ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSEMENT OF CHALLENGES AND OPPORTUNITIES OF INDUSTRY EXTENSION SERVICE PROGRAM IMPLEMENTATION.

By:
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List of Acronyms

AATVETA =Addis Ababa Technical and Vocational Education Training

COC= Center of Competence

ESDP=Education Sector Development Program

GDP= Gross Domestic Product

GOE=Government of Ethiopia

GTP=Growth and transformation plan

ICLS=International Conference of Labour Statistics

IESP= Industry Extension Service Program

ILO= International Labor Organization

MDGs=Millennium Development Goals

MFI= Micro Finance Institution

MoE=Ministry of Education

MoFED=Ministry of Finance and Economic Development

TVET=Technical Vocational Education and Training

MSE=Micro and Small Enterprises

SME=Small and Medium Enterprises

MUDC=Ministry of Urban Development and Construction

NGO=Non Governmental Organization

NMSEDPS=National Micro and Small Enterprises Development Promotio

PASDEP =Plan for Accelerated and sustained Development to End Poverty

TTIES=Technology Transfer and Industry Extension Service

UNESCO=United Nations Educational, Scientific, and Cultural Organization

UN= United Nation

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Abstract

The purpose of this study was to investigate the challenges and opportunities which were manifested while industry Extension Service program was implemented in Addis Ababa City administration.The type of study used was both qualitative and quantitative methods were employed for this research. A descriptive Survey research design methodology was used. Among existing 10 Sub-Cities in Addis Ababa city Administration, three Sub-Cities were selected namely Kolfekeranio, Nifas-Silk Lafto and Lideta using judgment sampling technique. Due to a large population size, these Sub-Cities were taken as a representative Sample of the whole sub-cities of Addis Ababa City Administration. Within these sample sub-Cities,Sample TVETs were taken for data source using a non-probability purpose and availability sampling technique From sample Polytechnic colleges trainers who are directly involved in IESP were selected using random sampling from each sample TVET polytechnic college. Pertaining MSE operators a stratified sampling method was employed. Regarding MSE and IESP experts' availability and availability sampling technique was used. Within sample sub-cities MSE and TVET officials, College deans and Vice deans, Sub-City TVET office officials and Vices were parts of subjects in the data collection process. In order to collect data, questionnaire, interview, focused group discussion, and document analysis were employed as data collection instruments. Data were collected from primary and secondary sources. The primary data was obtained from trainers, MSE experts, and MSE operators using questionnaires. Sub-City MSE Development and TVET office officials, vice officials TVET college deans and Vice deans and Addis MFI officials were primary data sources using structured interview. Secondary data was gathered from books, policy journals and strategy documents, periodicals. The findings of the study showed that the coverage of industry extension program is very low within three sample sub-Cities and pertaining the transition of Micro enterprises from one stage to another out of the given three transitional stages in the whole sample sub-cites is too low and for this one of the criteria to transfer from one stage to the next is getting Industry Extension support service. In some sectors there is shortage of trainers as the finding indicates from the questionnaire data analysis as well as from the interviewee respondents. High turnover of experts at Sub-City and Woreda level might blacken the successful implementation of industry extension program in current real situation and for the future. Lack of awareness and interest, of trainers, MSE operators, experts and other stakeholders of the support service are the main findings of this research paper. Regarding main challenges of MSE operators; low support of stakeholders, insufficient availability of premises and infrastructure in the shade areas were serious problems .There are also keep up opportunites that stakeholders and MSE operators enjoy while IESP is implemented To alleviate problems the study concluded by recommending Sub-city MSE and TVET officials and Federal level concerned Authorities and other stakeholders including Deans, Vice deans of TVET colleges, experts and trainers need to minimize the challenges to enhance MSEs development and growth by providing sustainable service and implementing the industry extension program using regulatory and enabling policies and strategies of the government and other enabling economic and social conditions.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Ethiopia is the second most populous country in sub-Saharan Africa with a population of about 92 million withone of the World's oldest civilizations. Ethiopia is also one of the world's poorest countries. The Country's per capita income of 410 dollar is substantially lower(UN, 2012) in (World Bank 2012).

Regarding the economic overview of Ethiopia, different population and economic figures are reported in different books but for the purpose of this research the most recent population and economic growth figure is used

As Cited by the National TVET Strategy of Ethiopia, Ethiopia is among the poorest countries in the world, some 31 million people live below the defined poverty line of 45 US cents per day and some million people are at risk of starvation each year. Although encouraging achievements in improving basic aspects of life were recorded in recent years, human power development still remain very low compared with the rest of the world. Rapid population growth constitutes major barriers to poverty reduction. Ethiopia's population is growing by around 2 million people annually, putting tremendous strains on the country's resource base, the ability to deliver services and the labor market (MoE, 2006:1).

In the TVET Strategy, a major barrier to economic development is the fact that the Ethiopian workforce of around 35, million people is characterized by low skill levels and very low average educational attainment. Only 10% of the urban population has post – Secondary education. As a consequence three-fourths of the workforce is concentrated in low skill employment sectors such as trade, services and elementary occupations. Less than half of the urban workforce is engaged in wage employment, where government is the most important single employer. A significant portion of the urban workforce work as unpaid family workers and more than 40% are self-employed in the informal economy. Most of these live on the edge of poverty(MoE, 2006:6).

Ethiopia has taken different measures to alleviate poverty and to ensure sustainable economic development. For this reason GoE of Ethiopia has taken different type of measures for economic and social development of the society. According to(MoFED 2010) Growth and Transformation plan(GTP) ,the National TVET Strategy, 2006 and the MSE Strategy,1997 are the major actions which have been designed by the Ethiopian Government to meet Millennium Development Goals.

The Country's development plan emphasizes employment and income earning opportunities in the modern sector, and on farms. Unemployment and under employment are targeted to youth and women. The 2005/6_2009/10 plan, a Plan for Accelerated andSustained Development to end Poverty/PASDEP/, explicitly acknowledged the issue of the labor market and unemployment (Broussard and Tsegay, 2012:6).

As stated by Broussard and Tsegay(2012:4), the GTP focused on job creation, with particular emphasis given to Micro and Small Enterprises(MSEs) based on their potential to create employment opportunities. According to them agriculture is the largest sector in Ethiopian economy contributing over 40 percent to Gross Domestic Product (GDP), 60 percent of exports and employing approximately 85 percent of the country's population Services constitute the second largest component of GDP, also contributing slightly over 40 percent, and finally industry contributes a little over 10 percent (World Bank, 2012) in(Brussard and Tsegay, 2012:4).

Between 2005 and 2010, as indicated by Broussard and Tsagay (2012) the service sector exhibited a remarkable performance, the industrial sector underperformed and even failed to hit its base case target. This signals an important structural weakness in the industrial sector is believed to be key for sustainable employment and growth of the economy.

To achieve GTP, the pillar economic actors from the sectors are the TVETs and MSEs have been given a paramount attention including Microfinance institutions. TVETs based on outcome based demand driven scheme, provide trained and skilled manpower. This skilled and trained manpower organized in MSEs and become self-employed by creating their own jobs and for this they get a loan service from microfinance institutions.

To support the work of MSEs another economic actor within TVETs has been designed by the GoE to foster more the role of MSEs for economic development the so called **Industry Extension Service** which enables MSEs to develop their capacity for growth.

Main Actors for Economic Growth of Ethiopia

In Great Transformation Plan (GTP), as a pillar strategy, the narrow base of the industrial sector is a challenge with significant implication on the country's capacity to generate foreign exchange and create job opportunities for its growing labor force.

In the plan period, the industry sector will get utmost emphasis by way of encouraging **export based and import substituting industries**. Vertical and horizontal linkages between agriculture and industrial sector will be promoted. The Government's program will also further focus on strengthening the **small-scale manufacturing Enterprises,** as they are the foundation for the establishment and intensification of **medium and large scale industries** besides **creating Employment opportunities** and accelerating urbanization it will play supportive role for the development of the agriculture sector. The government also encourages medium and large scale industry expansion (MoFED2010/11:9).

As clearly stated in the **MoFED (**2010/11) in the country's Industrial Development strategy, value adding private sector, is considered the engine of the sector's growth. Over the years the business environment has become friendlier and trade and investment environment have improved rapidly, thus attracting growing domestic and foreign private investment. As such, **the government will continue to make all the necessary facilitation and support to realize the GTP's industry growth objectives.**

Moreover what was included in GTP, to enhance expansion and quality of social development is about, Training and Education. In order to build on the progressive achievements in this regard, the government will increase its efforts in human resource development through improving access and quality of education in the next 5 years…the **TVET system will continue to serve as a potential instrument fortechnology transfer** , through the development of occupational standards, accreditation of competencies, occupational assessment and accreditation, establishment and the strengthening of the

curriculum development systems TVET institutions will serve as the centers of **Technology Accumulation for Micro and Small Enterprises.** Rigorous and regular monitoring and evaluation will be carried out amongst TVET institutions; both government and private monitoring will enable them to ensure the minimum levels of competency.

The established TVET program will be part of government's capacity building program. The program will be undertaken in co-ordination with institutions engaged in Micro and Small Enterprises to support and expand employment opportunities (MoFED2010/11:11).

Macroeconomic goals of the GTP is set with the overall policy objectives of maintaining the growth momentum witnessed during the period of the PASDEP and considering Ethiopia's long term vision of becoming middle income country and meeting the Millennium Development Goals (MDGs) at a minimum. TVET intake capacity according to (MoFED2010/11:18), in 2009/10 is 430,562 and 2014/15 is 1,127,330. This intake capacity increment of TVETs will affect also MSEs since they work collaboratively.

By ensuring faster and enhanced development of the industrial sector so that it turns out to the foundation and leading sector of the country's development activities, special emphasis will be given particularly to two major sub sectors which are for the **TVET**s as well as for **MSEs**. Efforts will be exerted to vastly develop the MSE sector, to play its part towards employment generation within the country. Due attention will also be given to the development of Small and Medium Enterprises.

To address the above implementation strategies to reinforce the development of MSEs, the GoE of Ethiopia designed a policy to make linkage between TVET and MSEs the so called **Industry Extension Package.**

As it is stated by City Government of Addis Ababa TVET Agency (2012:1) TVET institutions provide the new service package, which targets all the major headaches of MSEs in the country. The strategies stated that the government is committed to foster and support SMEs in order to solve unemployment, in the urban areas. As ambitious five-year Growth and Transformation Plan(GTP) of the country focuses on laying the ground

for transformation of the economy from agriculture to industry ,giving focuses and priority to MSEs .

1.2 Statement of the Problem

Micro and Small enterprises are categorized under the informal sector and have a paramount importance for reduction of unemployment. The informal sector has its share for the GDP as well as it takes a lions share in job creation for women as well as for the youth. In many countries the contribution of MSEs for the economy and for social stability is not negligible. But this sector has different bottle necks to be grown as it is expected.

As citedin the MSE strategy over 89 percent of the informal sectors are concentrated in manufacturing, trade, hotel and restaurant activities. Of the small scale manufacturing industries 85 percent are engaged in the manufacture of food, fabricated metal, furniture and wearing apparels. The survey also revealed that the number of people earning their livelihood from the informal sector activities and small scale manufacturing industries is eight times larger than those engaged in the medium and large scale industrial establishments. The survey also indicated that the increased role and contribution that the MSE sector could have provided to the national economy is largely constrained by the various policy structural and institutional related problems and bottle necks (MoTI, 1997:8)

It is belived by the GoE that this sector helps to make market stability and becomes a milestone for unemployement reduction and for the transformation of the economy from Agricultural leadeconomy to the industrial lead economy.

Different researchers tried to investigate those bottle necks of MSEs. According to (MUDC, 2013:61) there have been many challenges MSEs faced which are internal and external. According to its findings in selected regional Major towns and City of Addis Ababa , the main challenges are lack of finance, lack of working premise,lack of access to market, and in Addis Ababa the critical number one problem is lack of access to land and MUDC recommended that effort should be exeherted from all the concerned bodies to create a vibrant,growing and shock resilient sector by carrying out further studies that specifically identifies many of these specific problemlocationsalong with their remedies.

An other researcher in Kenya,(Nyang'ori,2010:21) praphraised those challenges of MSEs which affect their growth and profitability and hence,diminish their ability to contribute effectively to sustainable development. According to Nyang'ori these problems include lack of managerial training and experience, inadequate educational skills, lack of credit, National Policy and regulatory environment, Technological Change,Poor infrastructure and Scanty Market information are major problems.

For MSEs development and growth those problems which hampered their profitability and growth need to be minimized and if possible they should be avoided. Believing in this GoE brings a new package which solves major headeches of MSEs (AATVETA, 2012). The support service is provided via TVETs using four intervention areas, Technical competency, Entrepreneurship competency, Technological support competency and productivity and quality competency. The intention of this study is to investigate the challenges and opportunities while industry extension program is implemented to that of MSE operators, TVET deans, vice deans, experts and trainers MSE Development office officials and experts.What makes different this research problem from previous researches is that IESP is a recent policy package for the support service of MSEs by TVETs and it is a policy which is designed to solve problms of MSEs.This research tried to fill the gap whether the support service is implemented as it is expected,implementation of the four intervention areas , convinent conditions and merits gained after the support by MSE operators,main challenges of TVETs,MSE officials and experts,MSE operators that they faced during implementation and from the findings to forward possible recommendations and since IESP is a new package this research become as an initial clue for further investigation of problems in this area.

The inclination of the above idea is that TVET and MSEs are working together to alleviate poverty to create job opportunities and to make youth and women to be self-employed in the long run for further growth of the industrial sector. TVETs are the incubations of technology and this technology has to be identified, accumulated and transferred to reinforce MSEs and to make them technologically capable and to be able to produce internationally competent products and be able to produce import substitution items. For this reason a new program is designed by the government the so Called

Industry Extension Service Program to make linkage between TVETs and Micro and Small Enterprises.

Having this in mind, the purpose of this research paper is to **assess the challenges and Opportunities while Industry Extension Service program is implemented** by TVET institutions and colleges to reinforce MSEs and it is based on the following objectives.

1.3 Objectives of the Study

1.3.1. General Objective

The overall objective of the study is to describe and identify the practices, strengths, weaknesses, opportunities and threats, experiences learnt and options for better coordinated practices of industry extension service package.

1.3.2. Specific Objectives.

Based on the above general Objective the following Specific objectives were formulated.

1. Review and evaluate the implementation of industry extension Service program to that of TVET Colleges and MSEs.
2. Identify the Challenges that are faced by the TVETs and MSEs during the practice of IESP and reveal the factors that contribute to those challenges.
3. Identify the Motivational Opportunities that are taken as a good experience for Execution of IESP for further success.
4. Reveal government policies, Strategies and actions towards implementation of IESP and review IESP Stakeholders role in the implementation of these policies and strategies.
5. Identify the motivational factors of MSE Operators that they gain after the industry service program is implemented.
6. Reveal Success indicators of Industry Extension Service program

1.4 Basic Questions of the research

This research paper assesses the challenges and Opportunities that are faced while the Industry Extension program is implemented by TVET and MSE Stakeholders. To address this the following basic question were formulated.

1. How are TVETs and MSEs practicing the industry extension service Program?
2. What are the challenges of TVETs and MSEs while the industry extension Service is implemented?
3. What are the opportunities for Industry Extension Service Program Stakeholders while they are executing the work?
4. Do all Stakeholders of the program work collaboratively towards this program achievement using the policies, strategies, action rules and regulations?
5. What motivational factors MSE Operators' gain after they get the industry extension Service support from TVETs?
6. What are success indicators of industry extension service Program?

1.5 Significance of the Study

To achieve Growth and transformation plan and to work towards new Millennium development goal; to transfer Ethiopia's Economy from Agriculture lead to industrial lead economy, different types of economic policies and strategies have been designed by GoE. Therefore Ethiopia uses TVET and MSE as Economic growth mile stones to alleviate poverty and to bring the country into a middle income country by 2025. One of this is the **technology transfer and Industry extension Service package** provided by TVETs to reinforce MSEs for the transfer to SMEs and then to Medium and large scale industries; to enable them competitive actors in the international market; to be able to produce quality products for export and import substitution items. MSEs are also creating a linkage with the agriculture sector to get inputs for their production and they are the means for industrial transformation. Having this in mind, this study contributed a lot to see the prospects of Industry Extension Services and to overview the practices,

challenges, opportunities and its benefit towards MSEs growth was the central point of this research.

1) It tries to show the weaknesses and strengths while the package is implemented by the stakeholders and the remedial actions they can take.
2) It was useful to take good experiences from well-done practices and learn from weaknesses.
3) It had its own contribution for decision makers to take corrective actions looking at strengths, weaknesses and opportunities and then strengthening good experiences and expanding them to others from the findings of this research paper.
4) Moreover, this research did not touch the last remedial recommendations in the practice and challenges and opportunities of industry extension service, so for other researchers it became the initial point for further investigation.

1.6. Delimitation of the Study

This research was delimited in three Selected Sub-Cities of Addis Ababa City Administration. The population assumed to be all TVETs and MSEs within Addis Ababa City Administration. Concerning Sample Sub-Cities Lideta,KolfeKeranio and Nifas Silk/Lafto were selected sub-cities .Within these sample Sub-Cities Sample TVET colleges and instutions were taken. MSE Operators, MSE officials and Agencies', TVET officials and Agencies of each Sub –Cities were subjects or sources of data for this research. Moreover, data were taken only from public TVETs since the private TVET colleges and TVET institutions were not yet involve in the industry Extension service program.

1.7. Limitations of the Study

The qualitative data collection methodology particularly the choice of small sample population through purposive sampling method were considered as the main source of limitation for generating the results of the practices, challenges, opportunities of the Industry Extension Service Program. This was sought when it was on the country level.

All the responses of the interviews and discussions, though subjective in nature, were taken to be the representations of the actual scenario.

The limitations of semi-structured interview might be considered in terms of whether the data obtained reflect the actual facts grounded in the day to day practices of IESP.

Because of time and budget factor, the research was conducted only in Addis Ababa city Administration even a very small number of Sub-Cities taken as a sample.

The limitations that were discussed above influences the validity of the research in terms of the ability to generalize the results to the entire population of TVETs and MSEs in relation to Industry Extension Services program. Though these limitations were the shortcomings of this research paper, it became a base for further investigation by other researchers in this area.

1.8. Operational Definition of Terms

Technical Vocational Education and Training (TVET):

-means in addition to general education, the study of technologies and related Sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupants in various sectors of economic and social life.

Industry Extension Service

-The service which is provided to MSEs by TVET institutions and colleges among other includes Skills trainings on Entrepreneurship, Business Management, Best Technology adaptation and transfer, Productivity, quality, maintenance and product standardization and Certification. .

Kaizen:

-Japanese term which means continuous improvement and the training that is given to MSEs for better management of their business in the form of 5S and Seven wastes management to increase quality of their products and to increase quality and productivity of products and acquitnt themselves with the philosophy of continuous improvement.

Micro Enterprises:

-are those small business Enterprises with a paid-up capital of not exceeding birr 20,000 and from start-up stage to maturity stage and subjected to support Service by TVETs.

Small Enterprises:-

-are those business enterprises with a paid-up capital of above 20,000 and not exceeding birr 500,000 and supposed to be supported by TVETs in the industry service program.

Competency based training:-

It is Vocational education and training that places emphasis on what a person can do in the work place as a result of completing a program of training or based on work place experience and training for further assessment becoming certified in hes/her occupation.

1.9. Organization of the Study

The paper has five chapters. **Chapter one**; Background of the study, statement of the problem, Basic questions, Objectives of the study, significance of the study, scope of the study, limitation of the study, definition of terms and organization of the study; **Chapter two** discusses Review of related literature; **Chapter three**, Methodology and data analysis; **Chapter Four**, Summary and Conclusion and ; **Chapter Five**, Recommendations. Besides, References and Appendices will be enclosed on this pap

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. Rationale of Industry Extension Service Program.

In order to have a brief theoretical frame work and concept of IESP, this chapter will provide the major works done by different writers and authorities in the area of the problem under study.

In previous years Ethiopia was following Agriculture lead Economy. The main attention of the GOE was on the agriculture sector and most workforces have been engaged in on this sector and its contribution to GDP was high when it is compared with the service and industrial sectors. Next to agriculture sector, better contribution is seen from the service sector and the industry sector is the least and its contribution to GDP and to the work force employment opportunity is very low.

Agriculture is the largest sector in the Ethiopian economy contributing over 40 percent of the GDP (Gross Domestic Product), 60 percent of exports, and employing approximately 85 percent of the country's population. Services are also contributing slightly over 40 percent the second largest component of the GDP, and finally industry contributes only 10 percent of the GDP. The industry sector is creeping on its infant stage. Between 2005 and 2010, the service sector exhibited a remarkable performance (far more than planned), however, the industrial sector under- performed and even failed to hit its base case target. This signals an important structural weakness of the economy as success in the industrial sector is believed to be key for sustainable employment and growth of the economy. (Broussard and Tsegay, 2012:4).

The GOE of Ethiopia has designed different types of economic policies and different measures for further development of the economic sector. The Plan for Accelerated and Sustained Development to end Poverty (PASDEP) is one of the measures which have been taken by GOE.

The plan for Accelerated and Sustained Development to end Poverty(PASDEP), Ethiopia 's Second poverty Strategy paper, estimates that the country has to raise its

average economic growth rate to 8 percent annually in order to achieve the millennium Development Goals. . It is said that over 26 percent of the work force is unemployed in urban areas and a much larger figure in the rural areas (Anbesu and Ameha,2009:4). Over all the GoE of Ethiopia has designed a new economic structure arrangement especially to support the industrial sector and push up in order to make sustainable employment opportunities.

The current five year development plan (2010/11_ 2014/15), the Growth and Transformation Plan (GTP), does not directly address the issue of youth unemployment, but rather implicitly through improved performance of the various sectors in the economy. The plan also addresses the economic and social development, particularly MSEs; continue to receive special attention as potential employment hubs and poverty reduction mechanisms. The plan emphasizes tailoring TVET programs with the demands of the economy and to continue to scale up MSE expansion as strategies tackling unemployment in the country (MoFED, 2010) in (Brussard and Tsegay, 2012:7).

As it is indicated by (Brussard and Tsegay, 2012), in the current five year Growth and Transformationplan to decrease unemployment , the action taken by the government of Ethiopia is the expansion of Micro and small enterprises . The designed policy, IESP is giving different kinds of support services like training to fill technical skill gaps,KAIZEN like 5s and Seven waste implementation ,improving quality of product,and increase in productivity,Business management and development skills ,customer handling,developing entrepreneurship culture and bookkeeping skills, assessment and certification,technology adaptation and transfer are major areas of supports under industry extension program and all these are support services provided by Technical and Vocational colleges or institutions to MSEs.

Technical and Vocational Education and Training(TVET) institutions will provide the new service package, which targets all the major headaches of MSEs in the country. The strategies stated that the government is committed to foster and support MSEs in order to solve unemployment in the urban areas. As the ambitious five-year Growth and Transformation Plan (GTP)(MoFED, 2010/11) of the country focuses on laying the ground for the transformation of the economy from agriculture to industry, giving focus

and priority to MSEs. Even though it will be difficult to provide industry Extension Services to all MSEs at the beginning, it will be started by providing the service to selected existing enterprises and to the enterprises engaged in development focused sectors like MSEs, who are engaged in manufacturing sector, especially those who produce products for export market or replace import items and those who are already clustered will primarily get industry Extension service according to the strategic document.(AATVETA,2012).

Therefore, IESP creates a bond between TVETs and MSEs for mutual benefit of both stakeholders, MSEs to get the support services for their further growth and TVETs get co-operative training for their trainees.

2.2 Meaning and Concept of Industry Extension Program

> ***የኢንዱስትሪ ኤክስቴንሽን አገልግሎት ማለት የጥቃቅንና አነስተኛ ኢንተርፕራይዞችን ችግር በፍላጎት ላይ ተመስርቶ የለየና የተሙዋላ መረጃ ማደራጀትና ስልጠና እና ምክር የመስጠት የቴክኖሎጂ ልማት ግብይት፡ ምርጥ ተሞክሮ ቅመራና ማስተላለፍን የሚያካትት ድጋፍ ነዉ።***

Source: Industry Extension Manual, City Government of Addis Ababa page-4

> *Therefore according to the English Version of the above industry extension program definition it means identifying the problems of MSEs based on their interest and then giving training and advice and it encompasses a support on best technology adaptation and transfer.*

The services that are provided to MSEs by TVET institutions among other includes skills trainings on entrepreneurship, business management, best technology adaptation and transfer, productivity ,quality, maintenance and product standardization and certification (AATVET, 2012) . When the IESP is designed by the GOE for the extension of the industry sector via MSEs with an actress role of TVETs and other stakeholders it has its own vision ,goal and mission of industry extension program.

2.3. Vision, Goal and Mission of Industry Extension Program

Vision_ Technical and Vocational Education and Training in Ethiopia seek to create competent and Self-reliant citizens to contribute to the economic and social development

of the country thus improving the livelihoods of all Ethiopians and sustainably reducing poverty.

Goals_implementing Technology Transfer and Industry Extension Services to assure growth and competitiveness of Micro and Small Enterprises Development.

Objective_ Develop capacity of Micro and Small Enterprise Operators in terms of competency and Technology (AATVETA, 2012).

Having the above mission, goals and objectives, the IESP addresses the improvement, growth and competitiveness of MSE's and enhances their contribution on employment opportunity creation and development and growth of the industrial sector.

2.4. Stakeholders of Industry Extension Program

IESP has its own customers and stakeholders to be implemented. When as an economic policy IESP is designed by decision makers hieratically. The customers and stakeholders (implementers) of the program are

2.4.1. Customers and Stakeholders of IESP

Regarding customers of IESP are Micro and small enterprises,Industries and factoris ,City agriculture and Municipality services,Other industries who wants industry extension service support and technology Developemnt Seeking socities and trainees are customers of industry extension program. Pertaining to stake holders, Ministry of Education ,Capacity Building Office,Micro and Small Enterprise Development Office,RegionalCoCoffice,Addis Ababa Municipality Service Agency,EthiopiaScienceand Technology Agency,Trade and Industry DevelopemntBureau,Office of Patent and Copyright,Labour and City Development Office ,Women ,Children and Youth Affairs are the Stakeholders, TVETs, Addis Micro |Finance Institution are Stakeholders of IESP (AATVETA 2013).

Though the main actors for the implementationof industry extension program are TVETs and MSEs the above stakeholders have directly and indirectly have their own part to implement the package for further development of MSEs. When a new economic policy is designed the active participation of implementers is vital for its success. Hence policy makers specify stakeholders of a given program with full duties and responsibilities. Here

with the problem which is under study the target stakeholders are TEVTs, MSEs , MSE offices, TVET Agencies and Micro Finance institutions(Addis Micro Finance}.

2.5. Intervention Areas of Industry Extension Program Implementation

According to Addis Ababa TVET Agency (2012) the intervention areas for Implementation of technology Transfer and Industry Extension Service program are:-

1. Technical Competency
2. Entrepreneurial Competency
3. Technological Capability
4. Quality and Productivity Competency

2.5.1 Technical Competency;

This includes Filling Gaps and assess competency and is done by TVET trainers who have the skill in their occupation and competent in their field of study. TVET institutions or Colleges have the responsibility to accomplish this technical competency with MSE experts and officials and work collaboratively in order to enable MSEs technically competent (AATVETA: 2012).

2.5.2 .*Entrepreneurial Competency*

Entrepreneurship in some economics books considered as one of the factors of production. Creating and entrepreneur society and entrepreneurship culture has its own impact on creating a strong and committed work force with in a society and the load of the government the sole role of the government in creating job opportunity have been decreased of entrepreneurs take their part in job creation for themselves as well as for others.

Here before we go through the intervention area of entrepreneurial competency it is better to bring the concept of Entrepreneurship and personal traits of Entrepreneurs whichwerediscussed by other researchers.

2.5.2.1 Concept of Entrepreneurship

As cited by(Gemechis,2007: 1) in Daniel (2008: 10) in) out sourced from the WIKPEDIA, the entrepreneur is primarily motivated by overwhelming need for

achievement and strong urges to build. Therefore, entrepreneur is a person who has a need to achievement, take a risk, and have self-confidence. The main characteristics of entrepreneurs are a high need for achievement, willing to take moderate risks, and strong self-confidence. Entrepreneurship is also the symbol of business strength and achievement. Entrepreneurs are the founders of today's business success. Their sense of opportunity, their drive to innovate and their capacity for accomplishment have become the standard by which free enterprise is measured. Entrepreneurs will continue to be critical contributors to the economic growth through their leadership, management, innovation, research and development effectiveness, job creation, competiveness, productivity and formation of new industry.

Development is more than ever linked to entrepreneurship. Institutions and individuals promoting development now see Entrepreneurship as a strategic development intervention that could accelerate the development process. Furthermore institutions and individuals seem to agree on the urgent need to promote entrepreneurship as an enormous employment potential, politicians see as the key strategy to prevent unrest; farmers see it as an instrument for improving farm earnings, women see it as an employment possibility near their home which provides autonomy, independence and reduced need for social support. To all these groups however, entrepreneurship stands as a vehicle to improve the quality of life for individuals, families and communities and to sustain development in the economy and environment (Gemechis,2007:1).

2.5.2.2 Innovation and Creativity

Throughout history, great innovation has periodically occurred to thrust humankind forward with new technologies, new industries, or new economic systems.According to Holt Creativity is a prerequisite to innovation. The terms creativity and innovation are often used to mean the same thing, but each has a unique connotation.Creativity is "The ability to bring something new into existence." And this definition emphasizes the ability not the activity. A person may therefore conceive of something new and in vision how it will be useful, but not necessarily take the necessary action to make it reality. Innovation is the process of doing new things. Ideas have little value. Until they are converted into

new products, services or processes. Innovation therefore, is the transformation of creative idea into useful applications, but creativity is a prerequisite to innovation. The creative process in general is Idea generation, preparation, Incubation, Illumination and Verification **(**Holt, 1998:33**)**

2.5. 2 .3 Innovation and Entrepreneurship

If creativity is the seed that inspires entrepreneurship, innovation is the process of entrepreneurship. Drucker in Holt(1998) elaborates" Innovation…is the means by which the entrepreneur either creates new wealth producing resources or endows existing resources with enhanced potential for creating wealth." Innovation implies action. The innovation process includes change of the idea or resources into useful applications and then new products or services will be emerged.

2.5.2.4. Translation of Creative idea into useful application

Analytical planning is useful to identify product design, market strategy and financial need; in case of organizing recourses to obtain materials, technology, human resource and capital and ; in the implementation stage to accomplish organization, product design and manufacturing of services and finally Commercial application, to provide value to customers, rewards for employees, revenue for investors and satisfaction for founders(Holt,1998:39).

2.5.2.5. Technological Innovation

The seven condition people involved required for success in technological innovation are related particularly to the success of the three key people(inventor, innovator and investors) involved and partially to the environment in which innovation take place. Although these conditions were derived from corporate studies in research and development they apply equally to new entrepreneurial ventures and they include;

1. An understanding person in exchange leadership position to support strategic decisions that encourage creativity and innovation development.

2. An operational leader to carry out the essential tasks of converting knowledge into a commercial application.
3. A clear need for the application by sufficient potential consumers to warrant the commitment of resources to the innovation,
4. The realization of the product, process or service as a useful innovation providing value to society.
5. Good cooperation among the crucial players and among diversified functions in an organization, all of whom, together, must bring the idea to fruition.
6. Availability of resources and the supporting technology to succeed in the endeavor.
7. Cooperation and support from external sources who can influence the success of an innovation, including government agencies, investors, vendors, suppliers, and creditors (Holt ,1998:40).

2.5.2.6. Personal Qualities of Entrepreneurs

To up hold entrepreneurial behaviors and maintain strong persistence in the face of all challenging situations in establishing a new business and becoming successful entrepreneur have to have certain specific characteristics and pattern of behaviors and maintain strong persistence in the face of all challenging situations, entrepreneurs have to have certain specific characteristics and challenge of behavior, which the entrepreneurs find important in achieving their goals, Rumball (1989:49) in Eyasu(2007:22) identified ten characteristics as the source of strengths of successful entrepreneurs. These are inner power, business judgment, perseverance, motivation skills, idea generation, technical skills, personal values, marketing skills, and sympathy.

Werotaw (2006) in Eyasu (2007:22) on the other hand states that successful entrepreneurs have ten abilities as the prime causes and moving power of their success. These include goal setting, risk taking, opportunity seeking and initiative ,Persistence, commitment to the work contract, efficiency and quality, information seeking, persuasion and networking, independence and self-confidence, systematic planning and monitoring. Although entrepreneurs must be owners of business enterprise owners are not necessarily entrepreneurs.

2.5.2.7. Lessonsto be learnt to implement IESP from the above theoretical Aspect of Entrepreneurship

Over all entrepreneurship as one of the intervention area to implement IESP knowledge, Skill and attitude (KSA) imparted to MSE operators must be geared with personal traits and abilities of entrepreneurs. This enables to create an entrepreneurship culture within the society. Trainers develop modules and fill gaps on the area of entrepreneurship. The business management skill, market assessment, customer handling techniques, accounting practices, new business idea generations, innovation of new technologies, are the most important packages to give support service of entrepreneurship to MSEs.The endeavor of trainers to implement this intervention area should be supported by stakeholders and higher officials by arming the necessary (KSA) having different training programs, providing the necessary facilities ,training materials, financial support with necessary co-ordination among stakeholders. In case of MSE operators as Holt(1998) elaborated that innovation to be effective coordination and support from external influential bodies is vital.

2.5.2.8. Employment, Underemployment and Unemployment.

The scarcity of economic resources forced every economic system to go through choices and make decisions how to use them effectively. One of the resources is manpower resource which makes other means of production effective. Our country has sufficient amount of manpower resource and the available trained and skilled manpower has to be absorbedwithin the existing economy. Even with in developed countries the occurrence of Unemployment and underemployment is a common phenomenon as it is reported in different economics books from different findings. Like other developing countries , the main problem of our country is unemployment and under employment and the main target of the existence of Micro and Small enterprises is to have their own part to decrease unemployment.

Economically active population has always been toward and extensive definition of the concept of employment .Thus, the current international definition of employment stipulates that it is sufficient for a person to be engaged in an economic activity for at

least one hour during the reference period to be classified as employed.(Verma, et al,1992:121)

Underemployment is considered to be extreme situations of partial lack of work are all embodied within the concept of employment.

The importance of the concept of underemployment has long been recognized. According to the 1966 ICLS resolution, underemployment exists when a person's employment is inadequate in relation to specified norms or alternative employment, account being taken of his occupational skill (training and working experience.(Verma, et al ,1992).

Two principal forms of underemployment are distinguished: Visible underemployment reflecting an insufficiency in the volume of employment and invisible underemployment, characterized by low income, underutilization of skills, low productivity and other factors. According to the international definition" Persons visibly underemployed comprise all persons in paid or self-employment ,whether at work or not at work, involuntarily working less than the normal duration of work determined for the activity, who were seeking or available for additional work during the reference period. This means that visible underemployment is defined as a sub category of employment (Verma, et al1992: 121).

Unemployment- the International Standard definition of Unemployment (ILO, 1983) in Verma et al,(1992:97), is based on three criteria to be satisfied simultaneously" without work","currently available for work" and "Seeking Work". Accordingly, the "unemployed" comprise all persons above the age specified for measuring the economically active population who during the reference period were.

In our country, unemployment and underemployment are common phenomena. Therefore, Micro and Small enterprises have their own contribution to minimize unemployment and underemployment so that they need technical, technological, financial, training, fulfillment of premises, entrepreneurship skill support and all these are provided by competent and professional trainers through TVETS.

2.5.2.9. Concept of Self-employment

As cited by (Eden, 2012:10),Self-employment has been defined by different authors to mean different concepts. Startiene et al,2010) in (Eden,2012:10), points out that, researchers and various institutions provide a wide-range of self-employment concept understandings (. Spencer and Gomez ,2004) in (Eden ,2012), defined self-employment as the simplest type of entrepreneurship since self-employment seldom necessitate substantial financial investments, advanced management skills or understanding of the legal scheme for setting up or operating businesses. (Zimmermann ,2004) by (Eden,2012), argues that self-employment is effective, but risky form of entrepreneurship, providing individuals a sense of higher self-independence and more satisfying lives .According to (Eden ,2012:10), based on the literature analysis, entrepreneurship, Self-employment, job creation, and MSE undertaking are taken analogous ideas although they are not exactly the same in other contexts.

According to (Verma et al, 1992:97), the notion of seeking self-employment requires particular attention. The dividing line between seeking work activities and the self-employment activity itself is often difficult to draw in the case of self-employed persons. In many situations, activities such as looking for potential clients or orders, or advertising the goods or services produced, are an essential component of the activity itself.

Micro and small enterprises are self-employed and even they create job opportunities for others. They get different support from TVETs so that they make grown their enterprises further and even they make cluster with other similar micro enterprises and changed into Medium and Large scale industries so that they create job opportunities for a large number of job seekers so that they become benefited and make others to be benefited.

2.6. Technological Capability;Identify, Select, accumulate and transfer.

Another intervention area of IESP is making MSEs technologically capable and copying different technologies so that MSE operators use those copied technologies and generate their own income rather than doing the same thing by many enterprises. As a principle it is provided that TVETs are the incubation places of those copied and invented technologies and these technologies are accumulated and transferred turn by turn after the

necessary technology formalities are fulfilled. There are different development target sectors for economic development in the urban areas according to the case of our country. To make MSEs technologically capable and to bring new innovators, TVETs select, accumulate and transfer new, copied and improved technologies to MSEs.

2.6.1. Development Target Sectors.

As indicated by MUDC(2013),the sectors that are given priority in the strategy documents for economic development of the country in most policy of Ethiopia, example GTP,(MoFED,2010), like Construction, Metal and Wood Working, Textile and Garments, Leather and Footwear, Agro Processing, roads and other infrastructures as growth oriental Sectors.

> **በቴክኒክና ሙያ ስትራቴጂው ላይ በግልጽ እንደተቀመጠው የቴክኒክና ሙያ ማሰልጠኛ ተቋማት ቴክኖሎጂዎችን በመቅዳት ወደ ኢንዱስትሪው ማስተላለፍ የሚጠበቅባቸው ሲሆን ቴክኖሎጂዎቹም የአካባቢን ችግሮች ለመፍታት የሚያስችል ጉልህ አስተዋጽኦ እንዲያደርጉ ይጠበቃል፡፡ በመሆኑም በኢንዱስትሪ ልማት ስትራቴጂያችን ላይ በተቀመጠው መሠረት የትኩረት ኢንዱስትሪዎችን በቅደም ተከተል በመለየትና በእያንዳንዱ የትኩረት ኢንዱስትሪ ላይ የእሴት ሠንሠለት ትንተና በማካሄድ የቴክኖሎጂ ክፍተት በመለየት ክፍተቶቹን የሚሞሉ ቴክኖሎጂዎችን በመምረጥና አዋጭነታቸዉን በመተንተን ጥራቱን የጠበቀ ናሙና በማዘጋጀትና ተገቢነቱን በመፈተሽ ወደ ተለያዩ ደረጃ ላይ ወዳሉ ኢንዱስትሪዎች መተላለፍ ይኖርባቸዋል፡፡ ይህም የኢንዱስትሪዎችን ተወዳዳሪነት የሚያጎለብት ሲሆን ሥራውን ለመሥራት ብቃት ያላቸውን ጥቃቅንና አነስተኛ የንግድ ተቋማት በቴ/መ/ት/ሥ/ ተቋማት በመፈልፈልና በማብቃት ተፈላጊ ቴክኖሎጂዎችን በጥራት አምርቶ ማሸጋገር ይጠበቃል፡፡ የቴ/መ/ት/ሥ/ ተቋማት በልማት ቀጠናው ውስጥ ላሉት የትኩረት ኢንዱስተሪዎች ተገቢና ተፈላጊውን ቴክኖሎጂ በመምረጥ፣ አብዝዎችን በማብቃት እና የተፈጠሩትን ጥቃቅንና አነስተኛ ተቋማትን በቴክኖሎጂ ሽግግር ስራ ብቁ ተዋናኝ እንዲሆኑና ሀብት እንዲያፈሩ ለመርደት በብቃት ሥራውን መምራት ይጠበቅባቸዋል፡፡**

Source: Industry Extension Service Implementation manual (AATVETA:)

> *According to the English version of the above Amharic concept, it is clearly stated in the TVET Strategy of Ethiopia is that; TVETs identify, select, accumulate and transfer technologies to MSE enterprises. These technologies are expected to solve social and economic problem of the society. As it is cited in the industrial strategy of Ethiopia ,industrial sectors for development formulates different value chain analysis and by identifying technology gaps and selecting best technologies and preparing*

sample from those technologies and selecting them to transfer to industry levels. This enhances the competitiveness of the enterprises. To accomplish this activity, competent MSE enterprises will be incubated by TVETs and selected and necessary technologies will be transferred to the industry. TVETs are expected to produce competent MSEs by selecting technologies, accumulating and transferring using MSEs in the development targeted sectors.

In general technologies are selected,copied,adopted and accumulated byTVETsandtransferred for further growth of MSEs.This also helps for further technological transfer of our country and MSE operators can produce import substitution items and the society at large will be benefited from those technologies and the income and profitability of MSEs can be increased.

2.6.2. The Concept of Value Chain

It is an important aspect to know the process of the product starting from its raw material production until the change of the product into finished goods and available for consumers to be purchased. Value chain shows from what material and ingredients theproduct is produced and generally shows the process of production of the product. According to the Addis Ababa TVET Agency industry extension manual

As it is taken from a WIKPEDIA, a free Encyclopedia, Value chain is a chain of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market. The concept comes from business management and was first described and popularized by Michael Porter in his 1985 best – Seller, competitive advantage: creating and sustaining superior performance.

The idea of the value chain is based on the process view of organizations, the idea of seeing a manufacturing(service) organization as a system, made up of sub systems each with inputs, transformation processes, and outputs involve the acquisition and consumption of resources- meney, labour, materaisls, equipement, buildings, ladn admisntration and management.

The concept of value chains as decision support tools was added onto the competitive strategies paradigm developed by porter as early as 1979. Inporter’s value chains, Inbound Logistics, Operations, outbound Logistics, Marketing and Sales and service are

categorized as primary activities. Secondary activities include procurement, Human Resource Management, Technological Development and Infrastructure (Porter, 1985: 11-15).

The emergency of global value chains(GVCs) in the late 199s provided a catalyst for accelerated change in the land scope of international investment and trade, with major, far-reaching consequences on governments as well as enterprises (Gurria,2012).

The appropriate level for constructing a value chain is the business unit. Products pass through activities gives the products more added value than the sum of added values of all activities.

As Value Chain overviewed by different writers taken from WIKPEDIA a free encyclopedia it attracts business men as a catalyst(promoter) of the product even in the world market. TVETs are also responsible to prepare different types of value chain analysis and accumulate them and transfer to MSE operators and MSEs in turn after they produce the product that product must have a documented value chain analysis to convince their customers.

2.7. Quality and Productivity Competence; plan, do, check and act

Other intervention area of IESP which is targeted to give support for MSE operators to improve their product quality and productivity is quality and productivity competence on the principle of plan, do check and act. The word KAIZEN a Japanese term means that "Continuous improvement". This philosophy recently brought to our country and organized as an institution at the Federal level and it is on the way to be implemented and for industries, factories, for different governmental and non-governmental institutions apply it to satisfy their customers. Kaizen is not applied to keep quality of product only but also to draw a line or system for better performance of the organization and to create a committed and modernized society and to achieve organizational goal by giving better service to the customers of the particular business entity or organization . From this point of view TVETs give a KAIZENServicein the form of training taking parts of it like 5S and 7 wastes avoidance concepts so that MSE operators improve the quality of the product and increase the productivity of their enterprise to be competitive with other

enterprises to attract more customers.To elaborate the concept of KAIZEN the following is taken from other writers.

2.7.1 Meaning and concept of "Kaizen"

> *As it is cited in Wikipedia, Kaizen, Japanese term for "improvement", or"change for the better" refers to philosophy or practices that focus upon continuous improvement of process in manufacturing, engineering, and business management. It has been applied to healthcare, psychotherapy, life coaching, government banking and other industries. When used in the business sense and applied to the workplace, kaizen refers to activities that continually improve all functions, and involves all employees from the chief executive to the assembly line workers. It has also applies to processes, such as purchasing and logistics, which cross organizational boundaries into the supply chain. By improving standardized activities and process, it aims to eliminate waste. kaizen was first implemented in several Japanese businesses after the Second World War Influenced in part by American business and quality management teachers who visited the country. It has since spread through the world and is now being implemented in many other venues besides just business and productivity.*

It encompasses all the areas that are related to quality, cost and delivery whose simultaneous improvements are essential in achieving customer satisfaction and success of the organization ,KAIZEN, as undertaken by an enterprise, involves continual, dynamic and self-disciplined practice in the quest of improvements towards ever higher quality and productivity . Kaizen is important that shows how smallest ideas can lead to the greatest results. In most cases these are not ideas for major changes. Kaizen is based on making little changes on a regular basis always improving productivity, safety and effectiveness while reducing waste.The three phases of Kaizen event are Planning and Preparation, Implementation, Presentation, Celebration and followup

2.7.2.1. Planning Phase

This phase leads to through the steps of preparing for KAIZEN event. The area will be selected and then select the problem for improvement. The reason you choose this particular area for a KAIZEN event is to implement 5S in that area.

2.7.2.2. Implementing phase

Implementation phase is implementing 5S. 5S starts you off on the right foot. It is a perfect tool for bringing a team of operators together and allowing them to focus on their

areas first. It teaches the workers on their own operation and identifies the waste in their work without being scrutinized or criticized by others.

5S is a system of steps and procedures that can be used by individuals and teams to arrange work areas in the best manner to optimize performance, comfort, safety and cleanliness.It has four principles namely elimination of waste,co-operative effort,attract root cause,and human being is not infallible or perfect

2.7.2.2.2. Objectives of 5S

There are different objectives while 5S is implemented. Some of them are:- Productivity improvement by saving time, space, etc.; reduced cycle times, increased floor space, improved working conditions, reduced lead times, established operating procedures, increased profitability, reduced search time, improved delivery times, lowered incident rates, reduced inventory costs, improved data base management, improve housekeeping, beauty by simple means, improved working team performance, improved inventory management, improved customer satisfaction, reduced number of accidents, improved morale, enhanced communication, increased adherence to established standard operating procedure, improved access to information, enhanced cross shift communication, enhanced levels of communication. There are steps for implementation of kizen which are plan,educate ,evaluate,initiate the 5S's and measuring results

2.7.2.2.4. 5S Implementation

If workers of an organization do not do 5S they cannot do any other work efficiently. They are features which are common to all places and are the indicators of how well an organization is functioning.

SEIRI ⇨ Sorting:-

Distinguish between necessary and unnecessary items and eliminate the unnecessary items. Establish criteria for eliminating unwanted items to eliminate unwanted items either by disposing them or by relocating them.

SEITION ⇨ Stablize

To determine type of storage and layout that will ensure easy accessibility for everyone. It is creating place for everyone. It is creating place everything and putting everything in its place. The procedures to stabilize (SEITION) are:-

- Decide where things belong
- Decide how things put away
- Obey the put away rules

Use the following during stabilizing. Sign boards, Shadow boards, color codes, outline markings, labels.

SEISO ⇨ Shining (Cleaning)

Cleaning trash, filth, dust and other foreign matter and cleaning is a form of inspection keep work place spotlessly clean, inspection is while cleaning, finding minor problems with leaning inspection. Cleaning more than just keeping things clean

SEIKETSU ⇨ Standardization

is a review process that helps that group document agreements made during 5S activities and develop a standard operating procedure for all 5S activities. It helps to ensure that everyone uses the best practices and makes standards visible so that variations can be easily and immediately recognized. Regularizing 5S activities, so that abnormalities are revealed.

SHITSUK ⇨ Sustain

The above activities must continue as a habit by the group or particular business enterprise workers

Figure -1 Source: AATVETA, Kaizen Mannual,2013 page 31

2.7.2.3 The Seven Wastes

One of the KAIZEN services which is provided by TVETs in the industry extension service is giving training on the seven types of wastes. The main seven types of wastes are over production,excess inventory,waiting,transporting,defectmaking,unnecessary motion, and excess processing

2.7.2.4. Kaizen Board

This board is the main source of information regarding Kaizen and the actual status of improvement and activities leading to further improvement. It has four parts.

kAIZEN . Continuous improvement Board

STAFF NPERFORMANCE	**IMPROVEMENT/SUCCESS CORNER** **Picture of Well performing Employee** **100%**
PROBLEM/IDEA CORNER **Idea Problem** **Idea problem** **Idea Problem**	**SOLUTION CORNER** **Solution** **Solution** **Solution**

Figure 2. Taken from KAIZEN Manual from AATVETA, 2013

2.8 Overall Understanding of TVET

The main role players in the implementation of industry extension program are TVETs to support MSE operators. TVETs should be equipped with the necessary manpower, training facilities and financial capacities and managerial capabilities not to make the service provided to MSEs lame. Lack of the afro mentioned requirements will lead the implementation of IESP in question and trainers get a pretext not to be responsible.But it is better to bring discussion from the previous researchers its definition ,concept facility

access and historical development and current status quo of TVETs discussed by other researchers.

According to (UNISCO, 1984) in Eden Teklay ,(2012 :7), TVET is a comprehensive term referring to the Educational process, which involves in addition to general education, the study of technologies and related sciences and the acquisition of practical skills and knowledge relating to an occupation in various sectors of economic and social life. It is the major link connecting the school system and the employment market, which means that developments in TVET are intimately linked to general trends in the economy (UNESCO,1990) in (Eden,2012:7).

As cited by (Eden 2012:7), many Authors argue that,TVET bydesign is planned to build up skills that can be used in a specific occupation or job. These same authors argue that the objectives and content of its curricula is derived from analysis of the tasks that are to be carried out on the job. The effectiveness of these curricula can be measured by the extent to which trained persons can use their skills in employment.

Here the researcher of this problem on the definition of TVET. It provides a salable skill and enables the individual to prepare himself for the world of work. But also there are also trainees after they get the necessary skill in a particular field of work they can become self-employed open their own enterprise and even after their enterprise expansion they create employment opportunity for others. It is in this context that MSE operators can be benefited from the Service that is provided from TVETs.

2.8.1.. TVETs in Ethiopia

As it is written by (Yihune,2007:9), for many years before TVET was acknowledged by Ethiopian ministry of education in April 1994,the trades were not accepted by the Ethiopian society. Those group of people working trades in the society were called Shemane(KutitBetash), Anteregna,Ketekach,Faki(TinbGotach),Fuga or Buda(Shekal Seri), Asmari(Zefagn). As (Yihune, 2007) emphasized the names were given to insult those people. Those people were always fill inferiority and were demoralized. They were

even condemned in the society and were not allowed to have marriage relationship with the other group of the society the so called Chewa.

The above concept examines one that how it was difficult getting skilled in one trade was so much hard especialy during the time of Feudal socio economic formation. It is obvious why feudalists degrade those trades because their final destiny is forming factories and industries and the economic system is changed into a capitalist free market economy on the grave of Feudal economic system. They call themselves Chewa by degrading skills and knowledge of others. This created stagnation on the development of the industrial sector allowed Ethiopian economy fate only to depend on the agricultural sector and the development of TVET to be hampered. Accordingly Yihune (2007:9) stated that these entire conditions de motivated the people who had interest to be engaged in such vocations. Perhaps this could be the cause of the development of technical and vocational works became hampered.

In 1994, the TVET program acknowledge in its organized form by the will of the existing government aiming to create competent and self-reliant citizens that can contribute to the economic and social development of the country. Accordingly, a large number of boys and girls of the society in the country are now getting training streamed in each of the vocations (Yihune, 2007).

As cited by MoE, (2006: 7), in the TVET strategy of Ethiopia, in Ethiopia TVET has been fragmented and delivered by different providers at various qualification levels. Public TVET institutions under the education sector, concentrating on middle level technical training at post Grade 10 level, are complemented by the employer based in house TVET schemes of public and private companies. TVET schools run by (mainly church based).NGOs and an increasing number of private commercial TVET providers. Meanwhile in non- formal TVET programs, public institutions, NGOs and private schools offer employment –oriented training to various target groups, including school leavers, people in employment –oriented training to various target groups, including

school leavers, people in employment, school dropouts and marginalized groups in the labor market.

Even after a long period of stagnation of TVET , the expansion of the TVET system was fragmented and scattered and it was given in big towns in Comprehensive schools only and it was not targeted the whole segment of the society at that time . After 1994 with a new formation and organization of TVETs by the current government initially it was started with less capital intensive fields and graduallyEthiopian TVET Strategy was formulated in 2006/7 and the TVET system is changed from input based to Outcome Based and the Ethiopian TVET qualification framework was designed.

According to ESDP IV, (MoE, 2010/11:52), the main objective of the TVET is to train middle level human power and transfer demanded technologies and by doing so to contribute to poverty reduction and sustainable development.
It is suggested that under ESDP IV the reform of the system initiated under the TVET Strategy will be made operational, while a new emphasis will be laid on the enhancement of Quality. This will involve implementing an outcome based training system dedicated to promote trust and co-operation among stakeholders as well as strengthening the role of the TVET system in becoming an agent in technology acquisition, accumulation and transfer (MoE, 2010/11 :52).

With a view to creating a comprehensive, outcome based and flexible TVET system, the development of occupational standards, assessment tools, and certification based on labor market analysis benchmarking and stakeholder consultation will be continued, curriculum content will be designed and teaching materials prepared in line with occupational standards, assessment tools and certification requirements. In this respect, priority sectors will be emphasized in order to concentrate efforts and be better connected to market and increase relevance. It is also foreseen to provide support and enhance the capacity of centers of competencies (COCs).TVET program programs will be modularized and institutions equipped with ICT in order to make the TVET offer more flexible in its delivery in terms of entry and exit levels career guidance structures will be strengthened

so as to obtain a better match between TVET offer and labor market prospects(MoE,2010: 54).

2.8.2. Outcome Based Training

According to (Bezawork,2010:10), taken from WIKPEDIA,a free Encyclopedia **Outcome –based education** is a recurring education reform model. It is a student-centered learning philosophy that focuses on empirically measuring student performance which is called outcomes. outcome based education is a model of education that rejects the traditional focus on what the school provides to students in favor of making students demonstrate that they " know and are able to do" whatever the required outcomes are.

2.8.3. Competency Based Training and Assessment

Competence-based training is an approach to vocational education and training that places emphasis on what a person can do in the work place as a result of completing a program of training or based on work place experience and training. Moreover, the focuses on the skills required to competently complete tasks necessary to fulfill and employment role according to(Gasko,2004) in (Bezawork ,2010) elaborates competence-based programs are also used to increase employees' current job performance, prepare them for changing job requirements or introduce new tools or technology in the work place under this training approach, each learner is assessed to find the gap between the skills they need and the skill they already have (Bezawork,2012:10).

Therefore TVET trainers identify the skill Gaps of MSE operators and give training to fill the skill gaps and those MSE operators who are assessed to be certified in levels as well as in competencies. For MSEs being assessed has its own importance. On the one hand they become competent and certified in that occupation. On the other hand it helps to have the license and be able to compete for different types of auction and to involve in exhibitions and Bazars. For MSE operators Competency- Based training is given to MSE operators using the four intervention areas of IESP. After training they are assessed by assessors through recognized Center of Competence Centers and become certified in that particular area of work.

2.8.4. Linkages of TVETs and MSEs

According to government of Ethiopia, the pillar sectors to alleviate poverty in Ethiopia are TVET and MSE to solve economic and social problems of the society. The established TVET program will be part of Governments capacity building program. The program is undertaken in coordination with institutions engaged in Micro and Small enterprises to support and expand employment. Overall economic goals of the GTP is set with the overall policy objectives of maintaining the growth momentum witnessed during the period of the PASDEP and considering Ethiopia's long term vision of becoming middle income country and meeting the Millennium Development Goals(MDGs) at a minimum (MoFED ,2010:13).

TVETs reinforce the work of MSEs in order to get them successful and to develop their entrepreneurial motivation so that they can be transferred to small and large scale Enterprise. TVETs enable MSEstoproduce world market competitive products for export purpose and import substitution items. Regarding Technology Transfer and industry Extension Service, it is a package designed to support MSEs by TVETs. TVET institutions will provide the new service package which targets all the major headaches of MSEs in the Country. The services are **Technical Competence, Entrepreneurial Competency**, **Technology Capability**, **Quality and Productivity (AAATVET, 2012).**

2.9. Overview of MSEs

The role of MSEs for economic development is crucial even for developed countries as it is stated by different researchers and economists. MSEs are categorized in the informal sector and the role of the informal sector to the contribution of GDP in the case of our country and sharing the employment opportunity and encompassing the marginalized group of the society, women and the youth indicates MSEs role within a given country economy. GoE takes different economic measures to shape MSEs as a target to alleviate poverty. The MSE strategy of Ethiopia by MoTI,1997 is to strengthen the work of MSEs and Industry extension Service Program is designed to give a support |Service for them by TVETs so that by encompassing the poor, women, youth and marginalized groups of the society and University and TVET graduates, making them capacitated by providing

different infrastructures for the shades , Premises, Loan services from Micro finance institutions, getting skill and knowledge training access, business management skills, accounting training services, entrepreneurship training to take it as a culture are the support services designed by the industry extension program. MSEs also play as a mechanism for market stabilization and produce import substitution items as well as produce exported items when they reach Medium and large scale industry level which in turn helps for the growth of the industry sector. For entire role of MSEs for the economic development of the country and the benefit of the society at large the part of the industry Extension program has a paramount effect. Having all this role of M|SEs different researchers and writers discuss about this informal sector.

The launching of the world employment program by the ILO in 1969 redirected the primary objectives of development to be raising the standard of living of the poor through increased employment opportunities. In increasing the living standard of the poor, creating income generating and productive opportunities were considered a basic policy instrument.(Thorheche,200:13) in (MDUC, 2013:24). In any angle, there is no doubt that MSEs have already become major features of the economic landscape in most developing countries. As a result, researchers, practitioners and policy makers are increasingly interested in MSEs as incubators of labor intensive technologies and as source of jobs and incomes for the urban poor.(Thorbeche,2000,Eric Ronge,et al,2002) in(MUDC ,2013).

2.9.1. Definition of Micro and Small enterprises

Different researchers defined MSEs in different ways and according to the context of different countries with their laws within that particular country. For this research paper I took only the current definition of MSEs in our country.

An enterprise can be defined as:"Micro Enterprise" when the numbers of its employees (including the Owner or family) are not greater than 5 and total asset is less than or equal to 100,000 ETB for industrial sector less than or equal to 50,000 ETB for service sector. In a similar manner, an enterprise with 6_30 employees and total asset 100,001 _

1,500,000 ETB for industrial sector and 50,001 _ 500,000 ETB for service sector is defined as “Small Enterprise (MUDC, 2013:6).

2.9.2. Growth Oriented Micro Enterprises (MSEs)

MSEs engaged in production of goods and services in the sectors which are given priorities in the economic development of the country in most policy and strategy documents of the government (MoFED, GTP, 2010). The GTP indicates sectors like, construction, metal and wood workings, textile and garments, leather and footwear, agro processing, roads and other infrastructures as growth oriented sectors (MUDC,2013:6}.

GrowthStages of MSEs

MSEs grow from one stage to the other since their destiny is changing into Medium and Large Scale industry. In Ethiopia Micro enterprises have three growth stages and Small \Enterprises have four Growth Stages. Concerning Micro Enterprises they grow from Start-Up stage toGrowing stage from growing stage to gradusting stage. In case of Micro enterprises the growing hierarchy is from start-up to growing,from growing to Medium and from medium to graduating stage.

Theories on the growth of MSEs

Various theoretical models have been developed which describe the growth of small businesses one class of theoretical models focus on the learning processeither active or passive and the other models refer to the Stochastic and deterministic approaches. In the passive learning model, a firm enters a market without knowing its potential growth . Only after entery it learns. This firms model By continually updating such learning,the firm decides to expand,contract or to exit. The implication of this theoretical model is that smaller and younger firms should have higher and more viable growth rates. In the active learning model,a firm expresses its economic environment actively and invests to enhance its growth under comprehensive pressure from both within and outside the firm. According to this model of learning owners or managers could raise theier efficiency

through formal education and learning that eincreases their endowments (Goedhuys,2002) in (Chinnan&Kefale,2012 :8).

The other set of growth theories of firms include the 'stochastic' and deterministic approaches. The stochastic model which is also known as the Gibrat's law argues that all changes in size are due to chance. Thus the size and age of firms has no effect on the growth of small enterprises.The deterministic approach assumes on the contrary,that differences in the rate of growth across firms depend on a set of observable industry and firms specific characterstics (Pier,2002) in (Kefale and Chinnan,2002).

2.9.3. Technology and MSEsGrowth

Technological capability of MSEs is come into being through TVETs that select, accumulate and transfer these technologies to them. As Cited by (MUDC,2013:28), technological capability has a paramount importance to the growth of MSEs. Choice of technology and innovative capacity is another important factor determining growth of MSEs. According to KIPPARA discussion Number 51(2005) in (MUDC 2013:28), production technology has passed through three paradigms; technology development, appropriate technology and technological paradigm.

Technology development which is far less applicable to MSEs is the process of designing new machineries equipment's process/products. The appropriate technology paradigm assumes MSEs as beneficiaries and not as active participant of development and improvements of technology; technology as a resource that can only be adapted by MSEs for improving factor of productivity and reducing unit costs. It also focuses on incremental choice and suitability of available technologies to the production and market environment of MSEs operating environment of unskilled and large labor Market, low income consumer market, low quality inputs. But appropriate technology paradigm is challenged for its limited impact and its failure to narrow gaps between MSEs and larger enterprises.

The technical capability paradigm has emerged as a result of unsatisfactory result with appropriate technology paradigm and with the objective to raise capabilities of MSEs in

making use of innovated technologies as most innovated technologies which are adopted from separate workshops. It needs institutional, technical and engineering skills to adopt these technologies to different climate, raw materials and market demand.

According to (Albu, 2001:16)in(MoyiE and Njiraine.P,2005) in (MUDC ,2013), it is divided into production, investment, and innovated adaptive capability. Production capability is the static knowledge and skill required to identify, select and acquire new technologies or process while innovative/adaptive capabilities are knowledge and skills to initiate, replace and modify existing production process.

What is exactly discussed by Ministry of Urban Development and Construction (MUDC, 2013:28), is that by quoting different researchers discussions the main target of technologies for MSEs is to innovate/adaptive capabilities are knowledge and skill to initiate, replace and modify existing production process. Therefore, the main target of industry extension program in the technological competency intervention area is to copy and innovate/adaptive capabilities of the existing less productive technology and modifying them through TVET trainers and transferring to MSEs to increase their productivity and making them profitable in turn MSEs satisfy their customers.

2.9.4. Role of MSEs within the Economy, the Experience of different countries

Micro, small and medium-sized enterprises play a central role in the European economy. They are a major source of entrepreneurial skills, innovation and employment. In the enlarged European Union of 25 countries, some 23 million SMEs provide around 75 million jobs and represent 99% of all enterprises. (European Commission) For instance in Britain; SMEs are the backbone of the British economy (Rowe, 2008). According to the Department of Business, Enterprise & Regulatory Reform (BERR)'s and Enterprise Directorate Analytical Unit, in (Ruth, 2010: 1), the UK economy is 99% SMEs, employing 14.23million people, out of a working population of approximately 30 million. In terms of UK turnover and Gross Domestic Product (GDP), UK SMEs account for 1.48trillion sterling (British Pounds). SMEs (with at least 1employee) outperform the large UK Corporations in terms of productivity despite having minimal resources, little

support and being largely ignored. Large UK Corporations of 250employees and over account for 52% of employment but less only 50.8% of UK turnover. Thus the UK economy is supported by SME performance, and improving performance will have a substantially positive effect on the entire UK economy (Ruth, 2010:1).

Similarly, Small and medium-sized enterprises (SMEs) are the backbone of Singapore's economy, contributing 47% of the country's GDP and generating 62% of available jobs.(SMU,2008) in Ruth (2010 : 1),the promotion of SMEs and, especially, of those in the informal sector is viewed as a viable approach to sustainable development because it suits the resources in Africa. SMEs are the main source of employment in developed and developing countries alike, comprising over 90% of African business operations and contributing to over 50% of African employment and GDP. Okafor(2006).However many SMEs remain outside the formal banking sectors yet they play a key role in the economy of many countries.

In Kenya, they create employment at low levels of investment per job, lead to increased participation of indigenous people in the economy, use mainly local resources, promote the creation and use of local technologies, and provide skills training at a low cost to society ILO, (1989). Estimates are that there were about 900,000 small and micro enterprises establishments employing 2 million Kenyans and generating about 14 per cent of the country's GDP Dolman,(1994). It is also stated that in Kenya this sector accounted for 20% of the GDP in 1999 (CBS et al, 1999) and 64% of the urban employment by 2002 ,Karekezi and Majoro,(2002). According to the Economic Survey (2006), the sector contributed over 50 percent of new jobs created in the year 2005. In addition to its importance in creating jobs, the small enterprise sector contributes 33% of the value-added in manufacturing and the retail trade in Kenya ,(Onyango and Tomecko,1995).Despite their significance, past statistics indicate that three out of five businesses fail with in the first few months of operation ,(Kenya National Bureau of Statistics, 2007). However, it is generally recognized that SMEs face unique problems, which affect their growth(ILO, 1989) in (Ruth, 2010).

2.9.5. Lesson to be learned from the Experience of different countries.

As stated above the experience of different countries about contribution of informal sector to the GDPandjob opportunity creation is high. They are important sources of entrepreneurial skill, innovation and employment and the backbone of the economy in terms of their GDP contribution and creating employment opportunity. In Britain (Developed country) a large part of enterprises (99%) are small and Micro enterprise contributing a huge amount of sterling(1.8trillionsterling) and employing a large number of employees (49.2%). In Singapore, MSEs contribute 47% of GDP, 62% of available job. In Africa the informal sector viewed as a viable approach for sustainable development because it suits with resources.FromAfrica, in Kenya there are 900,000 small and Micro enterprises and in 1999, the informal sector contributes 20 % of GDP and 64% of urban employment. This indicates that the importance of MSEs for a particular country economic development is very important.

2.9.6. MSEs in Ethiopia

Since mid-1999, the government has revisited the whole issue of small and medium enterprise promotion in Ethiopia but with more focus on micro and small enterprises. A major study was conducted with the support of a donor agency which resulted in the preparation of a National Micro and Small Enterprises Development Promotion Strategy (NMSEDPS). The Ethiopian government released the country's first MSEs development strategy in November 1997 E.C. The primary objective of the national strategy framework is to create an enabling environment for MSEs. In addition to this basic objective of the national MSE strategy framework, the MoTI has developed a specific objective which includes, facilitating economic growth and bring about equitable development, creating long-term jobs, strengthening cooperation between MSEs, providing the basis for medium and large scale enterprises, promoting export, and balancing preferential treatment between MSEs and bigger enterprises (MoTI, 1997:8-27). The strategy outlines the policy framework and the institutional environment for promoting and fostering the development of MSEs and stimulating the entrepreneurial drive in the country(Admasu, 2012:19).

2.9.6.1. Opportunities for MSEs while Industry Extension Package is implemented

While implementation of a given program there are opportunities that create a favorable and good working atmosphere for the implementation of the program. These opportunities are preconditions that must be fulfilled while a policy is designed by policy makers. Some of these possible working conditions for MSEs support which are included in the MSE Strategy are creating and implementing an enabling legal framework which includes a law on institutional arrangement for MSEs, Inter linkage promotion law, Copporatives promotion law, chamber of Industry and trade proclamation, a micro and small enterprise finance proclamation are opportunities based on legal laws.

Other opportunities specified with in MSE strategy which created a good working atmosphere and improvement of their enterprises are Streamlining Regulatory conditions(Establishing User-friendly environment includes the simplification and standardization of documents,business registration and licensing,Financial and loan application,purchasing and subcontracting (tencder) document,export documentation and other commercial documents,export documentation ad other commercial documnts,registration of contracts with municipalities,Authentication of contracts at notary public,simplified tax declarations at notary public.

In addition to legal framework and establishing user- friendly environment other specific support areas/programs for MSEs which is mentioned in the strategy are facilitate access to finance, incentive schems,encouraging Partnerships- training in entrepreneurship,skills and management,access to appropriate technology,access to market,access to information and advice,access to physical structure,Institutional are opportunities which are mentioned in the MSE strategy.

2.9.6.1.3. Other Specific Support Areas/Programs

2.9.7. Main Challenges and Constraints of MSE Sector

In most developing countries, small businesses face a wider range of constraints and problems and they are unable to address the problems they face on their own, even in effectively functioning market economies. The constraints relate ,among others, to the legal and regulatory environments, access to markets, finance ,business information

,business premises(at affordable rent), the acquisition of skills and managerial expertise, access to appropriate technology, access to quality business infrastructure, and income cases, discriminatory regulatory practices (MoTI, 1997:3).

According to Commission on Legal Empowerment of the poor 2006 most MSEs in Ethiopia faced critical constraints both at the operation and start up level. Some of these constraints include lack of access to finance, access to premise, infrastructure, training in entrepreneurial and management skills, information on business opportunities, and social and cultural factors particularly related to deficient entrepreneurial culture and excessive competition (Weldegebriel, 2012:18).

According to 9Mead &Liedhholm ,1998:69) and (Swierczek and Ha ,2003 : 46-58) in (Admasu ,2012:24) the main factors that affect the performance of MSEs in developing countries is not their small size but their isolation which hinders access to markets ,as well as to information, finance and institutional support, lack of skill and experience. A study by (Hall ,1992:237-250) in(Admasu ,2012:40) has identified two primary causes of small business failure appear to be lack of appropriate management skills and inadequate capital (both at start up and on a continuing basis). The research undertaken in Tanzania by surveying 160 Microenterprises showed that high tax rates, corruption, and regulation in the form of licenses and permits, are found to be the most important constraints.

According to (Eshetu and Zeleke,2008:2-9) in (Admasu,2012) businesses failed, inadequatefinance, low level of education to convert part of their profit , poor managerial skills, shortage of technical skills, inability to convert part of their profit to investment , poor marketing skills, shortage of market information, poor quality of products, absence of marketing research, lack of working space, shortage of selling prices, absence of sub-contracting (FMSEDA,2006:34) in (Admasu ,2012).

According to(Dereje ,2008),(Workineh,2007) ,(Mulugeta, 2011) and (Asegedech, 2004:1) in (Admasu, 2012 : 28-29) the main constraints of MSEs were shortage of capital, lack of raw materials, absence of government support, lack of market, lack of credit facilities and high interest rate, unfavorable policy, inadequate infrastructure, absence of adequate and relevant training, bureaucratic and procedures are among

constraints faced by MSEs., lack of product diversity,lack of entrepreneurial and managerial skill, unfamiliarity of workers with rapid changing technology, lack of coordination of production process , inability of troubleshoot failures on machinery and or equipment's is a critical problem that MSEs are facing since they cannot afford to employ specialists in the fields of planning ,finance and administration,quality control and those with technical knowledge,poor market linkage and poor promotional efforts, institution related problems including bureaucracy society bottlenecks,weak institutional capacity,lack of awareness,failure to abide policies,regulations,rulesdirectives,absence of training to executives,and poor monitoring and follow-up , operator related shortcomings like developing a dependency tradition,extravagant and wasting behavior,and lack of vision and commitment from the side of the operators;MSE related challenges including lack of selling place,weak accounting and record keeping,lack of experience sharing,and lack of cooperation within and among the MSEs and finally society-related problems such as its distorted attitude about the operators themselves and their products.

In Kenya according to (Nyang'ori ,2010:21), SMEs face unique challenges which affect their growth and profitability and hence ,diminish their ability to contribute effectively to sustainable development include lack of managerial training and experience, inadequate educational skills, lack of credit, national policy and regulatory environment ,technological change, poor infrastructure and scanty market information.

2.10.Overview of Micro Finance Institutions

As cited by (Ruthford,1999), in (Alemayehu ,2008:15), the definition of Microfinance is the means by which poor people convert small sums of money into large lump sums.

Another definition from WIKPEDIA (the free encyclopedia), Microfinance is a form of financial service for entrepreneurs and small businesses lacking access to banking and related services. The two main mechanisms for the delivery of financial services to such clients are:-

Loans: Which allow a lump sum to be enjoyed now in exchange for a series of savings to be made in the future time if needed in exchange for a series of savings.

Savings:- Which allows a lump sum to be enjoyed in future exchange for a series of savings made now.

Insurance:

Which allows a lump sum to be received at some unspecified future time if needed in exchange for a series of savings made both now and in the future? Insurance also involves income pooling in order to spread risk between individuals on the assumption that not all those who contribute will necessarily receive the equivalent of their contribution.

Pension: This allows a lump sum to be enjoyed as a specified and generally distant date in future in exchange for a series of savings made now. According to Sinha(1998) in Alemayehu(2008:16), in the literature the terms micro credit and Microfinance are often used interchangeably but it is important to highlight the difference between them because both terms are often confused.

MFIs operate in a niche market as they address the needs of that market as they address the needs of those clients who are considered 'high risk' by bigger banks. High risk groups or individuals are characterized as those with very few assets, requiring very small loans, high degree of close follow-up, business engaged in activities whose income is fluctuating such as small-holder farmers or petty traders. Thus, the MFIs cater for a market with an operationally acceptable demand level and where clients can be protected from the unreasonable conditions of the informal money lenders. Such MFIs, however, charge high administrative costs and higher charges for risk coverage ,which is in addition to the market interest rates, and taking advantage of the niche market for micro loans (Sunita,2003)in (Ebisa et al,2013).

2.10.1 Nature of Ethiopian MFIs

The Ethiopian Microfinance Sector is characterized by its rapid growth, an aggressive drive to achieve scale, a broad geographic coverage, a dominance of government backed MFIs, an emphasis as rural households, the promotion of both credit and savings products, a strong focus on sustainability and by the fact that the sector is Ethiopian

owned and driven. The industry has a strong focus on loan to the very poor, as indicated by the relatively small loans when compared to the neighboring countries (Ebisa et al, 2013).The development of Microfinance institutions in Ethiopia is a recent phenomenon. The proclamation,which provides for the establishment of microfinance institutions,was issued in July 1996. Since then,various microfinance institutions have legally been registered and started delivering microfinance services (Wolday, 2000) in (Ebisa et al,2013).

Today there are 31 MFIS registered with the National Bank of Ethiopia serving clients. The Ethiopian Micro finance market is dominated by a few large MFIs, all of which are linked to regional state government

CHAPTER THREE
3. RESEARCH DESIGN AND METHDOLOGY

3.1. Research Design

The methodology of a research study emerges out of the nature of the problem and purpose of the study. Thus, a descriptive research design was selected to be used for this study. Since the purpose of this study was to obtain reliable and relevant information from various groups on the current practice and challenges of the issue under study. Descriptive method helps to have general understanding of the problem by studying the current status, nature of the prevailing conditions and trends through relevant and precise information. Hence, on the basis of this argument it was assumed that the problems were approached by using descriptive research design method.

A descriptive research design methodology was employed with an assumption that it could help to generate adequate information about the major challenges and opportunities of industry extension program while it was implemented. Thus this approach enables the researcher to examine the necessary constraints that need to be tackled by the stakeholders of IESP for smooth progress of Micro and Small Enterprises and to investigate the keep up opportunities.

3.2 Sources of Data

Both primary and secondary sources of data were used for this study. Primary source of data were obtained from TVET Trainers, Deans and Vice-Deans and, TVET Agency officials of the sample sub-cities, Micro and Small enterprise operators, MSE experts and Sub-city MSE Development officials and Micro Finance institution officials. Secondary data were obtained forms books, thesis papers and documents from the Ministry of education and TVET Agencies.

3.3. Population and Sample and Sampling Techniques.

Among the existing sub-cities in Addis Ababa in which technology transfer and Industry extension service is practiced, three sub –cities were selected out of 10 Sub-Citiesexisting in Addis Ababa using judgment sampling technique because of time and budget factor to

investigate practice, challenges and opportunities of Industry extension service program (IESP) while it has been implemented and the gained results on MSEs were studied in these sub-cities' using TVET colleges and MSE and Micro Finance Institutions. The sub-cities wereLideta, KolfeKeranio and Nifas Silk/Laftosub-cities pending that they represented the whole population of Addis Ababa Sub-cities in case of IESP implementation practice. TVET colleges were selected using availability and judjementalsampling technique within each Sub-cities.Out of the existing 367 trainers within sample polytechnic TVET colleges, 248 are directly involved in the implementation of industry extension program which are target population size of this study. The sample percentage given to each TVET polytechnic college was equal which30% is from Tegebared 13 trainers; from Nifas-Silk, 26 sample trainers,from General Wingete 24 sample trainers with a total sample size of 63 trainers were taken to fill questionnaires using random sampling. Out of these 52 trainers(82.5%) were filled and returned the questionnire

Table-1 Trainers Population and Sample

No.	Name of Polytechnic College	No of trainers within the College			No of trainers involved in IESP			Sample %	No. of Sample Trainers		
		M	F	T	M	F	T		M	F	T
1	TegbaredPolytechnic TVET College	144	16	160	16	25	41	30	5	8	13
2	Nifas Silk Polytechnic TVET College	95	33	128	95	33	128	30	18	8	26
3	GeneralWingetePolytechnic TVET College	63	16	79	63	16	79	30	18	6	24
	Total	302	65	367	174	74	248		41	22	63

Table-2. Sampling distribution of MSE and IESP Experts within Sub-cities and TVET Colleges

No	Sub- Cities and TVETs	Population of MSE Experts			Population of IESPPExperts in TVETS			Sample %	Sample Size		
		M	F	T	M	F	T		M	F	T
10.1	KolfeKeranioSubcity	5	1	6	-	-	-	50	2	1	3
	Nifas Silk /Lafto Sub-City	5	1	6	-	-	-	50	2	1	3
10.2	Lideta Sub-City	6	1	7	-	-	-	50	3	1	4
10.3	General Wingete Polytechnic TVET College IESP experts	-	-	-	3	-	3	50	2	-	2
104	Tegebared Polytechnic TVET College IESP Experts	-	-	-	2	-	2	50	1	-	1
10.5	Nifas Silk Polytechnic College IESP experts	-	-	-	4	-	4	50	2	-	2
	Total	16	3	19	9	-	9	-	12	3	15

Within theSample Sub-Cities there areMSE experts who support Micro and small enterprise operators and contribute their part for the implementation of industry extension program at Sub-City and Woreda level and within TVETs there are also Industry extension Service experts. Table 2 depicts that population and Sample distribution of experts within sample Sub-Cities and Polytechnic TVET colleges. From a total number of 28 IESP and MSE experts 15 experts were taken using purpose and availability sampling technique and questionnaires were distributed to 15 expert respondents, 12(80%) weremale and 3(20%) were Female. And 100% of questionnaires were filled and returned.

Table- 3. Sample distribution of MSE operator's Respondents

No	Sub Cities	No of Woredas with in the Sub-City	Sample Woredas	Sample%	No of enterprises who have got IESP	Sample % of enterprses	No of Sample Enterprises
1	Lideta	10	2	30	201	10	20
2	Nifas Silk Lafto	12	3	16	360	11.1	40
3	KolfeKeranio	15	3	20	400	10	40
	Total	37	8	21.6	961	10.4	100

As shown in table-3 above,within three sample sub cities Lideta,Nifas-Silk/Lafto and KolfeKeranio there are 10,12 and 15 Woredas respectively which make a total of 37 Woredas. Out of this using quota Sampling, from Lideta,2 Woredas, from Nifas-Silk/Laftoand KolfeKeranio, 3 from each Woredas were taken as a sample which make a total of 8 woredas (21.6%) of all 37 Woredas were taken as sample size of Woredas. Within these 8 sample Woredas, 100 MSE enterprises were taken using stratified Sampling method categorizing enterprises by sector which were Construction, Manufacturing, Services, Trade and agriculture. Out of this 100 enterprises were taken as a sample and 100 questionnaires were distributed and 79(79 %) were filled and returned.

Table 4.Summary of MSE Operators population and Samples Taken.

Sectors	Population/Strata	Sample
Construction	103	10
Manufacturing	49	5
Services	26	3
Trade	15	1
Urban Agriculture	8	1
Total	203	20
Construction	154	18
Manufacturing	44	4
Services	65	7
Trade	80	9
Urban Agriculture	17	2
Total	360	40
Construction	119	11
Manufacturing	95	10
Services	59	6
Trade	47	5
Urban Agriculture	80	8
Total	400	40

Lideta,KolfeKeranio and Nifas Silk/LaftoSub-Cities MSE Development Office heads and Core process owners,TVET office heads and their Vices andTegebared,GeneralWingete and Nifas-Silk poletechnic TVET colleges deans and Vice deans; Addis Microfinance manager were purposely taken and interviewed untructured interview since the researcher believes that they know the condition better than other stakeholders of IESP.

3.4. Sampling Techniques

Out of the existing ten Sub-Cities in Addis Ababa Administration,three Sub-cities were selected using non-probability Conventional Sampling technique because of time constraint and budget factor.

The sample sub-cities wereKolfeKeranio, Lideta and Nifassilk /Lafto.Within these Sample Sub-Cities, Sample TVETs were higher 20 TVET Institution, General Wingate Polytechnic TVET college, TegbaredPolytechnic TVET college and Nifas Silk PolytechnicTVETcollege were selected using purposive Sampling. Sample trainers were

taken using probability simple random sampling technique and filled the questionnaire. Higher 20 TVET institution was used for pilot study of the research

.Concerning MSE operators with in sample sub-cities, in Lideta sub city there are 10 Woredas 2 woredas were taken as a sample using availability of MSEs from each economic development target sectors ;in KolfeKeranio there are 15 woredas and out of these 3 woredas were taken as a sample and in Nifas-Silk Lafto there are 12 woredas and out of these 3 woredas were taken as a sample.using random sampling technique , stratified sampling method was employed by the type of sector the enterprise is engaged in and activities they carried out and then samples were taken to fill the questionnaire In case of MSE and IESP experts a non-probability availability Sampling technique was used and filled the questionnaire . Moreover, the TVET and MSE officials, Deans, Vice Deans of Sub-City TVET officials and Vice-officials, and Micro Finance Manager were selected using purposive sampling method for interview.

3.5. Data Collection Instruments and Procedures

3.5.1 Instruments of Data Collection

Both primary as well as secondary data were used for this research. The secondary data include information that are obtained from books,differentreports,Thesispapers,Websites and Mannuals and Buletins,which are relevant to the theme of the study . were gathered from various sources to complement the descriptive based analysis.The primary sources of data were quewtionnaires distributed to trainers,experts and MSE operators and interviews conducted with MSE Development office heads,sub-city TVET office heads ,Deans and Vice deans and Microfinance leaders. In order to answer the basic questions raised,a 26 item questionnaire that has six parts which consists demographic profile of trainer respondent which is designed in a close ended format,the second part covers issues related with implementation of industry extension program with one open ended item , the rest closed ended and lickert scale format. The lickert scale ranges from “Strongly Agree = 4, “ Agree” = 3, “disagree “ = 2 , “Strongly disagree” = 1) see “ Appendix I “ so as not to limit the response of respondents; part four covers issues related with involvement of stake holders which contains closed ended items ;part five contains

motivational factors of MSE operators after support of IESP, which contains a lickert scale format and part six lastly contains closed and open ended formats.

Pertainning expert respondents' questionnaire it is a 16 item questionnaire and it has four parts. Part one covers demographic profile of expert respondents, part two contains issues in relation to implementation of industry extension program and it is a closed ended format and part three covers challenges of IESP while it is implemented and the questionnaire is an open ended format and part four covers opportunities of IESP it is an open ended format.

Concerning MSE operators respondent questionnaire it has 26 items questionnaire and it has two parts. Part one covered demographic profile of respondents with closed ended format and part two covers implementation of IESP,Stakeholdersinvolvement,challenges and opportunities of IESP with closed ended,open ended and lickert scale formats. Vices11 interview question items were prepared and interviewed within their offices for Regarding interview for MSE Development office heads and core process owners and for Sub-City TVET office heads and their three office heads one from each sub-city and for three core process owners three from each sub-city For Deans and their Vices again 11 interview items were prepared and interviewed within their office using structured interview method and their response was written in my note book. For Addis micro finance manager 5 interview questions items were raised and answered in his officeand answers were recorded.There was no that much challenge during the time of interview except managers and cor process owners busyness.

3.5.2. Procedures of data collection

From the total 10 Sub-Cities in Addis Ababa, three Sub- Cities were selected for this study using purposive sampling technique namely KolfeKeranio, Lideta and Nifas Silk/Lafto Sub-Cities considering budget and time constraints of the researcher as they are supposed they represent the whole sub-Cities of Addis Ababa City Administration in case of the challenges and opportunities of industry extension program while it is implemented. Colleges, Nifas Silk TVET Polytechnic College.General WingeteTVET Poly Technic College and Tegebared TVET Polytechnic College and one institution for

pilot test of the study which was Higher 20 TVET institution were selected. From the selected TVET to identify the sample TVET institutions and colleges, MSE operators, TVET and MSE experts, officials, Deans, vice-deans, agency managers, and three individuals were employed to get questionnaires filled by Trainers,experts and MSE operators. These three individuals were employed, considering their proximity to the sub-Cities and time availability. A brief description was given to employed workers how they handle the respondents and about the parts of the questionnaires and their respective duties in the data collection process. Each of the collectors was assigned to administer the data within the placed sub-city.

After a short visit to each sub-city, pilot test was made on questionnaires within Higher 20 TVET institution. Some questionnaire items were re-stated for example on a questionnaire which was prepared for trainers on part two question number 15 was re-stated because it created confusion on the respondents and on a questionnaire designed for MSE and IESP experts the instruction for question no 11 was re-stated since it created confusion. Adjustment was made onopen ended item of question no 13 of MSE and IESP experts questionnaire because it was asked as the opportunity of IESP to their point of view but the intention of the researcher was to the angle of MSE operators.There were some grammatical errors while the questuesions were asked to that of the questionnaires of MSE operators' questionnaires and they were corrected after the pilot test. In case of interview, it was carried out by the researcher to Deans, vice-deans, work process owners, managers and officials, experts, based on theirhierarchical position. The physical set up of TVETS, MSEs previous work photos, videos were observed by preparing observation check list. The pilot test for MSE operators questionnaire was carried out in KolfeKeranioWoreda 3 there was an error on the questions sequence and it was corrected and error was made on open ended question no 24 and it was corrected.

3.5.3. Methods of Data Analysis

The data obtained through questionnaires were analyzed quantitatively and qualitatively and quantitative statistical methods such as measure of central tendencies like, Mean, median, mode were figured out. Percentage was the main instrument for data analysis of

this research used to analyze the collected data quantitatively. Lickert skirt questions were figured out using statiscal description of mean and rank the four scaling methods were used to measure the responses. The data obtained using open-ended items in the questionnaires, interviews and observation were analyzed qualitatively, which were useful to strengthen the analyzed result that was obtained through statistical analysis .Finally, after the data were analyzed by explaining appropriate statistical methods, findings were summarized, concluded and recommendations were made.

CHAPTER FOUR

4. PRESENTATION, ANALYSIS AND INTERPRETATION OF THE DATA

This part of the study deals with the presentation, analysis and interpretation of the data collected from the sample trainers, MSE Operators, MSE experts, Deans, Vice Deans, Sub-City TVET agencies, Sub- Cities MSE Development Offices. The relevant data and information collected through questionnaires, document analysis, and interviews were analyzed and interpreted in view of the basic questions raised in chapter one.

Accordingly, out of 63 questionnaires distributed to trainers 52(82.5%) were filled and returned. In addition out of 18 questionnaires distributed to MSE experts 15(83.3%) were returned and out of 100 questionnaires distributed to MSE operators in sample Woredas of each sub-City 79 (79%) were filled and returned. Based on the responses obtained from the sample respondents, the analysis and interpretation of the data with their information is presented as follows.

4.1. Analyses of personal Information, Educational background and work Experience of sample TVET trainers, MSE ExpertsandMSE Operators

Table 5- Trainers Sex, Age, Qualification andWork Experience

No.	Items	Name of Sub Cities f=52							
		General Wingete Polytechnic College		Nifas-Silk Polytechnic College		Tegebared Polytechnic College		Total	
		No.	%	No.	%	No.	%	No.	%
1	**Sex**								
	Male	16	72.7	5	41.7	12	66.7	33	63.5
	Female	6	27.3	7	58.3	6	33.3	19	36.5
	Total	22	100	12	100	18	100	52	100
2	**Age**								
	20 and below 20	-	-	-	-	-	-		
	21-30	15	68.2	9	50	7	58.3	31	59.6
	31-40	2	9.1	4	22.2	2	16.7	8	15.4
	Above 41	5	22.7	5	27.8	3	25	13	25
	Total	22	100	18	100	12	100	52	100
3	**Academic Status**								
	10+3	1	4.5	1	5.6	1	8.3	3	5.8
	College Diploma	2	9.1	2	11.1	1	8.3	5	9.6
	Level III-V	10	45.5	7	38.8	4	33.3	21	40.4
	First Degree	8	36.4	6	33.4	4	33.3	18	34.6
	MA/MSC and above	1	4.5	2	11.1	2	16.8	5	9.6
	Total	22	100	18	100	12	100	52	100
4	**Work Experience**								
	Below 1 year	1	4.5	-	-	-	-	1	1.9
	1-5 years	10	45.5	8	44.4	7	58.3	25	48.1
	6-10 years	7	31.8	4	22.3	1	8.3	12	23.1
	11-15 years	-	-	-	-	2	16.7	2	3.8
	16-20 years	2	9.1	-	-	-	-	2	3.8
	Above 20 years	2	9.1	6	33.3	2	16.7	10	19.3
	Total	22	100	18	100	12	100	52	100

The above table summarizes the demographic profile of respondents by sex, age.qualification and work experience

As depicted in table 5, out of the total number of sample trainers' respondents who filled and returned the questionnaire, 33(63.5%) were Male and 19(36.5%) were female from the three sample polytechnic colleges. The importance of gender distribution for this research problem showsthe involvement of gender balance within the implementation of industry extension program. Though a large number of trainer respondents weremale,a considerable number of them were female. Regarding gender distribution of trainer respondents in each sample polytechnic college one can refer table -5

Concerning trainers' respondentage,GeneralWinget Polytechnic TVET college 15(68.2) were between the age of 21-30 and 5(22.7%) were above the age of 41 and only 2(9.1%) were from the age of 31-40; from Tegbared Polytechnic TVET college, 7(58.3%) were between 21 and 30 ages and 3(25%) were above 41 age and 2(16.7%) werebetween the age of 31-40 and Nifa-silk Polytechnic TVET College ; half of the respondents,9(50%) were between the age of 21 and 30 and 5(27.8%) were above the age of 41 and 4(22.2%) were between the age of 31-40.

Generally 31(59.6),of trainers respondents were found between the age of 21 and 30 and 13(25%) of the respondents were found above the age of 41 and 8(15.4) of trainer respondents found in the middle age of 31 and 40.

The above analysis shows that more than a half of trainers' respondents were found within young age range and one-fourth of the respondents were within adult age group.

Educational qualification matters to assign the right person at the right place and manpower especially training when it is supported by the necessary well educated and competent trainer the one who is going to be trained will fit in the work place and armed with necessary skill knowledge and attitude and as a criteria all trainers what ever they may be in different levels of academic status has to take an assessment to become trainer in their occupation and all trainers when they assigned as trainers they are competent and certified and took trainers methodology course.

From the above analysis one recognizes that 21(40.4%) of trainer's respondents have academic status of Level III-V;a considerable figure of the respondents 18(34.6 %) have first degree; 5(9.6%) have second degree and 8(15.4%) have either college diploma or 10+3. This implies that the sample trainer's data occupies almost all type of academic status.

Overall from the three polytechnic TVET colleges 21(40.4%) of trainer respondents hadacademic status from Level III-V, 18(34.6%) of trainer respondents had first degree and 5(9.6%) of them had MA/MSC and only 8(15.4%) had either in 10+3 or college diploma academic status.

Regarding work experience of the respondents, 25(48.1%) of trainers respondents work experience was 1-5 years,12(23.1%) of trainers respondents hadwork experience from 6-10 years,2(3.8%) of the respondents had 11-15 years' work experience,3(5.8%) had 16-20 years' work experience,10(19.2%) had work experience of 20 years and above.

To draw a conclusion from above analysis of trainers respondents work experience 25(48.1%) of trainers have work experience from 1-5 years and when we see from the experienced work force point of view almost half of trainer's respondents 27(51.9%) have work experience from 6 years up to 20 years and abov

Table -6 MSE expert Respondents' Sex, Age, Qualification and Work Experience.

No.	Items	Name of Sub Cities							
		KolfeKeranio		Nifas-Silk /Lafto		Lideta		Total	
		No.	%	No.	%	No..	%	No	%
1	**Sex**								
	Male	4	80	4	80	4	80	12	80
	Female	1	20	1	20	1	20	3	20
	Total	5	100	5	100	100	100	15	100
2	**Age**								
	20 and below 20	-	-	-	-	-	-		
	21-30	5	100	3	60	2	40	12	80
	31-40	-	-	-	40	3	60	3	20
	Above 41	-	-	-	-	-	-		
	Total	5	100	5	100	5	100	15	100
3	**Academic Status**								
	10+1-10+3	-	-	-	-	-	-	-	-
	Level III/IV	-	--	-	-	-	-	-	-
	Level V	-	-	-	-	-	-	-	-
	First Degree	5	100	5	100	5	100	15	100
	MA/MSC and above	-	-	-	-	-	-	-	-
	Total	5	100	5	100	5	100	15	100
4	**Work Experience**								
	Less than 1 year	-	-	-	-	-	-		
	1-5 years	4	80	3	60	2	40	9	60
	6-10 years	1	20	2	40	3	60	6	40
	11-15 years	-	-	-	-	-	-	-	-
	16-20 years	-	-	-	-	-	-	-	-
	Above 20 years	-	-	-	-	-	-	-	-
	Total	5	100	5	100	5	100	15	100

From each sub-City, 4(80%) male and 1(20%) female experts have been taken and concerning expert respondents 12(80%) were male and 3(20%) were female.

Pertaining their age all 5(100%) of MSE experts' respondent of KolfeKeranio Sub-City were from 21-30 age interval;Lideta Sub-City3(60%) of themwere from the age of 21-30

and 2(40%) were in the age interval of 31-40;Nifas Silk/Lafto Sub-City 4(80%) were in the age range of 21-30 and only 1(20%) was in the age range of 31-40.

To sum up the analysis regarding their age range of MSE experts' respondents,12(80%) were between the age interval of 21-30 age and the rest 3(20%) were between the age interval of 21-30 . This indicates that most of MSE and IESP expert's respondents are youngsters

Concerning their Academic status of MSE experts' respondent, all 15(100%) had first degree. This means Industry Extension program experts had good academic background..

T|o have a total overview of MSE and IESP expert respondents work experience 9(60%) have 1-5 years' work experience and 6(40%) have 6-10years' work experience. More than half of MSE experts' respondents have 1-5 years' work experience.

Table -7 .MSE operators' respondents Sex, Age, Qualification and Work Experience

No.	Items	Name of Sub Cities					
		KolfeKeranio		Nifas-Silk /Lafto		Lideta	
		No.	%	No.	%	No.	%
1	**Sex**						
	Male	25	78.1	25	89	11	57.9
	Female	7	21.9	3	11	8	42.1
	Total	32	100	28	100	19	100
2	**Age**						
	20 and below 20						
	21-30	13	40.6	15	54	4	21.1
	31-40	14	43.75	10	36	12	63.2
	Above 41	5	15.65	3	11	3	15.7
	Total	32	100	28	100	19	100
3	**Academic Status**						
	10+1-10+3	8	25	5	18	1	5.3
	College Diploma	7	21.9	9	32	3	15.8
	BelowGrade 10	2	6.3	6	21	5	26.3
	Grade 10-12	12	37.5	8	29	10	52.6
	Level I-Level V	-	-	-	-	-	-
	First Degree	3	9.3	-	-	-	-
	Total	32	100	28	100	19	100

Regarding gender distribution of MSE operators' respondent 61(77.2%) of respondents were Male and 18(22.8%) were female respondents. Hence, majority of the MSE operators' respondents (77.8%) were Male.

Pertaining age of MSE Operators' respondents in KolfeKeranio Sub-City, 13(40.6%) were between the age of 21-30,14(43.75 %) were between the age of 31-40,5(15.7 %) were above the age of 41;Lideta Sub-City MSE operators respondents,4(21.1%) were between the age of 21-30,12(63.2%) were between the age of 31-40 and the rest 5(15.7%) are above the age of 41;Nifas Silk Lafto Sub-City,15(53.6%) of MSE Operators' respondents were between the age of 31-40 and only 3(107%) of the respondents were above the age of 41.

Pertaining MSE operators' respondent age distribution 32(40.5%) were between the age of 21-30,36(45.6%) were between the age of 31-40 and 11(13.9%) of them were above the age of 41.

From the point of MSE operators educational status within the three sample sub-Cities,10+1-10+3,14(17.7%),college diploma,19(24.1%),below grade 10 ,13(16.5%), grade 10-12, 30(37.9 %),first degree,3(3.8 %) were their academic status.

Hence, as revealed in the data analysis from table 6 , below grade 10 only 5(26.5 %) exists from sample MSE Operators' respondent and the rest were in the academic status of 10+1-10+3,college diploma grade 10 and 12 complete and few of them have first degree. Majority of the MSE operators' respondents 30(37.9%) are grade 10 and grade 12 complete.

Table -8. Micro and Small Enterprises from Start –Up Stage to Maturity Stage

No	*Name of Sub-Cities*	MSEs' Stages											
		Start-Ups	Growth		Matured		Start-ups	Growth		Medium		Matured	
1	*KolfeKeranio Sub-City*		No	%	No	%		No	%	No	%	No	%
	Year- 2011-2012	2173	217	10	22	10,1	112	42	37.5	22	52	18	81.8
	Year- 2013	435	7	1.6	-	-	10	6	60	1	17	-	-
	Year- 2014	366	2	0.5	-	-	12	10	83.3	2	20	-	-
	Total	**2974**	**226**	**7.6**	**22**	**9.7**	**132**	**60**	**46**	**25**	**42**	**18**	**72**
2	Nifas Silk Lafto												
	Year- 2012	820	106	12.9	15	14.2	98	42	42.9	23	55	8	34.8
	Year- 2013	157	23	14.6	8	34.8	98	31	31.6	31	100	-	-
	Total	**977**	**129**	**13.2**	**23**	**17.8**	**196**	**73**	**37**	**54**	**74**	**8**	**15**
3	LidetaSub_City												
	Year- 2012	563	62	11	7	11.3	96	29	30.2	-	-	-	-
	Year- 2013	121	4	3.3	-	-	12	10	83.3	1	10	1	100
	Total	**684**	**66**	**9.6**	**7**	**10.6**	**108**	**39**	**36**	**1**	**2.6**	**1**	**100**

MSEs have their own goal and destination after they are established. They have criteria's to be grown from one stage to another and one of the criteria to grow from one stage to another is getting and using the industry extension support service effectively. Micro Enterprises have three stages; start-up, growth and maturity stages. Small enterprises in turn have four stages; start-up, growth, Medium and maturity stages. Hence, table-7 shows the number of MSES at each growthstage level of sample sub-cities. Within KolfeKeranio Sub-city out of the total 2974 Micro start-ups from 2011-2014 only 226(7.6) went.

Growing stage and out of these 226 growing Micro enterprises 22(9.7%) were graduated. Pertaining Small enterprises within KolfeKeranio subcity,0ut of 132 start-ups,60(45.5%) went to growing stage and out of these 60 growing Small enterprises 25(41.7%) went to Medium Stage and out of these 25 medium stage enterprises,18(72%) graduated and changed into Small and medium enterprise level.

Concerning Nifas-Silk/LaftoSub-City , from year 2012-2013,out of 977 start-up Micro enterprises 129(13.2 %) grown to growing stage and out of these 129 growing Micro enterprises 23(17.8%) were graduated . Regarding small enterprises out of 196 start-ups 73(37.2%) went to growing stages and from growing stage the small enterprises went to medium growth stage were 54 (74%). Out of these 54 Medium stage small enterprises 8(14.8%) jump to graduated stage.

Regarding Lideta Sub-city, from 2012-2013,from the existing 684 Micro enterprises only 66(9.6%) grown to growing stage and out of these growing stage micro enterprises,7(10.6%) have been graduated. Pertaining to Small enterprises in Lideta Sub-City, out of start-up 108 enterprises,39(36.1%) grown to growing stage and out of these 39 only 1(2.6 %) grown to medium stage and these medium stage enterprise grown to graduating stage 1(100%).

Therefore,from the growing stages point of view of Micro and small enterprises in sample sub-cities, it can be safely inferred that concerning Micro enterprises growth from one stage to another in three sample sub-cities as one recognizes from the analysis it is too low. But pertaining to Small Enterprises growth from one stage to the next

,somehowbetter than Micro enterprises. One of the preconditions for MSEs growth is getting and using industry extension service effectively.

Table -9- No of Micro and Small Enterprises with in Sub-Cities and Enterprises which has got IESP

No	Sub-Cities	Sector	No of Enterprises in 2014	No of enterprises who get industry extension service	%
1	Lideta	Construction	465	201	22.2
		Manufacturing	218		
		Services	119		
		Trade	68		
		Urban Agriculture	36		
		Total	906		
2	Kolfekeranio	Construction	953	360	16.2
		Manufacturing	273		
		Urban Agriculture	102		
		Trade	492		
		Services	402		
		Total	2222		
3	Nifas-Silk Lafto	Construction	349	400	34.1
		Manufacturing	278		
		Service	173		
		Urban Agriculture	137		
		Trade	236		
		Total	1173		

As it is presented in table 8, each sub-City has its own number of Micro and small enterprises. Within each sub city there are five sectors. As data gathered from sample Sub-Cities MSE Development offices,Lideta sub city by now has 906 MSEs and out of this only 201 (22.2%) has got the industry extension service and in KolfeKeranio Sub-City with in 15 Woredasthere are 2222 MSEs and out of this only 360 (16.2 %) of them has got the industry extension service support in Nifas Silk Sub-City there are

1173MSEs and 400(34.1%) has got support service. Though industry extension service is on its infant stage, IESP coverage is too low particularly in KolfeKeranioand Lideta Sub-Cities.

4.2. Industry Extension Service implementation

Table-10 Availability of trainers and training facilities, training access of trainers, and Checkingsustainability of KAIZEN after the support of MSE operators pertaining to trainers' respondents

No	*Items*	Responses	
		No	%
1	Is there shortage of trainer's availability in your area of training?		
	Yes	38	73.1
	No	14	26.9
	Total	52	100
2	Have you got enough training about industry extension program in relation to awareness creation, strategies and intervention mechanisms while you are providing training to MSE operators?		
	Yes	35	70
	No	15	30
	Total	50	100
3	Do you think availability of training facilities is enough while you are conducting Industry extension support service to micro enterprise operators inside or outside your TVET college or institution?		
	Yes	19	36.5
	No	33	63.5
	Total	52	100
4	Do you check the practicality and sustainability of KAIZEN implementation after you give training for micro Enterprise operators within a specified time interval?		
	Yes	33	68.8
	No	15	31.2
	Total	48	100

Achievement of educational goals can be practical if and only if the necessary manpower,availability of training materials and armed manpower with the necessary knowledge, skills and attitudes is available. If trainers get the necessary training facilities, awareness about implementation systems and techniques of intervention areas of IESP, they become successful on the implementation of the program. Training starts from awareness creation and then enabling the trainers to have the necessary skill in their field of training.At the same time the necessary training facilities has a paramount impact on the quality of training. The implementation of the program has to have a feedback and the support has to sustain and the final implementers has to make a sustainable implementation after support.

In case of shortage of trainers in their field, 38(73.1 %) of trainers' respondent replied that there is shortage of trainers in their areaof occupation and 14(26.9 %) of them responded that there is no shortage of trainers in their area of occupation.

Pertaining availability of training in IESP for trainers, majority 35(70%) of trainers' respondents replied that they have got training on IESP in relation to awareness creation, MSE strategies and intervention areas. However,15(30 %) of trainers' respondents responded that they did not got training. Therefore for fruitfulness of the implementation of IESP , they need to get the necessary training. 2(3.8 %) of the respondents did not give response.

As it is depicted on table 10, whether trainers have follow-up on MSE operators after support of on the practicality and sustainability of KAIZEN implementation 33(68.8%) of the respondents replied that they follow-up after support on KAIZEN implementation and based on the feedback they give another training

To sum up many of the trainers' respondents 38(73.1) replied that as there was shortage of trainers in theirarea of training. Regarding shortage of trainer's deans and Vice –Deans interviewees also approve shortage of trainers. Pertaining to the support training given to trainer's, majority of trainers 35(70%) get training on how to implement IESP. Regarding trainers follow-up after support whether the training given to MSE operators is sustainable or not by far more than half of respondents 33(68.8%) responded

as they carried out follow-up after support in case of KAIZEN and other intervention areas implementation.

Table–11.Willingness of trainers, objective clearness, punctuality of MSE operators, Sustainability of 5S while IESP is implemented

No	Items	Very high		High		Moderate		Low		Very low		Total	
		No	%	No	%	No	%	No	%	No	%	No	%
1	To what extent are trainers willing to conduct industry extension program out of their TVET colleges/Institutions according to your observation?	5	9.6	10	19	22	42.4	14	27	1	1.9	52	100
2	To what extent are objectives of industry extension program clear for You?	14	28	7	13	21	41.2	9	18	0	0	51	100
3	nt are Micro enterprise rs Punctual While they raining?	3	5.8	15	29	21	40.4	10	19	3	5.8	52	100

For any program to be implemented, commitment of implementers is a decisive factor for effectiveness of that program. Therefore, clarifying the objective of the program and its importance brings a fruitful feedback after implementation.

As Table 11 above depicts 22 (42.4%)of trainers' respondents responded that the willingness of trainers to implement the industry extension program is medium and 14(26.9%) replied that their willingness is low .

In case of objective clearness of IESP to trainers' respondents 21(41.2%) replied that the clearness of the objectives is medium or moderate and, 14(27.5%) of them revealed that it

is very clear to them and 7(13%) of them replied thatthe clearness of the objective is high.

Regarding the extent of MSE operators' punctuality while training is given 21(40.4%) of the trainers respondents replied that their punctuality is medium and 15(28.8%) replied that their punctuality is high and 10(19.2%) of trainers respondents revealed that the punctuality of MSE operators is low while training is conducted.

Regarding practicality and sustainability of 5S' by MSE operators,trainers' respondents replied that practicality and sustainability is medium after support and 13(25%) of them replied it is high and 10(19.2%) of them responded that it is very high. Only 4(7.6%) of them said the practicality and sustainability of 5S is low.

To sum up, trainers willingness to implement industry extension program is moderate as most of trainers'response revealed. However, a considerable number of trainers' respondents replied that their willingness is low 14(26.9 %). Regarding clearness of objectives, though majority of them replied that the clearness is medium, 14(27.5%) and 7(13%) of the respondents which make a sum of 21(40.4%) shows the clearness of the objective is high. Regarding punctuality of MSE operators while training is conducted,21 (40.4 %) of the respondents replied that their punctuality is medium and 15(28.8%) responded that their punctuality is high, 10(19.2%) and 3(5.8) which makes a total sum of 13(25%) replied that they are not punctual.

Table -12 . Implementation of four intervention areas of industry Extension Service

No	Item	Trainers Respondents f =52		MSE expert Respondents f =15		MSE Operator Respondents f =79		Total	
		No	%	No	%	No	%	No	%
1	Among the following intervention areas of industry extension Program which one is/are more implemented according to your opinion?								
1.1	Technical Skill Competency	23	44.2	4	27	19	24.1	46	31.5
1.2	Entrepreneurial Competency	12	23.1	0	0	16	20.3	28	19.2
1.3	Technological Competency	2	3.8	0	0	6	7.60	8	5.50
1.4	Quality and Productivity Competency	4	7.7	4	27	30	37.9	38	260
1.5	All have been implemented	11	21.2	7	47	8	10.1	26	17.8
	Total	52	100	15	100	79	100	146	100

As Trainer,MSE expert and MSE operators respondents replied that in case of implementation of four intervention areas 46(31.5%) from the whole three types of respondents responded that more is worked on technical skill competency intervention area and the next more implemented area according 38 (26 %) of respondents is on product quality and productivity competency and 28(19.2 %) of the whole three type subjects of respondents replied that more attention is given to entrepreneurship and only 26(17.8 %) of 146 respondents replied that as the whole intervention areas are practiced.

4.3. Issues related to Challenges of industry extension Service implementation

Table-13a - Challenges that are faced by Trainers, while ISEP has beenimplemented

No	*Items*	Respondents					
		f =52 Trainers		f =15 Eperts		f =67 Total	
		No	%	No	%	No	%
1	Is there resistance from micro and small enterprise operators in relation with implementation of industry extension program?						
	Yes	41	78.8	12	80	53	79.1
	No	11	21.2	3	20	14	20.9
	Total	52	100	15	100	67	100
2	Do you observe lack of awareness about industry extension program while training was delivered to MSE operators?						
	Yes	45	86.5	13	87	58	86.6
	No	7	13.5	2	13	9	13.4
	Total	52	100	15	100	67	100
3	Is there shortage of resources for training						
	Yes	24	46.2	6	40	30	44.8
	No	28	53.8	9	60	37	55.2
	Total	52	100	15	100	67	100
4	Do you face transportation problem when you go out for training and field work to implement the industry extension program						
	Yes	28	56	10	67	38	58.5
	No	22	44	5	33	27	41.5
	Total	50	100	15	100	65	100

As it is depicted from table 13a according to trainers' respondents and MSE experts' respondent, 53(79,1 %) of trainers and expert respondents responded that there is resisttance while industry extension program is implemented. only 14(20,9 %) replied a no resistance response . Pertaining lack of awareness58 (86.6 %) of trainers

respondentsobserved that there was lack of awareness of IESP among MSE operators and only 9 (13.4%) gave a no response. More than half of trainers'respondents 37(55.2%) responded that no shortage of resources while support service training is conducted. Concerning transportation problem more than half 38(58.5%) of trainers, respondents responded that as there is shortage of transport and 27 41.5%) of respondents responded that there was no shortage of transportation

Table -13b. Challenges that are faced by Trainers While IESP was implemented

No	*Items*	Respondents					
		Trainers f =52	Experts f =15			Total	
		No	%	No	%	No	%
1	Is there high absenteeism of MSE operators while industry extension program training is delivered?						
	Yes	27	51.9	9	60	36	53.7
	No	25	48.1	6	40	31	46.3
	Total	52	100	15	100	67	100
2	Do you observe uncoordinated work among deans and Vice Deans or MSE officials and Vice officials?						
	Yes	32	61.5	10	67	42	62.7
	No	20	38.5	5	33	25	37.3
	Total	52	100	15	100	67	100
3	Are MSE Operators willing to take assessment after the support service?						
	Yes	25	48.1	5	42	30	46.9
	No	27	51.9	7	58	34	53.1
	Total	52	100	12	100	64	100

Regarding absenteeism,un-coordinated work of higher officials,unwillingness of MSE operators to take assessment are major challenges of industry extension program implementation.

Accordingly,41(78.8%) of trainers respondents and 12(80%) of MSE experts' respondents replied that resistance is the major problem. Moreover, 28 (53.8%) of trainers respondents and 9(60 %) of MSE expert's respondents replied that shortage of resources is not as such a major problem for industry extension program implementation. 28(56%)of trainers and 10 (66.7%) of MSE experts respondents respectively replied that transportation problem is another challenge of IESP implementation. At the same time, 27(51.9 %) of sample trainers 'respondent and 9 (60%) of MSE and IESP experts revealed that absenteeism of MSE operators while industry extension program is implemented is another major problem. 32(61.5 %) of trainers' respondents 10(66.7 %) of experts' respondent responded that uncoordinated work of deans, Vice-deans, Sub-City MSE development officials and Vice- MSE officials and Sub-City TVET officials is another challenge of IESP implementation. In case of willingness of MSE operators to take assessment after support 27(51.9 %) of sample trainer respondents and 7 (58.3 %) of MSE experts respondents revealed that they are not willing to take assessment. Moreover as responses given by trainers' and MSE experts' respondents from open ended questions, Shortage of manpower at Weredalevel, lack of training from the central office and sub-City higher officials, absence of shade MSE owners from the shade by employing workers(creates Communication Gap and brings lack of information needed from them), narrow space of shades, unsustainability of KAIZEN and 5 S after support, dependency of higher officials only on report and data gathering, economic problem of some MSE operators that made them daily income seekers rather than giving their time for support, lack of full practical skill of trainers, shortage of capital were problems which were written on open ended questions of trainers and MSE experts sample respondents.

As it is intensified from the interview of deans,Vicedeans,Sub-City MSE development officials and TVET agency officials and their vices; absenteeism,over confidence on skill and knowledge,lack of competence on practical skills of trainers,shortage of manpower

of experts,sustainability problem after support on KAIZEN and 5S implementation,Shortage of manpower of experts,tending to tax evasion,Corruption on shades giving,Mismatch of MSE and TVET officials on documentation,wrong and exaggerated attitude of trainers on technology adaptation and transfer,problem of Cope-up of trainers competence and some MSE operators skill ,lack of co-ordinated work of stakeholders of IESP ,lack of trainers in some sectors ,lack of market access, Shortage of Premises for MSE operators in the shade areas, Scattered location of shades, lack of raw materials or inputs, shortage of working capital ,high turnover of experts, documentation problem, resistance of Woreda level MSE experts to give correct information, reserved dedication of trainers, unrelated placement of managers, are major problems to implement IESP. But one dean interviewee underlined that all the problems arises because of recent start of IESP.

4.4. Issues related with Opportunities of IESP implementation.

Table 14– Opportunities of IESP by trainer respondents

No	Opportunities	SA	A	DA	SD	Total	WM	Rank
		4	3	2	1			
1	Industry extension program helps to develop practical skills for trainers	10	31	8	1	50		
	Weight	40	63	16	1	120	2.4	9
2	IESP helps to form a friendly environment with MSE operators	10	30	10	2	52		
	Weight	40	90	20	2	152	2.9	3
3	Industry extension program helps to have a training access for trainers	5	25	18	4	52		
	Weight	20	75	36	4	135	2.5	8
4	It enables trainers to asquint themselves with new technologies	12	28	10	2	52		
	Weight	48	84	20	2	154	3	2
5	Helps MSE operators to develop business management skills	12	27	10	-	49		
	Weight	48	81	10	0	149	3.04	1
6	It helps to create a sense of satisfaction among stakeholders	24	30	9	5	50		
	Weight	96	30	18	5	149	2.98	4
7	Industry extension program helps to develop dedication in work and sense of humanity.	15	6	12	5	38		
	Weight	90	18	24	5	137	2.74	7
8	Industry extension program helps to create entrepreneurial society	15	28	7	2	52		
	Weight	45	84	14	2	145	2.79	5
9	*Industry extension Service helps for trainers to be acquainted with different legal laws and activities*	12	26	10	4	52		
	Weight	48	72	20	5	145	2.79	5

SA =Strongly Agree A = Agree DA =Disagree SD = Strongly Disagree

As one observe from the above table according to trainers respondents industry extension service trainers gain practical skill while they are implementing the program

has the wrong perception since their reply is below the average(2.4) in actual fact when they implement technical intervention area most of them acquaint themselves with practical skills therefore this is a good opportunity for them and sometimes even they get machines which are not existed with in their TVET colleges and in case of creating training access for trainers (2.5) exactly on the spot of their agreement .The rest of trainer's responses were above the mean and they become good opportunities on the side of trainers while they are implementing industry extension program.

Key Mean = Weighted Mean =$\underline{W1f1+W2f2+\ldots\ldots+W4f_4}$

$f1+f2+\ldots\ldots..+f4$Where f1,f2…….f4= observedfrequencies , frequency W1,W2…W4= Weights given.

The finding revealed that the great majority of the respondents depicted that the main opportunities that are gained from industry extension program

4.5. Stakeholders involvement to implement industry extension program by trainers

Table-15.Co-ordinated work of stakeholders and success indicators of IESP by Trainers' respondents

No	*Items*	Respondents f =52			
		Trainers		MSE Experts	
		No	%	No	%
1	Do you think that the supports you get from your college/institution, from Micro and Small enterprise officials and are satisfactory while you are implementing industry extension program?				
	Yes	34	65.5	8	53.3
	No	18	34.6	7	46.7
	Total	52	100	15	100
2	Is there close relationship between TVET colleges/Institutions and Micro Finance institutions in case of implementation of industry extension program?				
	Yes	29	55.8	8	61.5
	No	23	44.2	5	38.5
	Total	52	100	13	100
3	According to your opinion is industry extension Service program successful in its implementation with this short period time span?				
	Yes	35	67.3	9	64.3
	No	17	32.7	5	35.7
	Total	52	100	14	100

Regarding the co-ordinated work of stakeholders and their support for industry extension program,34(65.5%) of trainer respondents and 8(53,3 %) of MSE experts replied that

they are supported by higher MSE officials and deans but 18((34.6 %) of trainers respondents and 7(46.7) of MSE expert respondents responded that they do not get as such support from higher officials.

Close relationship of TVETs and Micro Finance institutions has a great importance for viable implementation of IESP because one of the challenge for M|SE operators is shortage of access to finance as it is reviewed from from previous researchers in the review of related literature.

Accordingly trainers and MSE respondents were pushed to reply the close relationship of TVET colleges and Micro Finance institutions. Hence, 29(55.8%) of trainers respondents and 8(61.5%) of MSE experts respondents responded that that there is close relationship between TVET colleges and Micro finance institutions in case of implementation of IESP,but 23(44.2%) of trainers and 5(33.3%) of experts emphasized that there is no close relationship between them. The response that is obtained from interviewees also testified the existence of close relationship with Addis Microfinance institution. Regarding the success of industry extension program 35(67.3%) of trainers respondents and 9(64.3% of experts respondents replied that it is successful and 17(32.7%) of sample trainers and 5(35.7%) of experts' respondents replied that it is not successful. But from the interviewees they said that with its full challenges it is successful. The interviewees emphasize that IESP is on its infant age and the support is given by selecting development targeted sectors.

Generally, 34(65.5%) of trainers' respondents and 8(53.3%) of experts assured that they get support from higher officials and 29(55.8%) of trainers and 8(61.5%) of MSE experts revealed existence of close relationship between TVETs and Micro finance institutions and regarding industry extension implementation success 35(67.3%) of trainers and 9(64.3%) of MSE experts' respondents replied that industry extension service is successful. From the interviewees response though IESP is fenced by many challenges,with its infant age it is successful and it supports MSE enterprises to avoid their business activity irregularities and problems

Table-16.Extent of implementation of IESP pertaining trainer respondents.

No	Quesrions	High		Medium		Low		Very low		Total	
		No	%	No	%	No	%	No	%	No	%
1	What do you think the extent of technologies Selected, accumulated and transferred from your TVET College/Institution to Micro and small enterprises?	2	3.8	21	40	19	37	10	19	52	100
2	To what extent are MSE operators become successful when they take assessment?	34	65.4	14	27	4	7.7	0	0	52	100

To measure the extent of implementation of IESP trainers were forced to give their response concerning extent of technologies selected,accumulated and transferred from TVETs to MSEs 21(40.4 %) of trainer respondents responded that it is medium and 19(36.5 %) of respondents responded that it is low and 10(19.3%) of trainer respondents responded that it is very low and only 2(3.8%) of the respondents responded high. Pertaining MSE operators success while they take assessment after support, 34(65.4%) of trainer respondents responded that it is high and 14.

T**able-17MSE Expert respondents regarding implementation of IESP**

No	Questions	HS		S		Medium		Low		Very low		Total	
		No	%	No	%	No	%	No	%	No	%	No	%
1	How do you rate the availability of manpower in your sector office?	0	0	1	6.7	3	20	9	60	2	13	15	100
2	How do you rate the training given by higher officials to support your efficiency while IESP is implemented?	0	0	4	27	1	7	8	53	2	13	15	100

HS +Highly Sufficent S = Sufficient

For better performance of IESP fulfilling the necessary manpower is one of the managerial functions. Concerning this MSE experts' respondent responded that 9(60%) of them replied that the availability of manpower is low and 2(13.3%) replied it is very low and 3(20%). Interviewees also underlined the shortage of experts at Woreda and Sub-City level. Deans and Vice-deans of each college and Sub-City officials replied that there is high shortage and turnover of MSE experts. In case of the rating of training whether it is given or not 8(53.3%) of experts' respondents replied that the provision of training is low from MSE and IESP officials. And 2(13.3%) of the experts replied that the training given by higher officials is very low only 5(33.3%) of them said that sufficient and medium.

Thus the finding indicates that there is shortage and high turnover of MSE and IESP experts at Sub- city and Woreda level and within colleges as 11(73.3%) of expert respondents replied saying low and very low and concerning the training that must be given to experts to upgrade their work efficiency for fruitful result of the IESP is low as we observe from the finding 8(53.3%) of the experts' respondents replied that it is low and 2(13.3 %) said that very low which makes a sum of respondents 10(66.7%) of the experts' respondent, respond the extent of training from higher officials is low.

Table -18. Responses on the implementation of IESP by MSE Experts

	Items	Responses f =15					
		Yes		No		Total	
		No	%	No	%	No	%
.1	Do you work on technology transfer by making Contact with the nearest TVET?	8	57.1	6	42.9	14	100
2	Do you work on technical skill contest among MSE enterprises?	10	76.9	3	23.1	13	100
.3	Are TVET trainers dedicated and volunteer to implement industry extension program?	7	46.7	8	53.3	15	100
4	Do you think that all MSE operators work with full interest to be supported and volunteer to implement practically after the support?	9	60	6	40	15	100
5	Is there an endeavor to prepare exhibition for MSE operators with in your sub city?	13	86.7	2	13.3	15	100
6	Is there accumulated value Chain analysis in your sub-city/TVET?	6	46.2	9	53.8	15	100
7	Do trainers carry out training need assessment before training?	10	66.7	5	33.3	15	100
8	Do you work on awareness creation about the relevance of industry extension service to MSE operators?	6	42.9	8	57.1	14	100
9	Though the industry extension program is on its infant stage, do you think that its implementation is on the way of success?	12	85.7	2	14.3	14	100

MSE and IESP experts are near to MSE operators. They organize and identify them by their sectors to be able to get support of industry extension program. They are mediators of trainers and MSE operators. They know and solve each and every problem ofenterpriseowners. For further growth and sustainability of the support their unreserved commitment has a paramount importance for the implementation of industry extension program. Table 18 depicts their activities and involvement on the implementation of the industry extension program.

Concerning the work done on technology transfer by making contact with TVETs , MSE and IESP expert respondents replied that 8(57.1%) of them reported as they are working

on technology transfer and 6(42.9%) of them replied they are not working on technology transfer. In case of whether they are working on technical skill contest among MSE enterprises 10 66.7%) responded that they carry out technical skill contest among enterprises. As expert respondents responded on voluntariness of trainers to give support service 8(53.3%) said they have low commitment to give training support. This is a contradictory response to trainers respondents because almost 71.2% of trainer's respondents rate the willingness of trainers from moderate to very high(refer table -11).

MSE and IESP respondents were also pushed to reply the interest of MSE operators to be supported and 9(60%) of them responded MSE operators are interested but 6(40 %) of experts' respondents replied that as MSE operators are not interested to be supported. Concerning endeavor of Sub-City and Woreda experts to prepare exhibition for MSE operators 13(86.7%) replied that they prepare exhibition. In case of value chain of products accumulation and transfer to MSE operators,9(60%) of them replied that no value chain of products accumulation and 6(40%) of experts respondents replied the existence of value chain analysis.

Pertaqining need assessment before training 10(66.7%) of experts, respondents responded that there is a training need assessment before training and only 5(33.3%) of the respondents replied as there is no training need assessment.

MSE operators were asked whether they give awareness creation training for MSE operators or not and 8(57.1%) of them responded that they did not give training on awareness creation to MSE operators and 6(42.9%) of them gave training to MSE operators on awareness creation of industry extension program. MSE and IESP expert respondents were asked the success of industry extension program and 12(85.7%) of them responded that though the industry extension program is on the infant stage, it is successful.

To summarize the analysis of table 18 responded by MSE and IESP experts respondents response on the implementation of IESP,more than half (57.1%) of experts' respondents work on technology transfer making contact with the nearest TVET. In case of technical skill contest among enterprises majority of experts replied that they carried

outtechnicalskill contest. More than half of experts' respondent responded that there is low interest and commitment of trainers to give the industry extension support. Majority of expert respondents 9(60%) responded that MSE operators are interested to be supported. 9(60%) of experts respondents replied that there is no accumulation of value chain of products. 10(66.7%) of the expert respondents replied that training need assessment is carried out before training is given by the trainers and finally 12(85.7%) of expert's respondents replied that the implementation of industry extension program is successful

4.6. Motivationalfactors and Success indicators of MSE operators after support.

Table -19.Motivational factors and success indicators of industry extension program on the View of Expert respondents.

No	Questions	Responses f =11	No	%
1	What motivational factors MSE Operators get after they are supported by industry extension program?	Cleaning of work area Getting visionary mind Collaboration among enterprises Getting more income by using resources effectively	8	72.7
2	What are Success indicators of implementation of industry extension program?	Awareness is created among stakeholderInitiation of TVET Trainers and officers of MSEEvaluation of the work after it is performed	3	27.3

For open ended questions out of 15 trainer respondents only 11 respondents fill and returned the questionnaire. Out of the 11 respondents who gave their opinion on motivational factors of MSE operators 8(72.7%) said that their workshop become clean, and standardized, they get visionary mind and collaboration is created among enterprises and their income is increased after they get the support and on the other hand to

investigate success indicators of industry extension program 3(27.3%) of experts' respondent replied that awareness is created among stakeholders and MSE officers and TVET trainers are initiated to work and there is work evaluation to compare planned and actual performance with short period time interval and learn from failure and they plan for the future based on the past as interviewees replied

Table-20.Assessment of implementation of industry Extension Service by enterprise Operators

No	Items	f=79 Responses			
		Yes		No	
		No	%	No	%
1	Are skill gaps identified before training?	46	58.2	33	41.8
2	After the Support do you take COC assessment?	57	72.2	22	27.8
3	Is there transfer of improved or innovated technology to your enterprise?	28	35.4	51	64.6
4	Have you got KAIZEN Training from your nearest TVET college/colleges or institutions?	66	83.5	13	16.5
5	Do you get training about how to use machines, work shop handling, how to implement 5S's and 7 wastes?	69	87.3	10	12.7
6	Have you got training of business plan preparation, document handling and bookkeeping and entrepreneurship?	65	82.3	14	17.7
7	Have you been involved in a training program in the awareness creation of industry extension program?	32	40.5	47	59.5

IESP is designed by GoE from the very beginning to support MSE Operators and then to transform Micro enterprises into small enterprises by passing different stages and small enterprises grow to small and medium enterprises and these medium enterprises grow into large scale industries. The main objective of industry extension program is to make enterprises competitive in the world market and they will become technologically capable and create job opportunities for unemployed people and they will be able to produce import substitution products. In this research theother respondentsare MSE operators.

Concerning the implementation of IESP regarding the identification of skill gap before training 46(58.3%) of the respondents replied that skill gaps were identified and 33(41.85) responded that they do not know whether skill gaps were identified or not. In case of whether they are taking assessment after support or not, they have been pushed to give response and they replied that 57(72.2%) replied that they take assessment after the support. Regarding KAIZEN training 66(83.5%) responded that they get KAIZEN training where. as 13(16 .5%) replied that they do not get KAIZEN training. At the same time the training on 5S and seven wastes 69(87.3%) get training on 5S and 7 wastes. Concerning training of entrepreneurship and accounting 65(82.3%) replied as they get training in business plan preparation, document handling and accounting. But 14(17.7%) responded that they did not get training in accounting and entrepreneurship.32(40.5%) has got training on awareness creation and 47(59.5%) of them replied that they did not get training of awareness creation of IESP.

Table-21. Responses by MSE operators to rate the extent of Implementation of IESP

No	Items	High		Medium		Low		Very low		Total	
		No	%	No	%	No	%	No	%	No	%
1	How do you rate the practical training to fill the technical skill gap?	21	26.6	33	41.7	25	31.7	0	0	79	100
2	How do you rate the training that is given by TVET trainers on customer handling, entrepreneurship and modern business management system?	18	22.7	34	43.1	21	26.6	6	7.6	79	100
3	The loan service that you get from Addis Micro finance institution is it sufficient?	10	12.7	18	22.8	30	38	21	26.5	79	100
4	To what extent do you get technology transfer service from your nearest TVET college?	12	15.2	14	17.7	23	29.1	30	38	79	100

In case of rating of practical training to fill technical skill gaps by MSE operators, 33(41.7%) replied that it is medium and 25 (31.7%) responded it is low and 21(26.6%) replied that it is high. Concerning training given on entrepreneurship competency customer handling, entrepreneurship and modern business management 30(38%) of MSE operator respondents replied that it is low and 21(26.5%) replied high and 18 (22.8%) replied that it is medium. In case of technology transfer 30(38%) replied that very low 23(29.1%) responded that it is low and 14(17.7%) responded it is medium and only 12(15.2%) responded that it is high.

From the above analysis in case of rating practical training to fill the skill gap more than half of the respondents46(58.22 %) replied that low and very low. Regarding training given on entrepreneurship and modern business management 30(38%) of MSE operators'respondents and 21(26.5%) of the respondents replied that it is very low and low which makes a sum percentage of 51(64.6%) of respondents agree the low implementation of entrepreneurship competency. In case of technological competency implementation again respondents agree that its implementation is low and very low with a responding rate of 23(29.1%) low and 30(38%) responded very low and this makes 53(67.15) agree on under capacity implementation of technological skill competency.

Table- 22- Challenges of MSE operators while IESP is implemented

No	Items	Very high	High	Medium	Low	Very Low	Total	Weighted Mean	Rank
1	To what extent do you face shortage of Working capital?	5	4	3	2	1			
		10	26	34	11	8	79		
	Weight	50	104	102	22	8	286	3.63	4
2	To what extent do you face narowness of working area or Shops?	6	37	24	20	2	79		
	Weight	30	148	72	40	2	292	3.7	3
3	To what extent do you rate the low support given from stakeholders of industry extension program?	8	14	23	27	7	79		
	Weight	40	56	69	54	7	226	2.86	7
4	To what extent do you rate problem of skill gap?	0	12	47	26	4	79		
	Weight	0	48	141	52	4	245	3.1	6
5	To what extent do you have lack of business management skill?	26	24	19	9	1	79		
	Weight	130	96	57	18	1	302	3.82	2
6	To what extent do you have the problem of market relationship problem?	33	27	12	7	0	79		
	Weight	165	108	36	14	0	323	4.08	1
7	To what extent do you face infrastructure and premises problems?	7	36	17	13	6	79		
	Weight	35	144	51	26	6	262	3.32	5
8	To what extent do you face shortage of workers to be employed in your enterprise?	0	9	19	41	10	79		
	Weight	0	36	57	82	10	185	2.34	8

According to the rating scale of challenges by MSE operators, their main challenge is having market access to their products with the highest weighted mean of (4.08) and the next main problem is lack of business management skill with a weighted mean of (3.82)

and the third main problem is the narrowness of the shades. But all suggested challenges except shortage of workers are challenges for MSE operators' respondents since their response weighted mean is above the average.

Table -23 Opportunities of industry extension program by MSE operator Respondents

No	Items	f =79 Responses					
		Yes		No		Total	
		No	%	No	%	No	%
1	Have you got training on correct way of property handling and shop arrangement?	53	67	26	33	79	100
2	Have you got innovated technology transferred from the TVET Colleges	28	36	50	64	78	100
3	Have you developed entrepreneurship attitude after you get support from industry extension program?	50	63	29	37	79	100
4	Is your enterprise become profitable after the support?	59	75	20	25	79	100
5	Have you got a training of customer handling?	44	56	35	44	79	100
6	Have you improved your enterprise management skill after the support?	27	35	50	65	77	100
7	Have you got Market co-relationship with other enterprises, NGOs and governmental organizations?	37	47	42	58	79	100
8	Is your organization manage and organize its financial records after the industry extension support?	66	84	13	17	79	100
9	Do you take assessment in your occupation area after support is given by trainers?	53	67	26	33	79	100
10	Is your enterprise evaluated and transferred from one stage to the other?	30	38	49	62	79	100

Though there are challenges while IESP is implemented there are also opportunities to MSE operators. As in the MSE strategy mentioned,enabling legalframework,creating user friendly environment or streamlining regulatory conditions are some of opportunities of the support service by the GoE and other specific support area programs are facilitate

access to finance, incentive schemes, encouraging partnerships, training in entrepreneurship, skills and management, access to appropriate technology (MoTI,1997 :5)

As depicted on table 23 whether those opportunities are properly addressed to MSE operators or not they were pushed to give their response.Concerning whether they are supported on proper handling of properties and shop arrangement,53(67.1 %\) responded they got a proper and correct shop arrangement after the support whereas 26(32.9 %) of MSE operators did not get the support regarding correct property handling and shop arrangement.

Regarding whether they developed entrepreneurship,50(63.3%) of respondents replied that they developed entrepreneurship attitude or culture after the support.Whether their enterprise is profitable after the support service or not 59(74.7%) replied that it is profitable and only 20(25.3%) said that their enterprise is not profitable. Concerning whether they get the training about customer handling or not more than half 44(55.7%) of them responded that they have got the training but 35(44.3%) of them did not get the training of customer handling accordingto their response.

Concerning the improvement of their business management skill after support 42(58.2 %) still did not improve their business management skill 27(35.1 %) of MSE operators' respondent responded that they improve their business management skill after support.

In case of creating Market Co-relationship 42(58.2%) replied that they have market co-relationship problem and 37(46.8%) of them get a market relationship access. Regarding whether they able to manage with financial records of their enterprise MSE operators' responded that 66(83.5%) use accounting system for their enterprise and 13(16 .5%) of them replied that they do not use financial records within their enterprise. To assess whether they take assessment after support or not,53(67.1%) of MSE operators' respondents responded that they take assessment after support. Concerning the transfer of their enterprise from one stage to the next stage 30(38%) of MSE operators respondents responded that their enterprise is grown from one stage to the next and 49(62%) of the respondents responded that their enterprise is not grown to the next stage.

To sum up pertaining proper handling of properties and correct shop arrangement more than half of the respondents replied that they have got proper property handling and shop arrangement though, those who responded no is not a negligible figure. In the development of entrepreneurship attitude ,profitability of their enterprise, getting customer handling training, getting market access, being able to keep the financial records of their enterprise, more than a half of MSE operators respondents responded that they have got all these and below a half of the respondents gave a no response. In case of improvement of their business management skill, more than a half gave a no response.

Regarding implementation of IESP opportunities for MSE operators ,from the interview of deans,Vice deans of the three polytechnic colleges and Sub-Cities MSE development office officials and their vices and Sub-City TVET agency officials and their vices interviewees replied attention of the government ,availability of sufficient budget ,making good and neat work atmosphere ,increment of enterprises profit,5S implementation, creating market co-partnership,becoming certified and licensed after support and assessment ,grading their stage from one scale of growth to anotherincreased product quality and becoming competitive with private competitors involved in exhibitions and bazars,trust and confidence increment between MSE experts and MSE operators,knowledge and skill transfer,decrease of wastages of materials, work initiation are some of opportunities mentioned by interviewees.

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of the Findings

The purpose of this study was to assess the challenges and opportunities of Industry Extension program implementation in selected Sub- Cities of Addis Ababa namely Lideta,Nifas-Silk/Lafto and KolfeKeranio Sub-Cities and concerning TVET collegessamples;Tegbared, General Wingete and Nifas-Silk Polytechnic Colleges andone TVET institution for pilot test wastaken. A sample of 52 trainers,15 experts and 79 MSE operators with a total sample size of 146 respondents for the study using simplerandom ,purpose and availability sampling techniques. The formulated basic questions were:

1) How are TVETs and MSEs practicing the industry extension service Program?
2) What are the challenges of TVETs and MSEs while the industry extension Service is implemented?
3) What are the opportunities for Industry Extension Service Program Stakeholders while they are executing the work?
4) Do all Stakeholders of the program work collaboratively towards this program achievement using the policies, strategies, action rules and regulations?
5) What motivational factors MSE Operators' gain after they get the industry extension Service support from TVETs?
6) What are success indicators of industry extension service Program?

To address the above basic questions an effort was made by the researcher .To investigate proper implementation of Industry extension program and to investigate the challenges and opportunities faced by the implementers, qualitative and quantitative methods were employed in the study. Out of the 10 Sub- Cities within City government of Addis Ababa, three Sub-Cities were selected using purposive sampling due to time factor and budget constraint of the researcher. The subjects of the study were 52 trainers,15 MSE

and IESP experts and 79 MSE operators who filled and returned the questionnaires. Deans and Vice- deans of the three polytechnic colleges and Sub-City TVET agency office officials and their Vices and Sub-City MSE development Officials and their Vices, Addis Micro Finance officials were interviewed. Trainers were selected using purposive sampling technique and MSE and IESP experts were selected using availability and purposive sampling. Micro and small enterprise operators were selected using stratified random sampling. The reason for using purposive sampling is to include those trainers and experts who directly involve in the implementation of industry extension program and who is involved in four intervention areas of industry extension program and to avoid sampling errors. Generally the sampling techniques were based on the stakeholders who were directly involved on the industry extension implementation,the data for the study was obtained through questionnaires, interviews and documentary analysis. After the data has been collected it was analyzed using simple statistical techniques (tables and percentages) and descriptive statistics (Weighted mean). Based on 146 respondents (/Trainers, experts and MSE operators) and interview results acquired from the concerned officials the major findings of this study are summarized as follows.

Based on the results of the data analysis, the following summary findings were identified

1. According to the finding, with respect to gender distribution of the respondent's majority of trainers 33(63.5 %) were male and only 19(36.5%) were female. MSE and IES P expert respondents', majority of them 12 (80 %) are male and only 3(20%) are female and most of MSE operators 61(77.2%) are male and only 18(22.8%) of the respondents were female
2. .From the age point of view of the respondents more than half 31(59.6%) of trainers respondents found within the range of youngsters age range 21-30 and one fourth 13 (25%) of them found above the age of 41. Experts majority of them 12(80%) found between the age range of 21-30 and .Pertaining MSE operators respondents age distribution 32(40.5%) are found between the age range of 21-30 and 36(45.6%) are found between the age range of 31-40.The relevance of the age range here helps whether youngsters or old age groups are included within the sample size.

3. Concerning academic status of respondents, most trainers are academically qualified 23(44.2%) of them have first degree and above, 29(55.7%) have college diploma and above. In case of MSE and IESP respondents all of them 15(100%) have first degree and only 13(16.5) are below grade 10 the rest majority of the respondents 66(83.5%) have from 10 or 12 complete up to first degree academic status.
4. Pertaining work experience of sample respondent,trainers sample respondents have half of them (51.9%) have 6 years and above work exprience. This means that majority of trainers have good work experience. To those of MSE and IESP expert respondents, more than a half of respondents have 1-5 years' work experience.
5. In case of industry extension service coverage of MSEs,Lideta Sub-City from the existing 906 enterprises within the sub-City 201(22.2%) has got the service and Kolfekeranio Sub-City from the existing 2222 enterprises within the sub-city,only 360(16.2%) has got the coverage of industry extension program and Nifas Silk /Lafto sub-City from the existing 1173 enterprises only 400(34..1 %) has got industry extension support.
6. Many of trainers' respondents 38(73.1) replied that as there is shortage of trainers. Regarding to shortage of trainers deans' and Vice –Deans' interviewees also approve the shortage of trainers in some fields. Pertaining to support training given to trainers' majority of trainers 35(70%) get implementation how to implement IESP. In case of trainers carried out follow-up after support whether the training given to MSE operators is sustainable or not by far more than half of respondents 33(68.8%) responded as they are carried out follow-up after support in case of KAIZEN implementation.
7. Concerning willingness of trainers to give support service for MSE operators majority of trainers' respondents 37(71.2 %) which is a summation of very high,high and medium responded that they were willing to implement industry extension program. Pertaining clearness of objectives,punctuality of MSE operators while support is given,Practicality and sustainability of KAIZEN majority of the respondents made clear that it is moderate.

8. From the growing stages point of view of Micro and small enterprises in sample Sub-cities, it can be safely inferred that concerning Micro enterprises growth from one stage to another in three sample sub-cities as one recognizes from the analysis it is too low. But pertaining to Small Enterprises growth from one stage to the next somehow better than Micro enterprises. One of the preconditions for MSEs growth is getting and using industry extension service effectively and efficiently.
9. In line with major challenges of IESP while it is implemented,majority of trainers, and IESP and MSE experts,MSE operator respondents and interviewees responded that resistance of MSE operators to be supported, transportation problem, and absenteeism of MSE operators,, uncoordinated work of stakeholders, high turnover of Experts at Woreda and Sub-City level, insufficient training support of higher officials, absence of MSE owners from shade areas by employing others, dependency of higher officials only on data gathering, corruption, lack of premises and infrastructures in the shade areas, shortage of availability of market access ,tendency of MSE operators becoming daily income seekers rather than supported, lack of full practical skill of trainers,were major problems which has got full support from questionnaire respondents as well as interviewee respondents
10. To the point of view of trainers according to the rating scale of trainers' respondents the implementation of IESP created the opportunity of training access, made a friendly environment with MSE operators, made communication access with stakeholders, created a sense of satisfaction among stakeholders when they help MSE operators, created an entrepreneurship society, made trainers to aquatinted themselves with new technology, legal laws and activities.
11. In case of stakeholders support to implement IESP and the success of IESP more than half of trainers 34(65.5%) and 8(53.3%) of experts' respondents assured that stakeholders are involved to give support for implementation of IESP though the shortcomings are there and they replied that there is a close relationship between TVETs, MSEs and Addis Microfinance more than other stakeholders of IESP. Most of trainers 35(67.3%) and 9(64.3%) of experts responded that though IESP is in its infant stage, it is successful. Interviewees also supported the response of

trainers and experts on the success of IESP with its full challenges. One dean interviewee remarked that the challenges arise because of its newness.

12. Concerning implementation of four intervention areas 46(31.5%) from the whole three types of respondents responded that more is worked on technical skill competency intervention area and the next more implemented area according 38 (26 %) of respondents is on product quality and productivity competency and 28(19.2 %) of the whole three type subjects of respondents replied that more attention is given to entrepreneurship and only 26(17.8 %) of 146 respondents replied that as the whole intervention areas are practiced.
13. More than half (57.1%) of experts' respondent work on technology transfer making contact with the nearest TVETs. In case of technical skill contest among enterprises majority of experts replied that they carry out technical skill contest. More than half of experts' respondents responded that there is low interest and commitment of trainers to give the industry extension support. Majority of expert respondents 9(60%) responded that MSE operators are interested to be supported. 9(60%) of experts respondents replied that there is no accumulation of value chain of products. 10(66.7%) of the experts' respondent replied that training need assessment is carried out before training is given by the trainers and finally 12(85.7%) of expert's respondents replied that the implementation of industry extension program is successful.
14. With regard to MSE operators respondents whether their skill gap is identified before training or not more than half of the respondents 46(58.3%) replied that skill gaps were identified before training . In case of taking assessment majority of them 57(72.2%) replied that they take assessment after support. On KAIZEN implementation most of respondents of MSE operators 66(83.5%) they have got training on KAIZEN, 5S and seven wastes. With regard to Business plan preparation, document handling, bookkeeping and entrepreneurship training support majority of respondents 65(82.3%) have got the training. On awareness creation training concerning IESP importance and implementation more than a half of respondents 47(59.5%) of MSE operators did not get training.

15. According to the rating scale of challenges of MSE operators respondents, their number one challenge is problem of market co-relationship with other enterprises,government offices and NGOs with a weighted mean of (4.08) and the next more serious problem is lack of business management skill with a weighted mean of (3.82) and the next main challenge is narrowness of shades with weighted mean of (3.70). But except shortage of workers the rest problems provided for MSE operators' respondents to weight they are serious problems because the weighted mean is above the average by far. Hence, low support of stakeholders, problem of skill gap, insufficient availability of premises and infrastructure are the most serious problems for them.
16. Pertaining opportunities that are gained after support by MSE operators were proper shop arrangement and property handling,development of entrepreneurship attitude,profitability of their enterprise,knowingcusromer handling and treatementmechanisms,keepingfinanceialrecords,governmentattention,being certified and licensed after support and assessment, growing from one stage to another,increament of product quality and productivity,access to exhibitions and Bazars,trust and confidence increment between MSE experts and MSE operators,knowledge and skill transfer,decrease of wastages, and work initation opportunities responded by questionnaire respondents and interviewees.
17. Pertaining motivational factors of MSE operators due to implementation of IESP are getting their workshop and work area cleaned and standardized,decrease of wastages,having visionary mind and developing entrepreneurial mind,creation of collaboration among enterprises due to clusters,increase in income.
18. From the finding Pertaining motivational factors of MSE operators due to implementation of IESP are getting their workshop and work area cleaned and standardized,decrease of wastages,having visionary mind and developing entrepreneurial mind,creation of collaboration among enterprises due to clusters,increase in income.

5.2. Conclusions

After the data were gathered and analyzed,the researcher arrived at the following conclusions:

1. Regarding the practice of implementation of IESP by TVETs and MSEs, support service coverage is very low in all sample Sub-Cities. Shortage of trainers, high turnover of experts at Sub-City and Woreda level. Regarding implementation of four intervention areas,such as technical skill competency, Entrepreneurship competency, Technological skill competency and product quality and productivity improvement/KAIZEN/ competencies it is some how they are practicing in an equitable way but more attention is given to technical skill competency and the next is on quality and productivity improvement competency.On clearness of Objectives of IESP,punctuality of MSE operatorswhile support is given,practicality and sustainability of KAIZEN is moderate according to finding summary.

   Concerning MSEs growth stages especially micro enterprises, going from one stage to the next is very low. Concerning Small enterprises there is a better growth pattern from one stage to the next.One of the criterias for MSEs growth from one stage to the next is industry extension support.
2. The central point of this research problem is to investigate challenges of IESP while it is implemented. The major problems are resistance of MSE operators.high turnover of experts,atWoreda and Sub-City level,low access for training pertaining experts,absence of MSE owners from the shades,lack of premises and infrastructures in the shade areas,corruption,lack of full practical skill of trainers.
3. The major opportunities that are gained from implementation of industry extension program for MSE operators are proper shop arrangement and property handling,development of entrepreneurship attitude,increment of profitability knowing customer handling and treatementmechanisms,keeping financial records of own business,government attention to MSES,being certified and licensed,growing from one stage to next,increment of product quality and productivity access to exhibition and bazars are major opportunities. To the point

of view of trainers opportunities are opportunity of training access,make a friendline environment with MSE experts, and increase a sense of satisfaction for trainers while IESP is implemented.

4. Pertaining motivational factors and success indicators of MSE operators due to implementation of IESP are getting their workshop and work area cleaned and standardized,decrease of wastages,having visionary mind and developing entrepreneurial mind,creation of collaboration among enterprises due to clusters,increase of income.
5. Involvement of stakeholders for the implementation of IESP is somehow good according to trainer's response, however, from the interview respondents, however one of the challenge is uncoordinated work of stakeholders.

5.3 Recommendations

The recommendations presented address the final aim of the study which was to establish the assement challenges and opportunities of IESP.On the bases of the findings and conclusions reached the following suggestions are forwarded to improve the implementation of Industry Extension Service program in general its practices by minimizing the challenges and keeping up the opportunities.

1. Sub-City TVET Office and college Deans need to give attention for the shortage of trainers in some sectors because if trainers are not sufficiently available in some sectors the support service implementation might not be addressed to enterprise opprators as it is expected.

   Concerned higher Officials, Subcity MSE development office and TVET officials need to work intensively and with full commitement to increase the coverage of the support service.
2. Highturnover of experts is the the core point of the findings and this puts a black spot on the implementation of IESP. Concerned bodies and designated authorities at agency level and Subcity level need to investigate this critical problem and take affirmative action for the minimization of the turnover and even this need another research a concerned issue for researchers to identify sources of turnover of experts.
3. MSE operators need to use the support services effectively and especially the training that is given on Kaizen(5S and Seven Wastes) need to be sustainable and sincee the support service is important to them,they need to use it.
4. For fast and fair growth of micro and small enterprises growth movement from one stage to the next,the concerned stakeholders need to strive for hierarchical growth of MSEs as it is expected.
5. A considerable number of challenges were identified in this research finding. It is the assignment of AATVETA, Sub-City MSE Development offices, Sub-City TVET Agency,TVET College Deans, IESP Process owners to solve those challenges for further success of IESP.

6. Sub-City TVET Offices and MSE Development offices discussing with higher concerned bodies need to provide awareness and performance increasing trainings to experts,trainers and MSE operators about manual of IESP,Growth chriterias,MSE Strategy manual, and other related issue mannuals with respect to the implementation of industry extension Service implementation.
7. The keep up Opportunities which are mentioned in the conclusion need to be sustainable for better implementation of IESP in the future. For thiss TEVT Colleges,MSE development offices and Sub-City level TVET Offices, Addis Micro finance need to strive more and work collaboratively with full commitement.
8. Stakeholders of IESP especially TVET offices and Colleges or institutions,MSE development offices at Sub-City and Woredalevel,Addis Micro finance need to plan and work togetherd for better accomplishment of IESP

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APPENDICES

Appendix I

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATES

DEPARTEMENT CURRICULUM AND TEACHERS PROFESSIONS DEVELOPMENTAL STUDIES

A questionnaire to be filled by Trainers who are involved in the industry Extension Program implementation.

The purpose of this questionnaire is to collect information regarding the Challenges and Opportunities of Industry Extension Service implementation. Accordingly, the success of this study depends on the sincerity and frankness of your response. Be sure that the information you provide will be kept confidential and used only for academic purpose.

Thank you in advance for your cooperation.

Please note that:-

- No need of writing your name
- For Multiple Choice Questions, you can choose more than one if you believe that two or more alternatives are equally important.
- Put a tick mark in the box in front of your choice

Part One

Personal Data:

1. Name of TVET College/Institution
2. Sex :
   - ☐ A. Male
   - ☐ B. Female
3. Age :
   - ☐ A. 20 and below 20

☐ B. 21_30

☐ C. 31_40

☐ D. Above 41

4. Academic Status:

☐ A. 10+3

☐ B. College Diploma

☐ C. Level III_V

☐ D. First Degree

☐ E. MA/MSC and above

5. Work Experience

☐ A. Below one Year

☐ B. 1_5 years

☐ C. 6-10 years

☐ D. 11_15 years

☐ E. 16_20 years

☐ F. Above 20 years

6. Major Field of Study_____

7. Year of Graduation_____

Part Two

Issues Related to Implementation of Industry Extension Program:-

8. Do you think that the availability of competent trainers in your academic or training area is sufficient?

9. ☐ A. Yes

10. ☐ B. No

11. To what extent are trainers willing to conduct industry extension program out of their TVET colleges/Institutions?

☐ A. Very high

☐ B. High

☐ C. Moderate

☐ D. Low

☐ E. Very low

12. To what extent do you think objectives of Industry extension program are clear for you?

☐
☐ A. Very high
☐ B. High
☐ C. Moderate
☐ D. Low
E. Very low

13. Have you got enough training about industry extension program in relation to awareness creation, strategies and intervention mechanisms while you are providing training to Micro and small enterprises?

A. A. ☐
B. B. N☐

14. Do you think availability of training facilities is enough while you are conducting industry extension support service to Micro Enterprise Operators inside or outside your TVET College or Institution?

☐ A. Yes
☐ B. No

15. To what extent are Micro enterprise operators punctual while they atend training?

☐ A. Very high
☐ B. High
☐ C. Moderate
☐ D. Low
☐ E. Very low

If you put tick Mark the last two, please explain why

_____

_____

.13. Do you check the practicality and sustainability of KAIZEN implementation after you give training for Micro Enterprise Operators within a specified time interval?

- ☐ A. Yes
- ☐ B. No

14. For question number "13" if your response is "Yes" to what extent do you rate the practicality and sustainability of 5S's and Seven Wastes implementation after the support?

- ☐ A. Very high
- ☐ B. High
- ☐ C. Moderate
- ☐ D. Low
- ☐ E. Very low

15. Among the following intervention areas of Industry extension program which one is/are more implemented according to your opinion?

- ☐ A. Technical Competency
- ☐ B. Entrepreneurial Competency
- ☐ C. Technological Competency
- ☐ D. Quality and Productivity Competency
- ☐ E. All are implemented equally and fairly

Part Three

Issues related with the challenges and opportunities of industry Extension program implementation.

16 .For the questions which are listed in the table put a tick mark (√) either in "yes" or "no" column.

No	Questions	Yes	No
16.1	Is there resistance from micro and small enterprise operators in relation to implementation of industry extension program?		
16.2	Do you observe Lack of awareness While you deliver training to Micro and Small Enterprise operators?		
16.3	Is there high absenteeism while industry extension program is provided to MSE operators while support training is given?		
16.4	Is there lack of resources for training?		
16.5	Do you face transportation problem when you go out of the college to give training for MSE operators?		
16.6	Do you observe uncoordinated work among deans, Vice deans, Micro and Small enterprise officials and experts and other Stakeholders of industry extension program?		
16.7	Are Micro and Small Enterprise operators willing to take assessment after the support service ?		

17. Please write problems that you face while industry extension program is implemented other than mentioned in questions.

_____

_____

_____

_____

_____

18. Put a tick mark(√) after you read the statements within the table by selecting your choice in the columns, "strongly agree"," agree", "disagree"," strongly disagree**".**

No	About industry extension Service	Strongly agree	agree	disagree	Strongly disagree
1	Industry extension program helps to develop practical skills for trainers				
2	Industry extension program helps to have access for trainers.				

3	Industry extension service helps to form a friendly environment with MSE operators				
4	Industry Extension support service enables TVET trainers to acquaint with new technologies.				
5	Industry extension program helps to get business management skills.				
6	Industry extension program helps to develop communication skills.				
7	Industry extension program helps to create a sense of satisfaction among stakeholders.				
8	Industry extension program helps to develop dedication in work and sense of humanity				
9	Industry extension program helps to create entrepreneurial Society				
10	Industry extension program helps for trainers to be acquainted with different legal activities.				

Part Four

Issues in relation with involvement of stakeholders

19. Do you think that the supports you get from your college/institution, from Micro and Small enterprise officials and experts are satisfactory while you are implementing industry extension program?

    ☐ A. Yes

    ☐ B. No

20. How do you rate the coordinated work and plan together between your TVET College /institution and Micro and small enterprise officials and experts?

    ☐ A. Very high

    ☐ B. High

    ☐ C. Moderate

☐ D. Low

☐ E. Very low

21. Is there close relationship between TVET colleges/Institutions between Micro finance institutions in case of implementation of industry extension program?

☐ A. Yes

☐ B. No

22. To what extent do you think that Industry extension process owners and result Oriented Training process owners work together?

☐ A. Very high

☐ B. High

☐ C. Moderate

☐ D. Low

☐ E. Very low

Part Five

Issues in relation with motivational factors of Micro and Small enterprise operators after they get support by industry extension program

23. Put a tick mark(√) after you read the statements within the table by selecting your choice in the columns, "strongly agree"," agree", "disagree"," strongly disagree**".**

No	Motivational factors of Micro and small enterprise operators	Strongly agree	Agree	Disagree	Strongly disagree
1	Micro and Small enterprise operators gained entrepreneurial culture after the implementation of industry extension program.				
2	Innovated and invented technologies transferred to Micro and small enterprise operators.				
3	Micro and Small enterprise operators get business management ability after the support.				
4	They applied 5s's, and other KAIZEN practices on				

	their enterprise				
5	Micro and Small enterprise operators evaluated according to legally adopted criteria's and being able to be transferred from one stage to another after they get the support service.				
7	They got Value chain analysis about different products to change into salable items				
8	Micro and small enterprise operators use bookkeeping records and are able to keep their enterprise financial documents systematically.				
9	They are able to prepare a business plan				
10	They know how to produce quality products				

Part Six

Questions which are asked to assess success indicators of industry extension program.

24. What do you think the extent of technologies selected, accumulated and Transferred from your TVET College /institution to Micro and small enterprises?

- ☐ A. Very high
- ☐ B. High
- ☐ C. Moderate
- ☐ D. Low
- ☐ E. Very low

If you put tick Mark for either of the last two, please explain the reasons.

_____

_____

_____

25. According to your opinion is Industry extension service program successful in its implementation with this short period time span?

- ☐ A. Yes
- ☐ B. No

26. To what extent are Micro and small enterprise operators become successful when they take assessment?

- ☐ A. Very high
- ☐ B. High
- ☐ C. Moderate
- ☐ D. Low
- ☐ E. Very low

Thank You!!!

Appendix II

ADDIS ABABA UNIVERSITY

DEPARTEMENT OF CURRICULUM AND TEACHERS PROFESSION DEVLOPMENTAL STUDIESW

በጥቃቅንና አነስተኛ ኢንተርፕራይዝ አንቀሳቃሾች የሚሞላ መጠይቅ

<u>መግቢያ</u>

የዚህ መጠይቅ ዋና ዓላማ በኢንዱስትሪ ኤክስቴንሽን አገልግሎት አተገባበርንና በትግበራዉ ወቅት ባለድርሻ አካላት የአጋጠሙዋቸወን ችገሮችና መልካም አጋጣሚዎች አስመልክቶ ለጥናት የሚሆን መረጃ ለመሰብሰብ ነዉ፡፡

ስለዚህ የዚህ ጥናት ስኬት ይህን መጠይቅ በሚሞሉት ሰዎች መልካም ፈቃደኝነትና፣ ቅንነት ግልፅነትን የተላበሰ መረጃ አሰጣጥ ላይ የተመሰረተ መሆኑን እየገለፅሁ ለምታደረጉት ትብብር ከወዲሁ ልባዊ ምስጋናዬን በአክብሮት እገልፀለሁ፡፡

በኢንዱስትሪ ኤክስቴንሽን አገልግሎት አተገባበር ሂደት ዉስጥ ችግሮችንና ለትግበራዉ አጋዥ የሆኑ ምቹ አጋጣሚዎችን ለመለካት እና ለማዎቅ የቀረበ መጠይቅ፡፡

ማሳሰቢያ

ስም መፃፍ አያስፈልግም

በምርጫ መልክ ለቀረቡ አማራጭ መልሶች ካንድ በላይ አማራጮች እኩል መልስ የሚሆኑ ከሆነ ከአነድ በላይ መልሶችን መምረጥ ይቻላል፡፡

በሰንጠረዥ መልክ ለቀረቡ ጥየቄዎች ከፊትለፊት ባሉት አማራጮች የ X ምልክት በማድረግ ምላሽ ይስጡ፡፡

ክፍል አንድ

አጠቃላይ መረጃ ለመሰብሰብ የቀረበ መጠይቅ

አነስተኛና ጥቃቅነ አንቀሳቃሹን በተመለከተ መረጃ

ፆታ----------

2.. **ዕድሜ**----------

☐ **ከ** 20 **ዓመት በታች**

☐ **ከ**21-30

☐ **ከ**31-40

☐ **ከ**41 **ዓመት በላይ**

3. **የትምህርት ደረጃ**----------

4. **የአካስተኛና ጥቃቅን ኢንተርፕራይዙ ስም**----------

5. **ክ/ከተማ**----------

. 6. **ወረዳ**----------

ቀበሌ----------

የተደራጀበት የሙያ ዓይነት----------

ሴክተር----------

ድጋፍ የሚያደርግላችሁ ቴ/ሙያ ኮሌጅ/ተቋዋም- ስም----------

ክፍል ሁለት

የኢንዱስትሪ ኤክስቴንሽን አተገባበርን አስመልክቶ የቀረበ መጠይቅ

ከቴ/ሙያ ኮሌጅ የሚደረጉላችሁ የድጋፍ ዓይነቶች

ሀ. የቴክኖሎጂ አቅም ግንባታ ለ. የቴክኒካል ክህሎት አቅም ግንባታ ሐ/የጥራትና ምርታማነት/ካይዘን /አቅም ግንባታ መ/የስራ ፈጣሪነት/ኢንተርፕርነርሺፕ/አቅም ግንባታ ሠ/ሁሉም አይነት ይሰጣሉ

ሥልጠናዎች ከመሰጠታቸዉ በፊት አሰልጣኝ መምህራን የስልጠና ክፍተት ዳሰሳ ያካሂዳሉ

ሀ. ያካሂዳሉ ለ. አያካሂዱም

10.በቴክኒካል ክህሎት አቅም ግንባታ ላይ በተለየዉ ክፍተት መሰረት ስልጠና ሲሰጥ የሚሰጠዉ የተግባር ስልጠና፡-

ሀ. በቂ ነዉ ለ. በጣም በቂ ነው ሐ. በከፊል በቂ ነዉ መ. በቂ አይደለም

11.ለ 10ኛዉ ጥያቄ መልሱ /**በቂ አይደለም**/ የሚል ከሆነ በቂ ያልሆነበት ምክንያት ፡-

ሀ. የማሰልጠኛ ማሽን እና መሳሪያዎች አለመኖር ለ. በጥሬ እቃ አቅርቦት እጥረት ሐ/ በአሰልጣኝ መምህሩ አለመገኘት መ. የአነስተኛና ጥቃቅን አንቀሳቃሽ ሰልጣኝ በቀጠሮ ሰዓት ባለመገኘታቸዉ፡፡ ሠ. ሁሉም ምክንያቶች ናቸዉ፡፡

12.የቴክኒካል ክህሎት የስልጠና ድጋፍ ከተሰጠ በሁዋላ የሙያ ብቃት ለማረጋገጥ የብቃት ምዘና ወስደዉ ያውቃሉ ወይም በአነስተኛና ጥቃቅን የተደራጀ ሰዉ የድጋፍ አገልግሎቱን ከአገኘ በሁዋላ የብቃት ምዘናዉን ወስዶ የበቃ የአነስተኛና ጥቃቅን አንቀሳቃሽ ያውቃሉ

ሀ. አዉቃለሁ ለ. አላወቅም ሐ. ሥለ ሙያ ምዘና ግንዛቤዉ የለኝም

13.ለአምስተኛዉ ጥያቄ መልስዎ **አላዉቅም** ከሆነ ለዚህ ምክንያትዎን በፅሁፍ ይግለፁ፡፡

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14. ድረጅትዎን እንዲያሳድጉ፣ የደንበኛ አያያዝ ክህሎት እነዲያዳብሩ ጥሩ የደርጅትና የንግድ አመራር ክህሎት እንዲኖረዎት ከቴክኒክና ሙያ ከሚመጡ የ ስራ ፈጠራ / Entrepreneurship/ ባለሙያዎች የሚሰጠዉ ስልጠና ፡-

ሀ. ከፍተኛ ለ. በጣም ከፍተኛ ሐ. ዝቅተኛ መ.በጣም ዝቅተኛ

15.በወረዳ ወይም በክፍለ ከተማ ከአሉት የአንድ ማዕከል አገልገሎት ቢሮ ሰራተኞች የሚያገኙት አገልገሎት እና ድጋፍ፡-

ሀ. በጣም ከፍተኛ ለ. ከፍተኛ ሐ. መካከለኛ መ. ዝቅተኛ ሠ. በጣም ዝቅተኛ

16.ከአዲስ አንስተኛና ጥቃቅን ብድር ሰጪ ተቁዋም የምታገኙት ድጋፍ፡-

ሀ. ከፍተኛ ለ. በጣም ከፍተኛ ሐ. መካከለኛ መ. ዝቅተኛ

17. ከቴክኒክና ሙያ ተቁዋም ወይም ኮሌጅ ተሻሽሎ ወይም በፈጠራ ባለሙያዎች ተፈጥሮ ለድርጅትዎ መስፋፋት ወይም የስራ እድል ፈጠራ እንዲሆን የተሸጋገረ ቴክኖሎጂ የርስዎ ኢንተርፕራይዝ ወይም ለሌላ ለሚያዉቁት የአነስተኛ ናጥቃቅን ኢንተረፕራይዝ የተሸጋገረ

ሀ. አለ ለ. የለም

18.ለ 10ኛዉ ጥያቄ መልስዎ **አለ**ከሆነ መጠኑ፡-

ሀ. ከፍተኛ ለ. መካከለኛ ሐ. በጣም ከፍተኛኛ መ. ዝቅተኛ ሠ. በጣም ዝቅተኛ

የቴክኖሎጂ ልማት አቅም ግንባታ አተገባበር ለመለካት ለጥቃቅን አነስተኛ አንቀሳቀሾች የቀረበ መጠይቅ፡-

19.ሰንጠረዡ ውስጥ ከክንዉኖች ፊትለፊት **<u>አዎ</u>** ወይም **<u>አይደለም</u>**ከሚለዉ X ምልክት በማድረግ መልስ ይስጡ፡፡

ተ.ቁ	ኢነዱስትሪ ኤክስቴንሽን ትግበራ ላይ የተካሄዱ ክንዉኖች	አዎ	የለም
	እርስዎ ለሚያንቀሳቅሱት ድርጅት በአቅራቢያዎ ከአለ ቴ/ሙያ ኮሌጅ ወይም ተቁዋም የተላመደ ወይም የተሸጋገረ ቴክኖሎጂ አለ ?		
	ስለ ቴክኖሎጂ፣ ማምረቻ መሳሪያዎች አጠቃቀም፣ አያያዝና ፣ጥገና ሥልጠና እና የምክር አገልግሎት ተሰቶ ያዉቃል?		
	ስለ ጥራትና ምርታማነተ ማሻሻያ/ካይዝን/ ስልጠና ተሰጥቱዋል?		
	የአሉባችሁን ዉስጣዊና ዉጫዊ ችግሮች በመለየት ላጋጠሙዋችሁ ችግሮች ተጨባጭ መፍትሄ በመስጠት ተወዳዳሪ እንድትሆኑ በሚያስችል ሁኔታ በተደረጀና በተቀናጀ መልኩ ባለድረሻ አካላት የሚሳዩት ተሳትፎ ከፈተኛ ነዉ?		
	አምስቱን **ማ ዎች**(5S) ማጣራት/መለየት፣ ማስቀመጥ/ማደራጀት ማፅዳት፣ ማላመድ እና ማዝለቅ በወረክሾፕ ዉስጥ በቴክኒክና ሙያ መምህራን ስልጠና በተጠናከረ ሁኔታ ይሰጣል?		

	የ7 ቱን የብክነት ዓይነቶች እና መንስኤዎቻቸዉን እንዲሁም የሚ|ያስከትሉዋቸዉን ችግሮች እንድትለዩና እና የማስወገጃ ሥልቶች ለይ ከቴክኒክና ሙያ መምህራን ስልጠና በተጠናከረ ሁኔታ ይሰጣል?		
	የንግድ እቅድ ዝግጅትና ሂሳብ መዝገብ አያያዝ ስልጠና በቴክኒክና ሙያ አሰልጣኞች ከተሰጠ በሁዋላ ተግባራዊ አድርገዋል?		
	የሂሳብ መዝገብ አያያዝ በቢዝነስ ፕላን /የንግድ አካህድ ዕቅድ/ አዘገጃጀት ቀጣይነቱን ለመረጋገጥ ክትትልና ድጋፍ በአሰልጣኝ የቴ/ሙያ መምህራን ይደረጋል?		
	ስለ ኢነዱስትሪ ኤክስቴንሽን አገልግሎት እና ጥቅም በቂ ገለፃ እና ግንዛቤ ማስጨበጫ ሰልጠና ወስደዉ ያዉቃሉ?		

20.የእርስዎ አነስተኛና ጥቃቅን ኢንተርፕራይዝ የሚገኝበት ደረጃ

ሀ. ጀማሪ ለ. ታዳጊ ሐ. መካከለኛ ታዳጊ መ. የበቃ ሠ. ወደ ኢንዱስተሪ ደረጃ ያደገ

21.ድርጅትዎ ከተመሰረተ በሁዋላ ለ----------*ሰዎች ያህል የስራ ዕድል ፈጥሯል/የተቀጣሪዎችን ብዛት ባዶ ቦታዉ ላይ ይፃፉ፡*

22. *በ ኢነዱስትሪ ኤክስቴንሽን/መስፋፋት/ አገልግሎት ትግበራ ጋር ተያይዞ የአንስተኛና ጥቃቅን አንቀሳቃሾችን የአገጠሙዋቸዉን ችግሮች ለመለካት የቀረበ መጠይቅ፡-*

ተ.ቁ	ኢነዱስትሪ ኤክስቴንሽን ትግበራ ላይ የአጋጠሙ ችግሮች	በጣም ከፍተኛ (5)	ከፍተኛ (4)	መካከለኛ (3)	ዝቅተኛ (2)	በጣም ዝቅተኛ (1)
	የካፒተል እጥረት					
	የመስሪያ ቦታ ጥበት					
	የባለድረሻ አካላት ክትትል ማነስ					
	የክህሎት ክፍተት ችግር					
	የንግድ ድረጅት የመምራት ማነስ ችግር					
	የቢሮክራሲ ችገር					
	የገበያ ትስስር ያለማግኘት ችግር					
	ስልጠና በአግባቡና በጊዜዉ ያለማግኘት ችግር					
	የዉሃና የሃይል አቅረቦት የትረንስፖረት እና የስልክ አገልገሎት ያለመግኘት ችግር					
	የተቀጣሪ ሰራተኛ እጦት ችግር					

ማስገንዘቢያ፡ ሌሎች ከላይ ካሉት ሌላ የአጋጠሙ ችግሮች ካሉ በአለው ክፍት ቦታ በፅሁፍ ይገለፁ.

23.በኢንዱስተሪ ኤክሰቴንሽን ትግበራ ወቅት ለአነስተኛና ጥቃቅን አንቀሳቃሾች የተፈጠሩ መልካም አጋጣሚዎች/ Opportunities/ ለመለካት የቀረቡ መጠይቆች

ተ.ቁ	ኢነዱስትሪ ኤክስቴንሽን ትግበራ ላይ የአጋጠሙ መልካም አጋጣሚዎች/ Opportunities/	አግኝቻለሁ	አላገኝሁም
	የተደራጀና የተስተካከለ የንብረት አያያዝ		
	የተሸሻለና የአዲስ ቴክኖሎጂ ተጠቃሚነት		
	የስራ ፈጣሪነት/አንትረፕሩንርሽፕ/ ባህል ሥርፀት		
	የድርጅት እድገትና መስፋፋት		
	ትርፋማነት		
	ስለ ደምበኛ አያያዝ ዘዴ እዉቀት		
	የተቀላጠፈና ዘመናዊ ንግድ አመራር		
	የጥሬ እቃና መስሪያ ማሽን አቅርቦት		
	ዘመናዊ መረጃና ሰነድ አያያዝ ዘዴ		
	ፅዱ አና የተደራጀ የወረክሾፕ አያያዝ ዘዴ		
	ዘመናዊ የሂሳብ አመዘጋገብና አያያዝ ዘዴ		
	የካይዝን አሰራርና ጥቅሙን ዕውቀት		
	ብክነትን የመቀነሻ አሰራሮችና ዘዴዎች		
	የመስሪያ ቦታና ለመስራት የሚያስፈልጉ መሰረተ ልማቶች መመዋላት/ዉሃ ፣መብራት ስልክ ወዘተ/		
	የብቃት ምዘና እና የሙያ ዕዉቅና		

ማሳሰቢያ ፡ ሌሎች በኢነዱስተሪ ኤክስቴንሽን አገልግሎት ትግበራ ምክነያት መልካም አጋጣሚዎች ካሉ በቀረዉ ቦታ ላይ በፅሁፍ ይገለፁ፡፡

24.ከቴክኒክና ሙያ ኮሌጆች/ተቋዋሞች የስልጠና እና የቴክኖሎጂ ሽግግረ ድጋፍ በቂነዉ ብለዉ ያስባሉ

ሀ. አስባለሁ ለ. አላስብም

25.ከቴክኒክና ሙያ ኮሌጆች የስልጠና እና የቴክኖሎጂ ሽግግር ድጋፍ አገልገሎት ከአገኙ በሁዋላ የአገኙዋቸውን ጥቀሞች በፅሁፍ ይግለፁ.

26.ከቴክኒክና ሙያ ኮሌጆች/ተቋዋሞች በተለያየ ስልጠና የአነስተኛና ጥቃቅን ድርጅትዎ ድጋፍ ካገኘ በሁዋላ ትርፋማ በመሆን በካፒታል አቅሙም ሆነ ተጨማሪ የሰዉ ሀይል በመቅጠር እንዲሁም ከአንደኛዉ የእድገት እርከን ወደሚቀጥለዉ በመሸጋገር እድገት አሳይቱዋል

ሀ. አዎ አሳይቱዋል ለ. አላሳየም

አመሰግናለሁ!!!

APPENDIX III

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATES

DEPARTEMENT OF CURRICULUM AND TEACHERS PROFESSIONAL

A questionnaire to be filled by MSE Experts within –Sub Cities and Industry Extension Experts within TVET Colleges

The purpose of this questionnaire is to collect information regarding the challenges and opportunities of Industry Extension Service Implementation. Accordingly, the success of this study depends on the Sincerity and frankness of your response. Be sure that the information you provide will be kept confidential and used only for academic purpose.

Thank you in advance for your cooperation.

Please note that:-

- No need of writing your name.
- For multiple choice items, you can choose more than one if you believe that two or more alternatives are equally important.
- Put a thick Mark or X mark in the box in front of your box.

Part One

Personal Data:

1. Name of Sub-city(For sub-city experts)

_____

Name of TVET College/Institution/ for TVET Industry Extension program Experts

_____

2. Sex:

☐ A. Male

☐ B. Female

3. Age:

☐ A. 20 and below 20

☐ B. 21-30

☐ C. 31-40

☐ D. 41 and Above

4. Academic Status:

☐ A. 10+1 _10 +3

☐ B. Level III/IV

☐ C. Level V

☐ D. First Degree

☐ E. MA/MSC and above

5. Major Field of Study----------

6. Work Experience----------

☐ A. Less than 1 year

☐ B. 1-5 years

☐ C. 6-10 years

☐ D. 11-15 years

☐ E. 16- 20 years

☐ F. above 20 years

Part TWO

Issues related with implementation of Industry Extension program.

Answer questions 7-10 by encircling the correct answer of your choice or choices.

7. The availability of manpower within your sector is:-

A. Sufficient B. Medium C. not sufficient

8. The coordinated work and planning of work with the stakeholders of industry extension program is:

   A. Very high B. Medium C. high D. We plan individually E. No plan and coordinated work at all

9. If you plan in coordination with other stakeholders regarding industry extension service with which of them do you plan mainly.
   A. TVET Colleges /institutions B/ MSE Operators C. Sub-City TVET offices D. Addis Micro finance E. Sub-City Industry and Trade Office F. with all of them.
10. How do you rate the training given by higher officials to support your efficiency while you implement industry extension program?
    A. Sufficient **B. highly sufficient C. low D. Very low**
11. Read the questions which are listed in the table below and answer by putting 'X'

No	Questions	Yes	No
1	Do you work on technology transfer by making contact with the nearest TVET?		
2	Do you work on Technical Skill Contest among MSE Enterprises		
3	In your sub-city or TVET, do you work on four intervention areas of industry extension program?/Technical Competency, Entrepreneurial Competency, Technological competency and Product quality and productivity competency.		
4	Are TVET trainers dedicated and volunteer to implement industry extension program?		
5	Do you think that all stakeholders of industry extension program work with full dedication to implement it?		
6	Do you think that all MSE operators work with full interest to be supported and volunteer to implement practically after the support?		
7	Is there an endeavor to prepare exhibition for MSE enterprises in Your sub city?		
8	Is there accumulated Value Chain analysis in your Sub-city /TVET?		
9	Do you carry out a training need assessment before training?		
10	Do you work on awareness creation about the relevance of industry Extension Service to MSE operators?		

mark in your choice either 'yes' or 'no'.

12. What are the main Challenges /problems/ While you execute the activities of industry extension program? Write as much as you can. You can use English or Amharic language.
13. What are the opportunities of industry extension Service implementation to that of MSE operators and to the society as a whole? Write as much as you can on the blank space either using English or Amharic language.

_____

_____

_____

_____

_____

14. What motivational factors MSE operators get after they are supported by Industry extension program?

    _____

    _____

    _____

15. Though the industry extension program is on its infant stage, do you think that its implementation is on the way of success?

    A. Yes B. no

16. If your answer is" yes", write its success indicators.

_____

_____

_____

_____

Thank you!!!

Appendix IV

ADDIS ABABA UNIVERSITY

COOLEGE OF GRADUATE STUDIES

DEPARTEMENT OF CURRICULUM AND TEACHERS PROFESSIONAL

Interview guide for Deans and Vice –Deans.

The purpose of this interview is to gather data about challenges and opportunities on implementation of Industry extension program with particular reference to General Wingate,Tegbared,Nifas Silk TVET Poly technic Colleges which are dwelled in KolfeKeranio,Lideta and Nifas Silk Lafto Sub- Cities in Addis Ababa respectively.

1. Name of the College----------
2. Sex: ☐ Male ☐ Female
3. Qualification: MA/M SC ☐ BA/BSC ☐ OTHER ☐
4. What are the stakeholders your college working with to implement the industry extension service package?
5. What are the intervention areas to implement the IEP?
6. How do you explain your collaborative work with stake holders particularly with Sub-city MSE office and Addis Micro finance in the implementation of industry extension program?
7. On behalf of your college or institution what are the main challenges of Industry Extension Service implementation?
8. What are the opportunities that support and motivate industry extension service implementation according to your opinion?
9. Do you think that all stakeholders of industry extension program work collaboratively?
10. Can you suggest the motivational factors for MSE operators after they get the support service?
11. Even though the Industry Service program is on its infant stage ,can you mention some of its success indicators?

Appendix V

Addis Ababa University

College of Education

Department of Curriculum and Teachers Professional

Interview Guide for Sub-city MSE Officials

The purpose of this interview is to gather data about the challenges and opportunities on implementation of Industry extension program within Kolfekeranio, Lideta and Nifas Silk/ Lafto Sub-Cities MSE officials. Please note that:-

1. Name of the College----------
2. ----------
3. Sex: Male ☐ Female ☐
4. Qualification: MA/M SC ☐ BA/BSC ☐ OTHER ☐
5. What are the intervention areas of industry extension program?
6. Who are the stakeholders of industry extension program and as MSEs official are you working collaboratively with those stakeholders?
7. Is there a tight relationship with nearby TVET College /Institution to implement Industry extension program?
8. What is your opinion about the assessment and certification of MSE operators? Is it satisfactory with what is planned by your office?
9. What are the main challenges of industry extension program while it is implemented?
10. According to your view what are the opportunities of industry extension program while it is implemented especially to the angle of MSE operators and to the angle of MSE office within your sub-city?
11. What are the motivational factors for MSE operators after they get the support?
12. Do you think the implementation of the industry extension program is on the line of success up to now according to its implementation procedure? If it is that , can you mention its success indicators?

Appendix- VI

Addis Ababa University

College of Education

Department of Curriculum and Teachers Professional

Interview Guide for Addis Micro Finance Officials

The purpose of this interview is to gather data about the challenges and opportunities on implementation of Industry extension program

1. Sex: Male ☐ Female ☐
2. Qualification: MA/M SC ☐ BA/BSC ☐ OTHER ☐
3. How do you work With TVETs and MSE Development offices?
4. What is the contribution of Addis Micro finance for the implementation of industry extension program?
5. Do you think that your customers are satisfied by your service?
6. What are the main challenges that you face while you give service to MSEs in the implementation process of IESP?
7. What are success indicators of IESP?

Declaration

I hereby declare that this is an original work that has been properly cited and not presented in any place in any form.

Name of Student _____

Signature _____

Date _____

I hereby confirm that this thesis has been done with my supervision as a university advisor.

Name _____

Signature _____

Date _____