CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

Chapter three describes the methods and procedures used to conduct the study and answer the research question.  This begins with the overview of the information that includes the research objective, the research design, and rationale; the research procedure, which includes the targeted population and sampling; the instrument used to collect data; data collection procedures, selection of training participants, statistical techniques used to evaluate data; ethical considerations, limitations, and summary of the chapter.

**Overview of Information**

Entrepreneurship Development Institute, in collaboration with UNDP, has been providing entrepreneurial training to realize the vision of Ethiopia’s growth and transformation plan in response to the growing role of the private sector since 2013.  The general objective of the research is to investigate the difference between youth readiness to start or develop a business based on entrepreneurial self-efficacy of those who have taken EDI entrepreneurship training and those who have not, to determine if there is a significant difference in youth entrepreneurial readiness.

**Research Design and Rational**

Quantitative research will be used to describe the socio-demography of research participants and investigate the difference between youth readiness to start or develop a business based on entrepreneurial self-efficacy of those who have taken EDI entrepreneurship training and those who have not, to determine if there is a significant difference in youth entrepreneurial readiness.  The study will use a non-experimental research design, having a group that had the training and a group that did not.  The design was selected because the study used prior events and past experiences, and the researcher would investigate what occurred in the selected group who already have behaviors of interest.

The research will answer:

RQ: What differences exist in youth entrepreneurial readiness based on entrepreneurial self-efficacy related to entrepreneurship training?

**Research Procedure**

**Population and Sample Selection**

In this quantitative research, the EDI trainees in Addis Ababa, Ethiopia, will be the population, and youth aged 18-35, trained in the first quarter of 2023, will be selected.  One hundred twenty-seven participants were trained from January - March 2023.  Out of these, 75 were aged 18-35.

Convenience sampling will be used with 95% confidence, and 63 sample sizes will be selected using the sample formula n = N \* [Z2 \* p \* (1-p)/e2] / [N – 1 + (Z2 \* p \* (1-p)/e2].  Given population size, N = 75, critical value at 95% confidence level, Z = 1.96, and margin of error, e = 5% or 0.05 (Krejcie & Morgan, 1970; Andrews et al., 2012).

**Instrumentation**

Based on social learning theory, human motivation and actions are regulated by the perceived belief system (Bandura, 1977).  Self-efficacy refers to one's self-perceptions of their abilities and skills to achieve in a given domain, which affects thoughts, affects, and behavior (Bandura, 1997).  The entrepreneurial self-efficacy instrument was developed based on social learning theory to assess a particular entrepreneurial task.

***Entrepreneurial Self-Efficacy***

Bandura framed self-efficacy-specific domains related to entrepreneurship.  Over a decade, initially, 29 items were derived from the three ESE scales developed by Chen et al. (1998), DeNoble et al. (1999), and McGee et al. (2009) with Cronbach alpha for all was >0.72, and the total entrepreneurial self-efficacy (one dimension) = 0.89.

However, Moberg (2012) further revised the tool with five constructs and 20 items with a 7-point Likert scale, ranging from Do not agree (=1) to Agree (=7) were selected with the reliability of the creativity (Cronbach’s ἀ .85), planning (Cronbach’s ἀ .71), marshaling (Cronbach’s ἀ .67), managing ambiguity (Cronbach’s ἀ .77), and financial literacy (Cronbach’s ἀ .85.  In addition, convergent validity of all items had significant loading above .50 on their constructs, and discriminant validity correlated above .8.  Moberg also reported that the new ESE scale demonstrated good discriminant and nomological validity.

The revised ESE scale with neutral wording will be used to assess the entrepreneurial self-efficacy of the trained EDI trainee.  Approval was obtained from the author, Kåre Moberg, kaare@ffefonden.dk, by e-mail, Department of Strategic Management and Globalization Copenhagen Business School, and The Danish Foundation for Entrepreneurship – Young Enterprise.

**Selection of Training Participants**

Those interested in taking entrepreneurship training will fill out application forms for EDI.  The government and development partners proactively organize those qualified for small and medium enterprises with the potential for EDI training.  However, individuals who would like to take entrepreneurial training can also directly apply and pass through the screening process.  Because EDI operates with the support of donors, funds are allocated to trainees who either have the potential to start or develop their small and micro businesses.

After the applications are collected, pre-screening will be conducted, and the application forms will be scored based on intention, readiness, business startup, or expansion potential.  Those who scored 50 percent will be called for an interview by master trainers.  The interview has two components.  The first part focuses on assessing the motivation and clarity of their knowledge about business entrepreneurship and the resources it entails.  The second component is a behavioral assessment focusing on the ten entrepreneurial competencies.  Interviewees must score 60 percent to be eligible to take the six-day training.

The interview takes from 45 minutes to an hour.  Those who pass the screening test will be enrolled to take the training.  Since EDI conducts the screening of trainees, the recruitment criteria for this study will be the youth (18-35) who had taken the EDI training in the first quarter of 2023 and are willing to participate in the research.  The data will be collected using ESE questionnaires completed by the respondents at EDI.

**Data Collection and Preparation**

The Omega Graduate School Institutional Review Board will be contacted to obtain approval regarding the features and instrumentation of the study before data collection.  After IRB’s approval, a permission letter and a letter of cooperation will be obtained from OGS about the study, and EDI will be asked to write a support letter to participants.

Participants in the study will be accessed from the EDI database, and a recruitment letter will be sent to them.  The survey will provide the participants with a letter explaining the nature of the research, the security of their responses, and the anonymity of the respondents.  This letter is found in Appendix B. Those who agree to participate will be sent an informed consent, and a signed copy will be kept.  (See Appendix C.)

The researcher chose Survey Monkey due to the ease of distributing the survey and collecting data electronically because Survey Monkey generates and customizes charts and graphs based on the answered survey questions; and it is also easy to administer and obtain responses.  Survey Monkey will allow the researcher to ensure the anonymity of the participants by turning off the IP tracking devices.

At the end of the survey, the participants may withdraw from the study before submitting responses.  Upon survey submission, data will be exported to Statistical Analysis Software (SPSS) 26, a statistical analysis program.  Participants will be assured of their anonymity, the anonymity of their choices, and the security of the data collected in the cover letter and at the beginning of the survey.  The participants will be asked to complete the survey within two weeks.  Reminder emails will be sent to encourage participation after the first week to those who have yet to respond from trainees who had received the link.

The questionnaire will be given to a government-approving translation office to translate the instruments into one of the local languages, Amharic.  This is to get accurate information from participants and avoid language barriers in understanding the questions.  The translation office will authenticate the translated material.  The translation office must have suitable qualifications approved by the Ethiopian government and have licenses to translate documents.  Therefore, the licensed office is given permission from the government based on the requirements they fulfill to do translation work.

**Data Analysis**

The quantitative research design is selected because it is appropriate for the research question, “What differences exist in youth entrepreneurial readiness based on entrepreneurial self-efficacy related to entrepreneurship training?”

The hypothesis was based on the literature reviewed on social learning theory and will be tested for significant differences using the Mann-Whitney U test.  The test is chosen because the data is ordinal, two separate groups, and non-experimental.  Research participants will be the youth who have taken entrepreneurial training at EDI from January - March 2023 and results will be compared with those who are in the waiting list.

***Socio-demographic Data***

Kolvereid (2017) found socio-demographic backgrounds, such as the role of family background, sex, and prior self-employment on employment status choice, and found that they indirectly influence entrepreneurial business activities.  Socio-demographic background in the current study incorporates gender, age, income level, educational level, work experience, and entrepreneurial training/education.  A descriptive analysis of the two groups will be conducted to identify similarities or differences between those who have taken the EDI training and those who have not.  In addition, this demographic data will complement the data collected by the researcher.

***Hypothesis***

H0: No statistically significant difference exists in entrepreneurial readiness to start or develop a business based on entrepreneurial self-efficacy between those who received entrepreneurship training and those who did not.

Ha: A statistically significant difference exists in entrepreneurial readiness to start or develop a business based on entrepreneurial self-efficacy between those who received entrepreneurship training and those who did not.

The hypothesis will also be analyzed using the samples to determine whether there will be a statistically significant difference in entrepreneurial self-efficacy scores between those who had taken the EDI training and those who had not. The result will be analyzed using the Mann-Whitney U test to determine if there is a significant difference between the groups.  The Mann-Whitney U test compares the means of the two groups.

***Moderating Variable***

The entrepreneurship training will be used to moderate whether or not those who have taken the six-day EDI training have a significant difference in youth entrepreneurial readiness than those who have not. According to Cohen and Cohen (1983), moderation takes place when the independent variable and the moderating variable have mutual effects on a variance of the dependent variable than that explained by the direct effect.

All youth trained within the first quarter of 2023 and willing to participate in the study will be assessed on entrepreneurial efficacy, and a similar assessment will be given to those who have not taken the training to assess if entrepreneurial training will make a significant difference. The different factors will be examined to know the extent of the relationship, whether these factors have a differential or interactional effect on entrepreneurial readiness, and the moderating role of entrepreneurship training.

The study will use SPSS 26 computer data-analysis software to perform statistical analysis. The data analysis will include simple descriptive statistics, Mann-Whitney U tests, and factor and effect size analyses. Simple descriptive statistics, including frequencies and percentages, will analyze the respondents’ background and demographic data.

The present study will fill in the knowledge gap of how an individual’s entrepreneurial self-efficacy contributes to entrepreneurial readiness as moderated by EDI training. This suggests the need to engage the youth and build their entrepreneurial skills through training to start or develop businesses, thus contributing to employment creation and economic growth. The finding is also assumed to influence new business startups or those who build their business after participating in an entrepreneurship training program.

**Ethical Compliance**

Ethical standards in research create professional accountability, protecting researchers and research participants.  "The goal of the ethical researcher is to develop a fair, clear, and explicit agreement with the subject so that the subject's decision to participate in an experiment is made voluntarily, knowingly, and intelligently.  The most fundamental ethical principles implied in the treatment of subjects involve non-maleficence, autonomy, and fidelity" (Heppner et al., 1992, p. 90).

In this research, participants will be asked for their willingness to participate in the study and sign an informed consent form.  The sample I will be taking will not be vulnerable groups, and there will be no potential harm in participating in the study.  In addition, the researcher will indicate to research participants that there will not be preferred responses, that the responses will be anonymous, and that there will be voluntary participation and no conflicts of interest with the study-related groups and stakeholders.  Moreover, approval to conduct the research will be sought and received from the Omega Graduate School Internal Review Board before the study begins.

During the data collection process, due attention will be given to keeping the participants' identities to protect the research participants' confidentiality.  To safeguard the anonymity and confidentiality of the responses, the researcher will collect the questionnaires and sign consent letters separately.  The respondents will retain a copy of the signed consent letters for their records.

The completed questionnaires will be secured against possible interference, damage, or deterioration.  The informed consent form includes the purpose of the study, study procedures, risks, benefits, confidentiality, contact information, and voluntary participation in the study.

In addition, the researcher includes statements that assure them of participants' ability to withdraw from the study at any time and their rights to participate.  Finally, the researcher documents the signed consent to participate in the research.

Survey Monkey allows all responses to be anonymous and users to withdraw from the survey at any time before submitting responses.  Moreover, to ensure participant anonymity and candid responses, the researcher limited demographic questions at the beginning of the survey.  The researcher would not know the true identity of anyone participating in the survey.

**Limitations**

The selection of participants for training is not random.  Instead, an extensive selection process will be done by EDI.  However, those who have taken the entrepreneurship training for six days, age 18-35, will be selected from those trained from January – March 2023.  Those who responded positively will be in the study.  The data collection time will be limited to two weeks, which may only get part of the sample.  This may let the researcher work only on those who responded.  Regarding the research design, the primary limitation of using a non-experimental design to study the effects of training is that differences between the groups other than training may account for differences in the dependent variable of youth entrepreneurial readiness.

**Summary**

This study will use quantitative research to describe the socio-demography of research participants and investigate the difference between youth readiness to start or develop a business based on entrepreneurial self-efficacy of those who have taken EDI entrepreneurship training and those who have not to determine if there is a significant difference in youth entrepreneurial readiness.  The study will use a non-experimental research design, having a group that had the training and a group that did not.  Sixty-three participants will be selected from those trained from January to March 2023, ages 18-35, and GSE and ESE tests will be self-administered using Survey Monkey.  A similar number of participants who have not taken EDI training will take the same tests.  The Mann-Whitney U test will be conducted to compare whether the groups have a significant difference.    Ethical compliance and limitations of the study are described.

**Time Schedule**

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| **Ser. No.** | **Task** | **Date** | **Responsible** |
|  | IRB approval and permission granted  | October 2, 2023 | McClane |
|  | Send data collection plan | October 4, 2023 | Seble |
|  | Send data collection recruitment and consent letter | October 5, 2023 | Seble |
|  | Start data collection  | October 9, 2023 | Seble |
|  | Follow-up meeting with Dissertation Committee Chair | October 24, 2023 | Dr. McClane/Seble |
|  | Organize and analyze data | November 13-17 2023 | Seble |
|  | Write chapter 4 | November 20-24 | Seble |
|  | Follow-up meeting with Dissertation Committee Chair | November 21, 2023 | Dr. McClane/Seble |
|  | Write chapter 5 | November 25-30 | Seble |
|  | Send chapters 4 and 5 to advisors | November 30, 2023 | Seble |
|  | Revise chapters 1, 2, 3  | December 1-5, 2023 | Seble |
|  | Obtain Feedback on chapters 4 and 5 | December 5, 2023 | Committee members |
|  | Add front and back matter and pull all documents into one file | December 6, 2023 | Seble |
|  | Develop Defense Presentation & Schedule Defense | December 8, 2023 | Seble |
|  | Defend dissertation | December 12, 2023 | Seble |
|  | Incorporate Feedback & produce an Error-Free Dissertation and send it to the Chair | December 13, 2023 | Seble |
|  | Submit Final Dissertation to OGS GRC for Graduation Approval | December 13, 2023 | Dr. McClane |
|  | GRC approval is to be sent to the student requesting an error-free dissertation copy | December 15, 2023 | Dr. McClane |
|  | Error-free dissertation copy submission | December 17, 2023 | Seble |
|  | Error-free approval | December 18, 2023 | Dr. McClane |
|  | Graduation validation letter from Academic Dean | December 20, 2023 | Dr. McClane |