentahelix collaboration in Timor Leste, the development of the coffee industry in Timor Leste has been seen

d. External Factors PESTLE analysis: Technology

Politic in Timor-Leste has not been stable yet according to the interviewee, East Timor's policy is being developed within the framework of a unified, semi-presidential representative democratic republic in which the Prime Minister of East Timor is the head of government and the President of East Timor is the head of state. Party system. Political risks are generally closely related to the governance and political and security situation of a country. Every act in a corporate organization is political, with the exception of charities or social organizations. These factors determine the proper functioning of a business organization. If the political framework conditions are favorable, business generally runs smoothly (Yamin, Muhammad, 2018)

The environment in Timor-Leste has a great opportunity for the coffee industry, according to all interviewees, agree that environment around them is a supporting environment, The enterprise surroundings have robust have an impact on the corporation's organization, in particular, whilst the enterprise international is now not restrained with the aid of using a country's territory, the shift from tough era to clever era and different essential modifications have an effect on regulations so that it will be taken with the aid of using corporation management (Lumkin, 2005)

Social conditions in Timor-Leste are really supportive for running a business according to all interviewees, The social surroundings could have a profound impact on the man or woman development. Social environmental elements additionally have an impact on someone to grow to be an entrepreneur, due to the fact it's miles extra pushed through seeing success pals grow to be entrepreneurs.

Technology in the coffee industry in Timor-Leste needs to be upgraded because the Modern generation is likewise influencing the excellent of the espresso being made through baristas. Baristas can now be greater particular with their artwork and craft. As such, the excellent of the

espresso brewed remains steady no matter the shop. There isn't any doubt that technological advances can play a critical position in lowering manufacturing fees in addition to contributing in different regions including excellent development and plant protection. Nevertheless, technological advances require investment, each in keeping good enough studies and extension infrastructure and in phrases of capital expenditure and suitable use of stepped forward inputs (Osorio, Nestor 2002)

Legals for the coffee business in Timor-Leste are quite difficult to solve, some coffee shop owners have complained about the difficulty of taking care of establishment permits and other legal matters. Business regulation is a system or felony device that regulates all sports associated with trade. The law is used as a juridical manner to govern people's behavior. However, the bureaucratic factor may be an impediment to the funding whether there are nonetheless matters along with the number of policies which are overlaps or contradictions and convoluted procedures. For this reason, it's far vital to reorganize the forms as a shape of licensing reform, wherein the association is executed via efforts to prepare, alter, control, direct, systematically alter licensing in line with the legal guidelines and policies

Economic conditions in Timor-Leste quite supporting coffee business, monetary modifications that have an effect on commercial enterprise encompass modifications inside the hobby price, salary costs, and the price of inflation (i.e. widespread stage of growth in prices). Businesses could be greatly advocated to enlarge and take risks while monetary situations are right, e.g. low hobby costs and growing demand. Perlman (2020) states that commercial enterprise marketers have to be capable of adapting to the environment flexibly and be capable of logically examining how micro small and medium companies are capable of life on properly in the critical era (Perlman, 2020)

5.2. Improving Entrepreneurial Capacity and Capability

5.2.1. Partnership and Collaboration (P&C)

The result of this research shows that partnership and collaboration in the coffee industry in Timor-Leste are still considered weak. Most of the coffee entrepreneurs assume that partnership and collaboration are still not important to be added in their business cooperation with the supply chain network, due to concern of agreement regulation and inflexibility, on the other hand, the entrepreneurs believe that they don't need more stock of coffee supply because their business still in the category of small business which can easily to get coffee in the traditional market.

On the other hand, the coffee industrialist who adopted partnership and collaboration is interested in joint coffee cooperative business. These entrepreneurs are able to take advantage of the coffee cooperative for information exchange such as supply chain and loans. However, this cooperation is not running well due to the management system at the cooperative being considered not professional which caused many conflicts of interest.

The university experts, community culture (Nonprofit) and the government agreed to encourage the entrepreneurs to adopt and take advantage of partnership and collaboration to improve their entrepreneurial capacity and capability. The roles of every party in the Penta helix method to supporting partnership and collaboration are needed to carry out with the concrete implantation, this will help to construct coffee industry from upstream to the downstream which will produce the better results of coffee business activity and will improve the capacity and capability of

coffee entrepreneurs that can synergies in partnership and collaboration between coffee entrepreneurs and the coffee industrialist in Timor-Leste.

The forms of partnership and collaboration of coffee entrepreneurs and coffee industrialist can be followed by pattern of coffee cooperative that has been exist and underway, but it need to be reform and adjust as follows:

- improvement and reform of management system of a coffee cooperative
- strengthening coffee cooperative by involved experts and independent
in making policy, in terms of planning, implementation, monitoring, evaluation, quality control, and development of coffee business,
- Establishment of a cooperative form has to be met with the needs of the coffee entrepreneur and the coffee industrialist.
- Improving the leadership skill and managerial skills of the members of the coffee cooperative.
- Improving administration skill, database management and system information to the cooperative leaders.

5.2.2. Technology

The participants in penta helix, entrepreneurs, academicians from university, experts from community (non profit), coffee industrialists, and the government basically have the same understanding about the important role of technology in developing capacity and capability for entrepreneurs. However the common problem in Timor-Leste are, the scarcity of technology in the country. This issue related to : (a) lack of tools and technology equipment , (b) lack of human resources that can operated and utilize technology equipment, (c) lack of technician and

mechanic that can do maintenance for the technology equipment and supply spare part for the technology, (d) lack of understanding regarding to utilization of technology information (internet, computer, online business workshop and online business course) for learning and practice to improve management capacity and capability.

There are three aspects of technology where it is considered important by the entrepreneurs to improve their entrepreneurial capacity and capability: (a) technology production, (b) technology producing, (c) technology information and communication. These three categories of technology are needed by coffee entrepreneurs in the coffee industry in Timor-Leste to improve and accelerate entrepreneurial development of entrepreneurial capacity and capability.

Following are mechanism that need to be adopted from the three technology roles:

- build a road map and functionality of the technology that essential for the coffee industry
- adopted model of the technology that easy to operated and less of maintenance cost, this is corresponding with the coffee entrepreneurs capacity in Timor where most of it are small business
- Entrepreneurship education and training program for the coffee entrepreneur and operational technology training for workers in the coffee shop industry including maintenance and utilization of information technology for marketing
- Resource sharing for technology equipment constrained by economic scale for efficiency

5.3. Developing Ecosystem of Entrepreneurial Education and Training (EEET)

There are the few problem that has become obstacle such as: a) difficult to design and arrange educational curriculum and training, b) program development which is part with the objective for short term, c) lack of facility and inexperience of the trainer in a practical method which has to

be matched with the real condition, d) the assistance of process incubation is running internally without involved expertise with experience in the entrepreneurship field, e) introduction of entrepreneurship knowledge not accumulated knowledge of collaboration and partnership in concrete method with start-up in the industry. The result of analysis and evaluation in this research shows that the entrepreneurial ecosystem is essential for the institution of Entrepreneurial Education and Training (EET) to be adopted. This become most of the failure that occurred by the EET program in producing skillful graduates to starting and developing their business, because of lack of attention to the role of the entrepreneurial ecosystem in the development of entrepreneurship education and training programs. This research proposed the model of traditional entrepreneurship education and training (EET) to the new model Ecosystem of Entrepreneurship Education and Training (EET).

The result in this research shows that the stakeholders are the key important parties in the Penta Helix, such as: potential coffee entrepreneurs, government, university(academician), community and culture(non-profit), and industry. These five stakeholders are the main parties in the group of Penta Helix which are responsible for the ability of the ecosystem to adapt with external factors (PESTLE) such as politics, economic, social, technology, legal, and environment. Each party in the Penta Helix is hoped to proactive in exercising their roles to anticipate external factors that affected the industry and adjust to the ecosystem for gaining benefits in every existing opportunity and to maneuver in avoiding every threat against the ecosystem itself. The important role of stakeholders as the key players of the Penta helix is to develop and improve entrepreneurial capacity and capability. whether direct or indirect the escalation will have an impact on the middle term or long term. These roles can be achieved through the development of entrepreneurship education and training programs.

The entrepreneurial ecosystem education and training are defined to develop the coffee industry in Timor-Leste which comprises five different elements such as entrepreneur, government, nonprofit, academic and association which play important roles to develop the industry. The ecosystem has been added to the new platform to ensure all parties that involve in the coffee industry to cooperate according to the needs of the industry and respond to obstacles that become challenges to the industry's growth.

Based on the explanation above of EEET can define as:

Entrepreneurship education and training program, which is operated systematically, comprehensive and integrative that will involve the pro-active of Penta helix parties in execution program from establishing standard of input, process, and output (outcome) to improve the effectiveness of entrepreneurial capacity and capability and to guarantee the success of sustainability of the pilot program and the development of business scale for the participant in long term program.

Picture 5.1 present model of EEET. This model cover three main domain as (a) credible institutions; (b) penta helix parties; (c) external factors.

5.3.1. Credible Institution

The credible institution for establishing EET is the institution that has been in conducive condition of entrepreneurship to fit the needs of young entrepreneurs/start ups with potential to grow. The credible institution responsible and accountable to provide educational and training service for entrepreneurship programs systematically, integrated to the potential start up entrepreneurs. To maintain the success of the EEET program will need the credible institution which has to support a management system, good governance, and credible organization, with

the good leadership and professional members support. Institution or Center of entrepreneurship education and Training: this entity has responsible and accountable to serve education and training for young entrepreneurs or potential participants with objective to motivate the entrepreneurs with proper knowledge and skill of business to applied to their business, the center of entrepreneurship education and training also will help to form spirit of the entrepreneurship to the young entrepreneurs to be able to faced challenges and obstacle on the process of running their business. Following are the main units in credible institution organization structure:

a) Department of educational and training,

Entrepreneurship education and training are categorized as entrepreneurship coaching programs according to Guth, William D., and Ari Ginsberg. "Guest editors' introduction:

Corporate entrepreneurship." *Strategic management journal* (1990): 5-15^[1]. These programs

supplicate imitation of strengthening the attitudes, knowledge, and advantage related to the object of entrepreneurship. They are primarily based on research indicating partial entrepreneurial behaviors do teach, learn, and begin within people's youth after culminating to younger or adult years, also to make them strong before practicing entrepreneurs. The entrepreneurship institution that currently exists in Timor-Leste's "Institute of development of small business and entrepreneurship (IADE)" needs to be developed based on the EEET model system.

b) Incubator of business and entrepreneurship;

The institution and organizations that offering training for entrepreneurship have

to equipped with business incubator and entrepreneurship department which will aim to support the start-up and young entrepreneur to develop their business and able to become

an independent entrepreneur that has strong character in faced business challenges. This will also to maintain the entrepreneur in the corridor of cooperation with backward and forward supply chain network. On the other hand the contribution of university and industry will facilitate assessment in business incubator and entrepreneurship programs to the startup and young entrepreneurs.

c) Department of research and development

The dynamic that occurred around the ecosystem of entrepreneurship always change, therefore the institution need to be facilitate with department of research and development which will proactive to anticipate the external change, and able to adapt with the new change of the ecosystem.this will affect to the progress of curriculum of training program in the future. This program can involve university, industry, and government to develop innovation and creation program to provide adding value product or services in coffee industry.

d) Department partnership and collaboration

Partnership and collaboration: this approach is beneficial to accelerate the entrepreneur in increasing their capacity and capability. The method of partnership and collaboration may take some forms such as cooperation, supply chain network, integrating market place center among entrepreneurs, and other necessary activity that positively will benefits the cooperation such as cooperate with the government agency for administration and bureaucracy, elaborate with the other stakeholder such as non profit, university, association for training, workshop, and course which will improve the capacity and capability of the the entrepreneurs. The role of all parties in penta helix is needed to establish a network among the coffee entrepreneurs

from the upstream to the downstream including other important sectors such as financial agency, education, and transportation.

e) Department of Technology

The technology consists of food or product technology; food manufacturing; information and communication. Technology adoption is also beneficial to accelerate entrepreneurs in increasing their capacity and capability. The technology will help the entrepreneurs to produce a good product, efficient for services and effectively to standardize the quality of product and service. Hence it will boost the market penetration faster and wider with the same standard of product and service. Many entrepreneurs have fallen into the trap in the growth stage when they are focusing on increasing the production volume but are not aware of keeping the standard quality of the product which leads to customer dissatisfaction. On the other hand, the role of communication and information technology is really important to marketing the products of the entrepreneurs into high selling points, but most of the entrepreneurs failed to adopt this opportunity to promote their business product in the market whether through online or radio broadcasting which caused their business performance does not grow as expected.

f) Department of institution development

The development of the institution has an important role in supporting the training management agency of entrepreneurship, to produce human resources that have the ability to develop their business structurally and integrated in a conducive entrepreneurship ecosystem which will result in a successful business innovation that will have adding value. The role of the government and industry are very important in supporting the

entrepreneurship institution to be more progressive in delivery training service to increase the capacity and capability of entrepreneurship of all members.

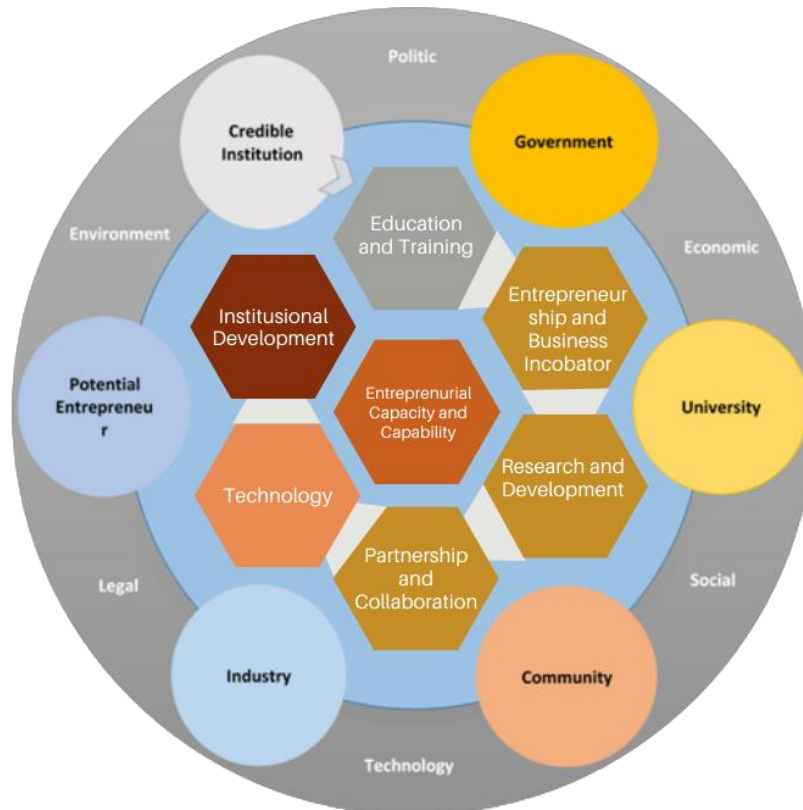


Figure 5.1. Model EEET

Source : Author

5.3.2. Penta Helix Parties:

The key parties have an important role to support and promote the entrepreneurs in launching and running the start-up. Their specific role, especially to connect among parties in the partnership and collaboration will help entrepreneurs to continue of the business sustainability in the long run. The role of each stakeholder in the Penta helix domain is considered as the main

factor to create a potential ecosystem for entrepreneurs to build their successful business for the future, this stakeholder such as : the government as the central role responsible for policymaking, regulator system, and legal facilitator. *Nonprofit* as the key player in supporting the entrepreneur through business development service with training, workshop, assistance, and providing network. *University* will provide important data and information through research and development which will share with all stakeholders and produce quality human resources to support the entrepreneurs in the coffee industry. Industries as the vocal point in supporting the entrepreneurs through events and promotions that will help the entrepreneurs to increase their capacity and capability to compete in local market and international market.

The stakeholders in Pentahelix with key roles as follows:

- a) Potential Entrepreneurs
- b) Community
- c) University
- d) Government
- e) Industry

The *potential entrepreneurs* consist start up and young entrepreneurs that has high motivation to run a business under their on feet, which has been discover in this research in Timor-Leste, there are 75% coffee entrepreneurs consisted 23 coffee shop and 2 coffee exporter from total 35 coffee entrepreneurs in the country where able to manage their business without having access facility such as; access to loan, training, workshop or special experience.

Community and culture (non-profit) in the Penta helix roles are considered as one of an important key players in the coffee industry, as providing basic knowledge through training and workshop, assessment for coffee quality, include marketing coffee to the local market and international market, in this research has found evidence that community and culture (non-profit) in Timor-Leste, such as: Lete Coffee, Coffee Maubere, and East Timor Development Agency has made a significant contribution to the coffee industry, this three nonprofit are considered as the proactive nonprofit that support the uprising of motivation for coffee entrepreneurs to establish their coffee shop. Lete Foho coffee has been successfully worked closely with the farmers to produce specialty coffee that currently used by most of the coffee shop in the country and two of the former worker of Lete Foho coffee are now successfully run their business, its been recorder in this research the Fatima Coffee Shop that now has two coffee shop in the capital, and Atsabe Coffee shop where also success in doing export to New Zealand, UK and Australia. in the other hand the Maubere coffee non profit are able to export the farmers coffee to Hong Kong and supply to the local coffee shop in the country, and the East Timor Development Agency providing manpower supplier to coffee industry by training barista and waiters to work in the coffee shop.

The university role in the penta helix domain is defined as the key element for source of knowledge to provide information, innovation and education system that able to support the coffee industry thorough research and development, entrepreneurship education, business course and management innovation, this are expected to produce potential human resources to support the coffee industry to grow consistently. In this research showing that University in Timor-Leste still not adaptable to the entrepreneurship education as in many country, this is because of the understanding of entrepreneurship is very limited, most of the institution still offering general

discipline such as management, and accountability, and not specifically focus on entrepreneurship field, in the other hand lack of research in entrepreneurship also considered as obstacle to evaluate coffee industry performance in Timor-Leste.

The government role in the penta helix is defined as the central player to determine the future of the coffee industry, through policies and strategic plans designed by the government will impact the coffee industry progress. As the key decision for regulations, infrastructure, bureaucracy and administration, governments are expected to be proactive in evaluating and observing the growth of the coffee industry. In this this research showing that government policies is not conformable with government strategic plan, this can see in the statistic at chapter 4, the budget allocation for agriculture only 7% in annual budget 2021, and subsidy for small medium business enterprise are lower than it expected according to department of Institute of small business development of Timor-Leste. This is not reflecting to the government strategic plan 2030 where prioritizing agriculture sectors. This become gap to the coffee industry in Timor-Leste to grow due to inconsistent policies change.

Industry is defined as the important stakeholder in penta helix to elaborate with every party in the coffee industry, which is to guarantee fair trade, establishment of cooperation, educational and training, and monitoring the progress of coffee industry performance and net working. In this research showing that the industry player in Timor-Leste are not link with the coffee entrepreneurs actively, in the interview with Timor-Leste coffee association vice president Mr. Afonco explain that until today they don't have any data related to coffee entrepreneurs, in the other hand many of the coffee entrepreneurs didn't know the existence of coffee association, this become one of the difficult challenges to coffee industry to measure the progress of coffee industry and to apply their program with every party.

According to the analysis in the previous chapter, the main parties in Pentahelix in Timor Leste are the Coffee shop owner, Government, NGO, Academics, and Coffee Industries, all of which played a role in the development of coffee entrepreneurship in Timor Leste, so it can be seen that there were several imbalances that occurred before the existence of a Pentahelix collaboration and as well as the recovery that occurs after an effective and efficient Pentahelix collaboration

5.3.3. External Factors:

PESTLE is covered external environment to mapping and discover comparative advantage position in coffee industry in Timor-Leste:

- a) Politic
- b) Economic
- c) Social
- d) Technology
- e) Environment

Politics is defined as the important factor to develop the coffee industry in Timor-Leste, political stability, political decision and political strategy, are considered as the main source to produce important results to the growth of coffee industry. In this research indicate that political instability in Timor-Leste has affected coffee industry progress in the last five years, as many of participant in this research include government officer, coffee entrepreneurs, non profit, industries and academician where complain that instability politic in the last few years has caused economic decline in the country due to tendentious of power struggle of political parties where resulted legislative re-election and process of annual budget execution that considered slow. This has forced many coffee entrepreneurs to struggle to manage their business as the consumer in the national market becomes less.

Economics is categorized as the important element of the sustainability of the coffee industry, the stability of the economy will guarantee the survival of the business in the coffee industry. In this research showing that Timor-Leste has potential for the coffee industry to grow, this can be seen from the affordable of coffee price in the market, and the potential buyers of coffee is high in local market or international market, but due to instability politic had caused many of coffee shop losing their customers.

Social is defined as the important aspect in the coffee industry, playing an important role in popularizing coffee to the society and the community. In this research showing that socially coffee is more than just accepted in Timor-Leste, it's become a cultural icon to its people over 400 years, but due to lack of knowledge in innovation and business the coffee industry in Timor is still not popular in many countries.

Technology is defined as the crucial part to the coffee industry, since the era of globalization demands everything to be integrated,informative, systematic,and automatic. This became more than just essential for coffee entrepreneurs in Timor-Leste to learn and practice but seriously to adopt. In this research showing that most of the coffee entrepreneurs have not yet utilizing technology optimally, it can be seen from the utilizing of technology information and communication that could be the source for marketing and business learning, technology processing for producing good quality coffee, and technology of system management to organize the operational business and inventory system. Lack of training and education in the field of technology has caused the entrepreneurs struggle to develop their business progressively.

Environment is considered as the source of the coffee industry in Timor-Leste to survive, coffee Timor was brought by the colonial Portuguese over 400 years ago, and it has

become popular since then. The Portuguese government realizes that coffee is potentially to grow in Timor based on its altitude, climates and environment that is surrounded by trees that can protect the coffee from growing organically. Timor coffee is also recognized as Hybrid Timor according to the history where in 1900th most of the coffee plantations in the world were attacked by pests and extinct, but Timor coffee is the only few that survive and adapted to replant in various regions in Asia and Latin America. But due to climates change, illegal logging and lack of maintenance had caused coffee Timor faced a challenge of production instability every year, according to the non profit Lete Foho coffee, industrialist Timor Global, and dean faculty of agriculture. A coffee farmer cuts out the green coffee beans from the coffee cherries. The coffee cherries are then transported to the drying house where the beans are dried. During the drying process coffee cherries are subject to varying temperatures. Drying is very important to green coffee beans as it affects the taste.

Chapter 6

Conclusion

6.1. Overview

The objective of this research is to study the contribution of non-oil and gas commodities in the empowerment of the people of Timor-Leste. Furthermore, this research is to develop a model of entrepreneurship ecosystem education and training to improve entrepreneurial capacity and capability to support the business development in Timor-Leste to grow sustainably. The result of this research conclude as following:

- a. Based on comparative advantage analysis, coffee is the top agricultural commodity in Timor-Leste in comparison to different commodities withinside the country. This may be visible in the information desk at bankruptcy 4 from the overall facts of Timor-Leste anywhere espresso manufacturing remains at the very best withinside the final five years. The export interest is moreover nonetheless ruled via way of means of espresso in comparison to different commodities.
- b. The result in this research determined that components of partnership and collaboration have now no longer but optimally applied and functioned via way of means of the marketers and industrialists to broaden aggressive gain withinside the espresso enterprise.
- c. The result in this have a look at determined that the entrepreneurs and organization player have now no longer used technology effectively to manual their enterprise, which maximum of the marketers and the enterprise participant

does now no longer make use of era for tailored new lesson and learning, marketing, marketing campaign their products, construct the network, which includes internet site or net web page that may percentage greater approximately their espresso enterprise facts that may lead their enterprise to the following level. In the alternative hand the marketers and industrialists simplest cognizance on a way to promote espresso however now no longer taken into consideration manufacturing era may be a capability enterprise possibility to enhance the espresso nice which include a coffee machine, roaster machine, dryer machine, packaging, and the alternative tools, this has brought about the espresso marketers and the industrialist having an issue to improve their enterprise due to the fact there's no distributor offer era particularly to the espresso enterprise.

- d. The result in this research found that basically from the perspective of Penta helix, the five parties which needed to develop the ecosystem of coffee industry basically had formed, however the mechanism of interaction among the stakeholder in the penta helix have not yet been well organized and coordinated appropriately, this has caused miscommunication and miss understanding between the stakeholders, most of the stakeholder did not have information about their present and roles, for example, there's no data about active coffee entrepreneur in the government database, how many coffee entrepreneurs doing export and how much coffee shop has invited to participate in the government program for subsidy or training. The same condition is also found with coffee industrialists where there's no data about

coffee entrepreneurs recorded by the coffee association in their database. On the other hand almost 80% of the coffee entrepreneurs and the startup did not have access to government programs and coffee association presents which has created a wrong perception among these stakeholders. Meanwhile, the non profit had built several positive programs that successfully empower farmers and entrepreneurs but did not connect with the other stakeholder actively to socialize their program and the academician is also still not working with all parties to design research and development programs that can contribute to the coffee industry.

- e. The institute where organizing entrepreneurship education and training in Timor-Leste has establish since 2006 “IADE” Instituto de Apoio Ao Desenvolvimento Empresarial (Institute of the development for support small business), but the implementation of activity have not yet well managed and organized, the program that offered still in context of partial, temporary and not reflex to the contribution of the other stakeholders which are important part of the entrepreneurship ecosystem as the industry player in the coffee business industry.

A significant contribution of this study is the invention of a brand new version referred to as the atmosphere of entrepreneurship training and training (EET). EET is an extension of the EET version that has been evolved in preceding studies. This observation proposes EEET in trying and expands entrepreneurial ability and functionality withinside the area of the espresso enterprise in Timor-Leste. This is an enormous contribution of the observed aid government

The model of EEET consist of three main element:

- a. *Credible institution*. The institution that credible has role to organize activities and program in developing entrepreneurship through entrepreneurship education and training which is integrated with the ecosystem of entrepreneurship in the environment of entrepreneurs or businessmen in the sector of the industry that relevant in Timor-Leste
- b. *Penta helix parties*. The interested parties in Penta helix each has a role to build and develop (i) competence of entrepreneur, (ii) organized curriculum structure and tiered from beginner, intermediate, and advance; (iii) supported ; learning program in class, incubator, and in the field; research and development product and service; (iv) become a partner to the institution; (v) support to connect the learners with the association, supply, chain, partnership and collaboration backward and forward with sector industry from downstream to upstream; (vi) help to provide the appropriate technology, effective and efficient to support business development plan of the participants
- c. *External Factor*. Penta helix parties are needed to help institutions to observe the developments of external factors which will affect the progress and performances of businesses in the coffee sector. The institution and Penta helix parties will have to anticipate the developments and changes of the external factor, by developing modules of training that are relevant to deal with challenges of the coffee business in the future of Timor-Leste, in the context of local, national, and international challenges.

6.2. Limitation

This studies is focusing best on entrepreneurship atmosphere area associated with the development of entrepreneurial potential and capability, specially in the application of entrepreneurship training and training. This research did not rise issue of implementation managerial business in the sector of coffee industry. This research has limitation, therefore for the interpretation and implication are need to be observed from limitation aspects as following :

- a. This research have not yet cover all study regarding to entrepreneurship ecosystem domain in other sector such as banking, infrastructure (transportation), public infrastructure and facilities
- b. The international development progress regarding to economics, politics, competition, institution, regulation, and the cooperation that has impact on Timor-Leste coffee industry performance
- c. The qualitative approach emphasizing to the deep analysis which being study based on knowledge and experience of the informant, there is a possibility the information from informant that not represent the real entirety situation and condition fact in Timor-Leste

6.3. Implication

The result of the research has important implication particularly to the penta helix party, as following:

a. Government: EEET model can be used as reference by the regulator to make policy which can integrate ministry and department related to education and development of entrepreneurship education and training based on ecosystem and open to external changes factor. Regulator could set the priority scale to allocate resources of government budget more efficient and effectively in effort to increase entrepreneurship capacity and capability to the entrepreneurs, especially in the coffee industry sector

b. Entrepreneur: EEET model emphasizes the importance of entrepreneurship ecosystem to educate candidate entrepreneurs to be able to grow and develop for long term business activity. The entrepreneur will benefit with the program and activity of entrepreneurship education and training which is organized based on a curriculum that has been designed structurally, systematic and integrated with the entrepreneurship ecosystem. Therefore, the entrepreneur is supported to gathered and associate in the association to request to penta helix parties for pro-active in the program of development and enhancement of entrepreneurship capacity and capability with implementation reference of model EEET

c. community: communities such as non profit can submit a proposal to the international institution in order to support a national program which is integrated in the framework of EEET. Timor-Leste has non profit such as, East Timor Coffee Association, Coffee Maubere, Letefoho Coffee, that has productive program to support the empowerment of the community by actively involved in the framework of EEET

d. Industry: Industry players from upstream to the downstream, especially in the sector of coffee industry need to be proactive to enhance capacity and capability of the coffee industry through community empowering programs by using development EEET method that integratedly. The pattern on partnership and collaboration are include supply chain, backward and forward network in the framework of entrepreneurship ecosystem

e. University: higher institutions have an important role to develop entrepreneurship education and training curriculum that is structurally and well organized based on higher education standards. Academics in the higher institution need to perform its function to perform input networking through observation, survey, interview and discussion with the various stakeholders in penta helix to consider external factors in developing curriculum that meet with the standard competence which is required by the industry. The curriculum include setting of learning outcome, courses structure, teaching learning material and media, modules, and teaching and training methods

f. Institute of EET: The institute that organizes EET in Timor-Leste currently is IADE (Instituto Apoi Ao Desenvolvimento Empresarial), this institute will be greatly helped by the existence of EEET models. The implication of the EEET model to the institute that organizes EET is to implement partnership and collaboration methods with the penta helix parties in the process of running in the entrepreneurship ecosystem structurally and integrated. The implementation of EET will not be effective if its only done partially, even tend to fail in supporting the government in community empowerment efforts,

in other words, EEET is a model that should be used as a reference in efforts to increase entrepreneurial capacity and capability in Timor-Leste

6.4. Suggestion for Further Research

As stated within the segment on studies limitations. The examination of this study is extra focusing on the entrepreneurship atmosphere area within the context of EET to enhance entrepreneurial ability and capability. These studies have now no longer explored extra widely associated with the entrepreneurship atmosphere overall.

Further research is recommended to develop related research:

- a. The breadth analysis by taking to account in the aspect of financial system and banking, infrastructure, transportation, and economic changes
- b. the depth analysis regarding the understanding and skills in the sector of managerial and business such as financial management, marketing, production and operating, human resources, system information.

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ATTACHMENT

Interview List Code

Coffee shop												
24 Coffee	Alimau	Atsabe	Black Box	Brother	Daily Fresh	Dare Coffe	De Fatima	Doce de T	Lalettek	Linda	Singe Ori	W2
1.1.1												
		1.1.2		1.1.2								
		1.1.3	1.1.3		1.1.3	1.1.3	1.1.3	1.1.3	1.1.3	1.1.3	1.1.3	1.1.3
								1.2.1		1.2.1	1.2.1	1.2.1
1.2.2		1.2.2	1.2.2	1.2.2	1.2.2	1.2.2			1.2.2	1.2.2		
	1.2.3											
1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2	1.3.2
1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1	1.4.1
		1.4.2	1.4.2									
	2.1.1	2.1.1	2.1.1	2.1.1		2.1.1	2.1.1					
2.1.2					2.1.2			2.1.2	2.1.2	2.1.2	2.1.2	2.1.2
			2.2.1								2.2.1	2.2.1
	2.2.2	2.2.2			2.2.2	2.2.2	2.2.2	2.2.2	2.2.2	2.2.2		
	2.3.1	2.3.1	2.3.1									
2.3.3				2.3.3	2.3.3	2.3.3	2.3.3	2.3.3	2.3.3	2.3.3	2.3.3	2.3.3

		2.4.1	2.4.1				2.4.1				2.4.1	
2.4.3	2.4.3			2.4.3	2.4.3	2.4.3	2.4.3	2.4.3	2.4.3	2.4.3		2.4.3
2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1	2.5.1
		2.7.2										
2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3
3.1.1	3.1.1	3.1.1	3.1.1	3.1.1	3.1.1	3.1.1	3.1.1	3.1.1		3.1.1		3.1.1
3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4	3.1.4
3.2.1												
	3.2.2			3.2.2	3.2.2	3.2.2			3.2.2	3.2.2		3.2.2
3.3.1	3.3.1		3.3.1	3.3.1	3.3.1	3.3.1	3.3.1	3.3.1	3.3.1	3.3.1	3.3.1	3.3.1
		3.3.2										
3.4.1	3.4.1		3.4.1		3.4.1		3.4.1		3.4.1		3.4.1	3.4.1
		3.4.2		3.4.2		3.4.2		3.4.2		3.4.2		
3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2	3.5.2

						3.6.1	3.6.1	3.6.1				
					3.6.2					3.6.2	3.6.2	
3.6.3	3.6.3	3.6.3	3.6.3	3.6.3					3.6.3			3.6.3
		3.7.1		3.7.1	3.7.1			3.7.1	3.7.1	3.7.1		
3.7.2	3.7.2		3.7.2			3.7.2	3.7.2				3.7.2	3.7.2
				3.8.1	3.8.1			3.8.1	3.8.1	3.8.1	3.8.1	3.8.1
						3.8.2	3.8.2					
3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1	3.9.1
		3.10.1	3.10.1	3.10.1	3.10.1	3.10.1	3.10.1	3.10.1	3.10.1	3.10.1	3.10.1	3.10.1
4.1.1	4.1.1	4.1.1	4.1.1	4.1.1		4.1.1	4.1.1	4.1.1		4.1.1	4.1.1	
					4.1.2				4.1.2			4.1.2
			4.2.1		4.2.1	4.2.1		4.2.1	4.2.1			
4.2.2		4.2.2		4.2.2			4.2.2			4.2.2	4.2.2	4.2.2
	4.3.1		4.3.1		4.3.1	4.3.1	4.3.1	4.3.1		4.3.1	4.3.1	4.3.1
				4.3.2					4.3.2			
	4.4.1			4.4.1	4.4.1		4.4.1			4.4.1	4.4.1	4.4.1
4.4.2		4.4.2	4.4.2			4.4.2		4.4.2	4.4.2			
		4.5.1	4.5.1								4.5.1	
	4.5.2			4.5.2	4.5.2							
						4.5.3	4.5.3	4.5.3	4.5.3	4.5.3		4.5.3
					4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1	4.6.1
	4.6.1.1			4.6.1.1		4.6.1.1		4.6.1.1				
		4.6.1.2					4.6.1.2					

			4.6.1.3									
4.6.1.4	4.6.1.4								4.6.1.4	4.6.1.4	4.6.1.4	4.6.1.4
									4.6.2.1			
											4.6.2.2	
4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3		4.6.2.3		
4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2	4.6.3.2
4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2	4.6.4.2
4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1	4.6.5.1
4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1	4.6.6.1
										4.6.7.1		4.6.7.1
4.6.7.1		4.6.7.2							4.6.7.2			
	4.6.7.3		4.6.7.3	4.6.7.3	4.6.7.3	4.6.7.3	4.6.7.3	4.6.7.3			4.6.7.3	
						5.1.1						
5.1.2	5.1.2	5.1.2	5.1.2	5.1.2	5.1.2		5.1.2	5.1.2	5.1.2	5.1.2	5.1.2	5.1.2
5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1
5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1

						5.4.1	5.4.1	5.4.1		5.4.1		
5.4.2	5.4.2	5.4.2	5.4.2	5.4.2	5.4.2				5.4.2		5.4.2	5.4.2
											5.5.1	
5.5.2	5.5.2	5.5.2	5.5.2	5.5.2	5.5.2	5.5.2	5.5.2	5.5.2	5.5.2	5.5.2		5.5.2
5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1	5.6.1
								6.1.1	6.1.1	6.1.1	6.1.1	6.1.1
6.1.2	6.1.2	6.1.2	6.1.2	6.1.2	6.1.2	6.1.2	6.1.2					
6.2.2	6.2.2	6.2.2	6.2.2	6.2.2	6.2.2	6.2.2	6.2.2	6.2.2	6.2.2		6.2.2	6.2.2
										6.3.1		
	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2	6.3.2
		6.4.1		6.4.1								
6.4.2			6.4.2		6.4.2	6.4.2	6.4.2	6.4.2	6.4.2	6.4.2	6.4.2	6.4.2
	6.4.3											
1.1.2												

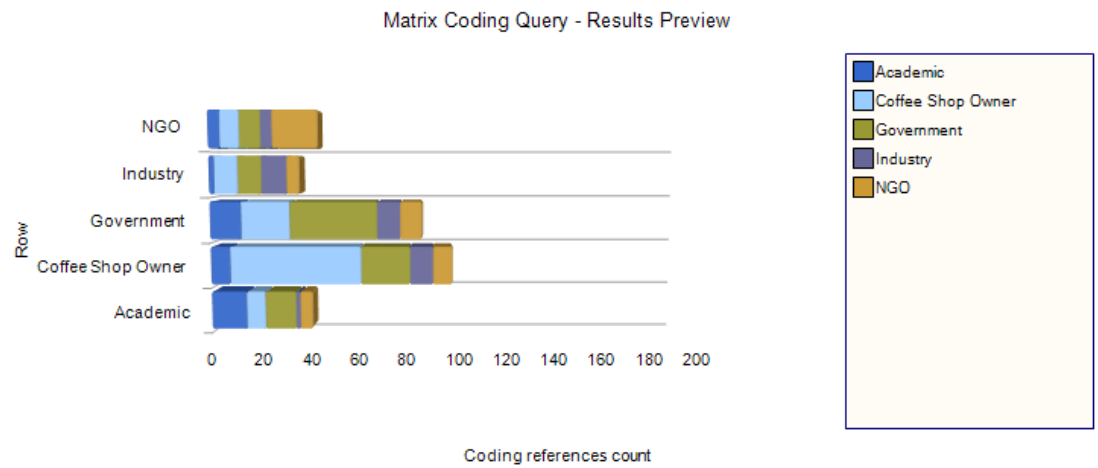
Government Office			Community Persons			Industry and Association			Academic (University)		
Antonio	Aurio	Cosme	Januario	Afonco	Mrs. Julia	Luis	Bobby	Afonco	Carlito	Lucio	Graciano
		1.1.2	1.1.2		1.1.2	1.1.2		1.1.2			
				1.1.3						1.1.3	
1.1.4	1.1.4								1.1.4		
1.2.1		1.2.1	1.2.1	1.2.1	1.2.1	1.2.1				1.2.1	
1.2.2	1.2.2	1.2.2	1.2.2	1.2.2		1.2.2	1.2.2		1.2.2	1.2.2	1.2.2
1.3.1		1.3.1			1.3.1					1.3.1	
			1.3.2	1.3.2		1.3.2					
		1.4.1			1.4.1					1.4.1	
			1.4.2	1.4.2							
					2.1.1			2.1.1			
2.1.2	2.1.2	2.1.2	2.1.2			2.1.2	2.1.2		2.1.2	2.1.2	2.1.2
2.2.1	2.2.1	2.2.1	2.2.1	2.2.1	2.2.1	2.2.1	2.2.1		2.2.1	2.2.1	2.2.1
								2.2.2			
2.3.1	2.3.1	2.3.1	2.3.1		2.3.1	2.3.1	2.3.1	2.3.1	2.3.1		2.3.1
										2.3.2	

										2.3.3	
	2.4.1		2.4.1	2.4.1	2.4.1	2.4.1	2.4.1				
2.4.2											
		2.4.3							2.4.3	2.4.3	2.4.3
2.7.1	2.7.1	2.7.1	2.7.1	2.7.1	2.7.1	2.7.1	2.7.1		2.7.1		
	2.7.2						2.7.2				
2.7.3	2.7.3	2.7.3	2.7.3	2.7.3	2.7.3			2.7.3		2.7.3	
					3.1.1						
3.1.2	3.1.2	3.1.2	3.1.2	3.1.2		3.1.2	3.1.2		3.1.2	3.1.2	3.1.2
									3.1.2		
3.1.3		3.1.3									
					3.3.2	3.1.5					
3.2.2	3.2.2	3.2.2					3.2.2				
3.2.4	3.2.4	3.2.4	3.2.4	3.2.4		3.2.4	3.2.4				
								3.3.1			
							3.3.3				
	3.4.1								3.4.1		
3.5.1	3.5.1							3.5.1	3.5.1		
							3.5.3				

		3.5.4	3.5.4	3.5.4						3.5.4	3.5.4
	3.6.1	3.6.1			3.6.1					3.6.1	
3.6.2			3.6.2			3.6.2					
				3.6.3				3.6.3	3.6.3		3.6.3
3.7.1	3.7.1	3.7.1	3.7.1	3.7.1			3.7.1			3.7.1	
					3.7.1			3.7.2			
3.8.1				3.8.1			3.8.1	3.8.1		3.8.1	
					3.8.1				3.8.2		
			3.9.1	3.9.1						3.9.1	
		3.9.2			3.9.1			3.9.1			
			3.9.4								
		3.10.1	3.10.1	3.10.1	3.10.1	3.10.1		3.10.1		3.10.1	
4.1.1		4.1.1	4.1.1	4.1.1	4.1.1	4.1.1	4.1.1	4.1.1		4.1.1	
									4.1.2		
4.2.1	4.2.1	4.2.1			4.2.1	4.2.1				4.2.1	
4.2.2			4.2.2	4.2.2			4.2.2	4.2.2	4.2.2		
4.3.1	4.3.1	4.3.1	4.3.1	4.3.1	4.3.1	4.3.1			4.3.1	4.3.1	
	4.4.1					4.4.1			4.4.1	4.4.1	
4.4.2		4.4.2	4.4.2	4.4.2	4.4.2			4.4.2			
4.5.1	4.5.1		4.5.1	4.5.1		4.5.1		4.5.1		4.5.2	
		4.5.2			4.5.2				4.5.2		
		4.6.1	4.6.1	4.6.1		4.6.1				4.6.1	
4.6.1.1	4.6.1.1						4.6.1.1				

						4.6.1.2					
		4.6.1.3		4.6.1.3		4.6.1.3					
					4.6.1.4			4.6.1.4		4.6.1.4	
	4.6.2.2		4.6.2.2								
4.6.2.3		4.6.2.3		4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	4.6.2.3	
4.6.3.1	4.6.3.1	4.6.3.1			4.6.3.1			4.6.3.1	4.6.3.1	4.6.3.1	
			4.6.3.2	4.6.3.2		4.6.3.2					
4.6.4.1	4.6.4.1	4.6.4.1	4.6.4.1	4.6.4.1	4.6.4.1	4.6.4.1		4.6.4.1		4.6.4.1	
									4.6.4.2		
4.6.5.1	4.6.5.1	4.6.5.1						4.6.5.1	4.6.5.1		
					4.6.6.1			4.6.6.1			
4.6.7.1	4.6.7.1	4.6.7.1	4.6.7.1	4.6.7.1						4.6.7.1	
					4.6.7.2			4.6.7.2			
									5.1.1		
5.1.2	5.1.2	5.1.2	5.1.2	5.1.2	5.1.2	5.1.2		5.1.2		5.1.2	
5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1	5.2.1		5.2.1	5.2.1	5.2.1	

5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1	5.3.1		5.3.1	5.3.1	5.3.1	
									5.3.2		
5.4.2	5.4.2	5.4.2	5.4.2	5.4.2	5.4.2	5.4.2		5.4.2	5.4.2	5.4.2	
5.5.1	5.5.1	5.5.1	5.5.1	5.5.1		5.5.1					
								5.5.2			
5.6.1	5.6.1	5.6.1							5.6.1	5.6.1	
			5.6.2		5.6.2	5.6.2		5.6.2			
			6.1.1	6.1.1	6.1.1	6.1.1		6.1.1	6.1.1	6.1.1	
6.1.2		6.1.2									
	6.2.1								6.2.1	6.2.1	
6.2.2	6.2.2	6.2.2	6.2.2	6.2.2	6.2.2	6.2.2		6.2.2			
										6.3.1	
6.3.2		6.3.2	6.3.2	6.3.2	6.3.2	6.3.2		6.3.2			
					6.4.1					6.4.1	
	6.4.2	6.4.2	6.4.2	6.4.2		6.4.2	6.4.2	6.4.2			
6.5.1		6.5.1	6.5.1	6.5.1	6.5.1	6.5.1		6.5.1	6.5.1	6.5.1	
6.5.2											



Pengaruh antar variable Dalam persen (%)

	Academic	Coffee Shop Owner	Government	Industry	NGO
1 : Academic	15	8	13	2	5
2 : Coffee Shop Owner	8	56	21	10	8
3 : Government	13	21	37	10	9
4 : Industry	2	10	10	11	5

5 : NGO	5	8	9	5	19
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