

**CHALLENGES OF INDUSTRY EXTENSION SERVICES FOR
MICRO AND SMALL ENTERPRISES. THE CASE OF
JIMMA AND AGARO TOWN.**

A THESIS SUBMITTED TO THE SCHOOL GRADUATE STUDIES OF
JIMMA UNIVERSITY IN PARTIAL FULFILLMENT OF THE
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OF BUSINESS ADMINISTRATION (MBA)

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Declaration

I hereby declare that this thesis ‘‘Challenges of industry extension Services for micro and small enterprises; the case of Jimma and Agaro town.’’ has been carried out by me under the guidance and supervision of Mr.Wandesen Siyum and Mr.Abera Jaleta

The thesis is original and has not been submitted for the award of any degree or diploma to any university or institutions.

Researcher’s Name

Date

Signature

CERTIFICATE

This is to certify that the thesis entitles “Challenges of industry extension Services for micro and small enterprises; the case of jimma and agaro town.”, submitted to Jimma University for the award of the Degree of Master of Business Administration (MBA) and is a record of confide research work carried out by Mr. *Mktar Adem*, under our guidance and supervision.

Therefore, we hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree or diploma.

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Abstract

The objectives of the research is to investigate challenges of industry extension services for micro and small enterprises in Jimma and Agaro town. the study employed a descriptive research design to achieve the objective. The target population under the study was the 246 MSE's in manufacturing, Construction, Urban agriculture sectors services renders and 45 Jimma and Agaro tvet trainers , 21 tvet management and 36 stakeholders from the two towns.

The study used a questioner, interview and observation to collect the required data from a sample of 348 respondent.

The qualitative data obtained from interview and observations will be analyzed using descriptive narrations and summarization. Quantitative data will be analyzed by spss version 20.

The study conclude that during any Corona Pandemic the over whole activities of MSE's are inactive they were out of business , there is no industry extension services from TVET trainers, no markets ,no income, even employees are left without salary, this shows that COVID 19 and performance of MSE's related to each other. The stake holders involvement and industry extension support are the key factors affecting the implementation of industry extension service for MSE's found in jimma and Agaro towns. The other key factors would be trainer competency and mastering towards IES has and challenges are positively correlate to each other.

The study recommended that there should be support from government and any non government during and after Covid 19 to sustain enterprises and a scheduled follow up and support by the college deans and vice deans about the implementation of IES, the stake holders (MSE's coordinators), tvet colleges need to Plan, work and all the support institution should create integration by rules and regulation & more innovative guarantee schemes should be designed to support MSE's.

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ACRONYMS/ABRIVATIONS

CSA - Central Statistical Authority

E.C. (E.C) -Ethiopian Calendar

EKI - Ethiopian Kaizen Institute

ESDP - Education Sector Development Program

ETB - Ethiopian Birr

FDRE - Federal Democratic Republic of Ethiopia

G.C. (G.C)- Gregorian Calendar

GTP - Growth and Transformation Plan

ILO - International Labor Organization

ISO - International Organization for Standardization

KAIZEN - A Japanese business philosophy of continuous improvement (改 Kai - means change, 善 zen - means good)

MDG - Millennium Development Goals

MoE - Ministry of Education

MSEDA - Micro and Small Enterprises Development Agency

MSEs - Micro and small Enterprises MSSEs –

Micro and Small Scale Enterprises Operators - Any member of an MSE (synonymous to member

PASDEP - Plan for Accelerated and Sustained Development to End Poverty

TVET - Technical Vocational Education and Training

TVET leaders (TVET Management Team) - Deans, Vice deans and training coordinators

IES- Industry extension services

CHAPTER ONE

1. INTRODUCTION

This chapter deals with back ground of the study, statement of the problems, objectives of the study, conceptual framework, hypothesis, research questions, significance of the study, scope of the study and limitation of the study.

1.1 Back ground of the study

Industry extension service is a service provision to micro and small enterprises to improve their Productivity after identifying and compiling their basic shortcomings through training and consultancy, technological development and market linkage; includes adaptation and transfer of best practices (Rogers, 2013)

It is designed to help adults to make sound decisions for improving their livelihoods and life styles and introduced in small and micro enterprises to improve their performance as they are important sources of job opportunity and income for many people in different countries, particularly in most developing countries. (Rogers, 2013)

The potential role of MSEs in economic development, employment generation and poverty reduction has been increasingly recognized in the national development frame work. Although no direct support was planned in ESDP IV, strategies were developed to assist MSEs to emerge and grow. One of this is the industry extension service delivered by TVET trainers which was established in August 2011. This services has four linked packages designed to support MSEs in improving their product quality and productivity, technology capacity development, technical skills development.

The Ethiopian government has demonstrated impressive dedication and ability to create the Preconditions for a market based and socially inclusive industrial transformation. It is strongly committed to investing in technological learning in order to build new competitive advantages. This becomes evident ambitious programmers

To strengthen the technical and Vocational Education system and to set up new universities as well as supporting institutions for specific sectors, e.g for textile, leather and horticultural products.

Towards the achievement of the Millennium development goals - MDG, Ethiopia has launched the second poverty reduction strategy paper known as plan for accelerated the sustained development to End poverty- PASDEP, as the country's economy in general is dominated by agriculture, the level of urbanization is low, 85% of the population, 90% of the poor live in rural areas the livelihood of most of whom is totally depends on agricultural outputs. The relative share of labor in total agricultural output has been declining (CSA, 1994 and 1998)

The low level of skilled human resources has significant effect on the low development on the industrial sector. Therefore the country needs to educate and train its workforce to the international standards to increase TVET's contribution to the industrial development and on building a culture of entrepreneurship and preparing the people for self employment (Yikunoamlak, 2000)

According to TVET strategies of Ethiopia it is designed to confirm sustainable development achieved in all economic sectors of the country, the main focus of creating job opportunities through MSEs development, to reduce un employment and alleviate poverty and enhancing MSEs to be base for industrial development in the country(Ethiopian MSEs strategy, 2011) the strategy emphasized that industry extension service package incorporating four packages: skill gap of MSEs, technology transfer kaizen application and entrepreneurship is be pillars to upgrade MSEs in to medium level enterprises in the process of transforming the country from agriculture led to industrialization. The service provision started since 2011 to all MSEs focusing on selective developmental sectors mainly manufacturing, urban agriculture, construction and agro-processing.

There are varies reasons for members of medium and small scale enterprises to lack skills in many competencies. It is the TVET institutions' mandate to assess their skill gaps and prepare training manuals and deliver training. To meet international standards and to be able to

compete in the international arena, TVETs are expected to replicate new technological output and transfer to the MSEs.

TVETs in Ethiopia are assumed to produce competent members of medium and small scale enterprises. After those members are graduated, the TVET institutes are expected to follow up and help those members of the MSEs in their growth towards industrialization. Therefore industry extension service is aimed to help those enterprises in four aspects skill upgrading and filling the gaps, technology transfer, entrepreneurship and quality and productivity.

1.2 Statement of the problem

The first justification while assessing challenges the researcher attracted to do this study esteems from the existing poor performance of MSE's. Thus, the practical driving force to this research is related to the alarming prevalence of success of enterprises in the two towns.

The second reason that attracted the researcher to conduct these paper is concerned with the little attention given to the industry extension services by researchers in the study area through the program has great contribution for the improvement of the productivity of MSEs. However, different studies were conducted which focused on the impacts, performance and factors of the extension program.

Industry extension service in Ethiopia is provided by instructors of TEVT colleges to make MSEs competent enough in the domestic and international market through production of quality and competitive products that can substitute imports. However as the annual reports of the regional TVET bureau clearly show, the extension service is not successful enough to enable MSEs generate sustainable job opportunity and income attributed to different internal and external factors(ANRS TVED Report,2018).

The main constraints of Micro and small enterprises are internal factors can be during start up or operations, which hinder the normal functioning of the micro and small enterprises that includes insufficient human power, shortage of working capital , using of back ward technology and unfavorable working place. And also the external factors affecting the micro and small enterprises can be at the beginning or at the process such as shortage of getting access to finance, low business enhancement service and in adequate market service, poor supply of the infrastructure. The industrial extension service was not organized based on needs assessment and prioritization.(ANRS TVED Report,2018). As a result, Some challenges face MSEs that hinder their growth.

Some of the issues are:-

Lack of adequate qualified academic stuff of stakeholders.

Shortage of trained instructors with industry extension failed.

Low cooperation and coordination between the government agencies, MSE's and TVET instructor

Problems of COVID 19

In addition to its impact on public health, coronavirus disease 2019 (COVID-19) has caused a major economic shock. The pandemic had already caused massive dislocation among small businesses just several weeks after its onset and prior to the availability of government aid through the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Across the full sample, 43% of businesses had temporarily closed, and nearly all of these closures were due to COVID-19. Respondents that had temporarily closed largely pointed to reductions in demand and employee health concerns as the reasons for closure, with disruptions in the supply chain being less of a factor. On average, the businesses reported having reduced their active employment by 39% since January. The decline was particularly sharp in the Mid-Atlantic region (which includes New York City), where 54% of firms were closed and employment was down by 47%. Impacts also varied across industries, with retail, arts and entertainment, personal services, food services, and hospitality businesses all reporting employment declines exceeding 50%; in contrast, finance, professional services, and real estate-related businesses experienced less disruption, as these industries were better able to move to remote production .(Alexander W. Bartika, Marianne Bertrandb , Zoe Cullenc , Edward L. Glaeserd , Michael Lucac,1 , and Christopher Stanton (April 13, 2020), the impact of COVID-19 on small business outcomes and expectations)

Drawing on a survey of more than 5,800 small businesses, this paper provides insight into the economic impact of coronavirus 2019 (COVID-19) on small businesses. The results shed light on both the financial fragility of many small businesses, and the significant impact COVID-19 had on these businesses in the weeks after the COVID-19-related disruptions began. The results also provide evidence on businesses' expectations about the longer-term impact of COVID-19, as well as their perceptions of relief programs offered by the government.

(Alexander W. Bartika, MarianneBertrandb , Zoe Cullenc , Edward L. Glaeserd , Michael Lucac,1 , and Christopher Stanton (April 13, 2020), the impact of COVID-19 on small business outcomes and expectations)

In Jimma zone (Agaro town) and Jimma town MSE's support by the TVET trainers is focus on quality and productivity competence (KAIZEN), technical skill, entrepreneurship and technological capability.

Similarly the main problem in the implementation of industry extension program is:-

Problems occur during COVID 19 time which this research is unique from other reseach didn't touch effect of the condemic related to implementation of task of industry extension especially in Jimma and Agaro town.

Shortage of skilled man power in IES.

Poor method of industry extension implementation.

Low cooperation and coordination of stakeholders towards industry extension.

So this research is intended to fill the gap that face industry extension programmers and to know whether the industry extension programmers that is four packages are implemented as expected, also to know (confirm) the challenges affecting the implementation of industry extension service in Agaro and Jimma town and to justify poor involvement of stakeholders in industry extension service and forwarding possible recommendation for the concerned bodies.

1.3. Objectives of the study

1.3.1 General objectives

The general objective of the study will be to investigate challenges that affect the implementation of industry extension service given by Agaro and Jimma towns TVET Colleges trainers to Micro and small enterprises found in two towns.

Specific objectives

The specific objectives of this study will be:-

- To explore the impact of corona virus disease 2019 (COVID-19) on micro and small businesses.
- To identify the current industry extension service to implementation practice given by Agaro and Jimma TVET College trainers to Micro and small enterprises.
- To identify the challenges that affects the implementation of IES.
- To identify the involvement of stakeholders
- To study the extent of linkage between TVET, Micro and small enterprises and stakeholders.
- To suggest some remedial actions that assist entrepreneurs to overcome the difficulties encountered them.
- To make recommendation on ways to correct these problems.

1.4. Conceptual frameworks

As stated in European journal of business and management (vol.11 No .1, 2019). MSE's have their own objective of success, but the these challenges are grouped in to five areas

External factors are beyond to the control of the industry and usually affect the industry group ,social network, government support and legality Philip(2010) intensity of competition,poor infrastructure, bureaucracy in company registration and licensing, the impact of local small market and population sizein the area culture, values and norms and tax burden. Habtamu (n.d)

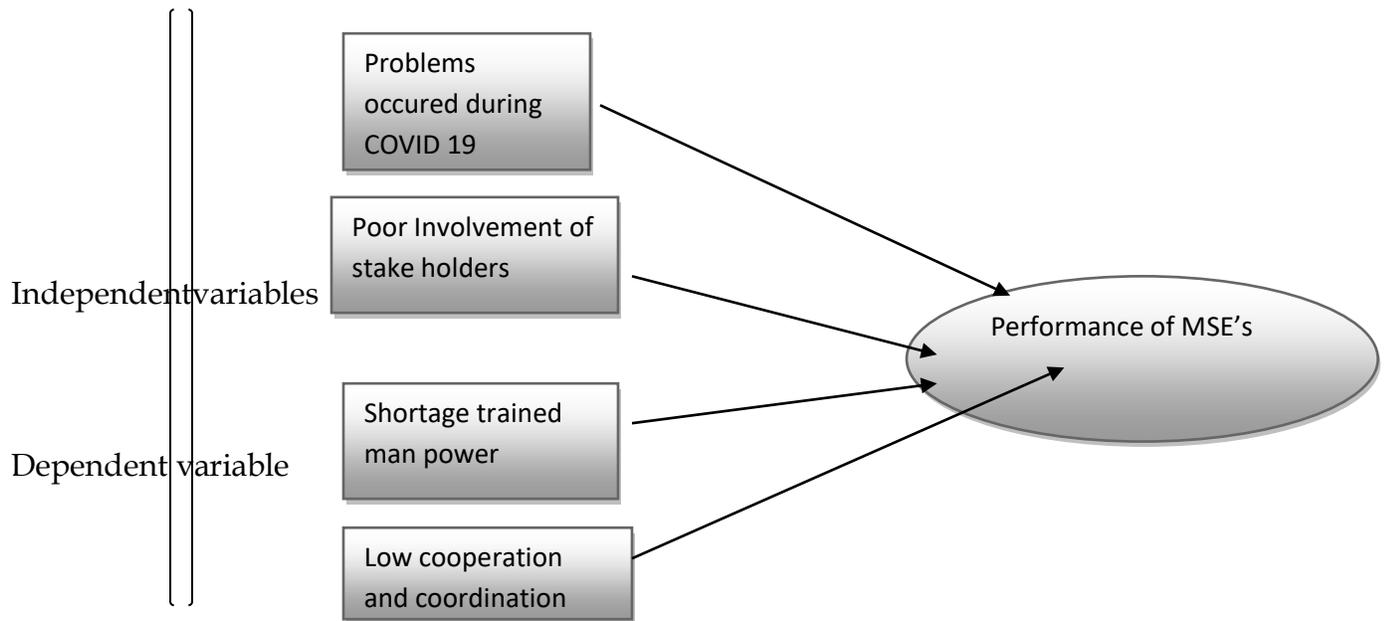
Financial problems; consists availability of business loans availability of personal loans, for business high cost of borrowing high operatingexpenses, lack of money, personal guarantees for business loans and poor cash flow Aukien & carter (2006)lined equate capital , high transactions costs Anthony & negwe (2006) lack of record keeping and documentationpoor management of cash, high investment in fixed assist during start uponplanned with drawl of cash for personal use. Abdullah and Beker(2000)

Marketing problem :-consists of technology and information access and lack of demand fore cast Alkali etl., (n.d)

Management problems includes;- lack of experienced employees in the market, dependence on family and relatives for labor, personal problems(health, social etc0 of owner manager, lack of experience in owning/ running a business lack of vision and growth orientation, lack of competitive bench marking, lack of evaluating results against plans on continuous basis, lack of general managerial experiences skills and training nd lack of strategic business planning. Drucker (1982)

Control and evaluation problems. Over emphasis on short term profitability, lack of quality control system inability to compete with large companies and fear of failure, bankruptcy and risk tacking (Habtamu, n.d)

Figure1. The frame work of relationship between independent variable and dependent variable



1.5. Hypothesis

After careful consideration of all independent variables and the dependent variable of the study, the following hypotheses are developed to be tested using analysis of variance (ANOVA) statistical technique. Problems occurred during COVID 19, Shortage of trained man power, poor involvement, low and uncoordinated method and IES have relation with performance IES given to MSE's.

HO1: There is relation between pandemic disease (COVID 19) and IES to success of micro and small enterprises

HO2: There is positive relationship between active involvement of IES and success of MSE's

HO3: There is positive relationship between skilled man power of IES and success of MSE's

HO4: There is positive relationship between well and coordinate method of IES and success of MSE's

1.6. Research questions

1. Does Problems of covid 19 Pandemic have impact on implementation of industry extension service and success of MSE's
2. Does involvement of stakeholders related to implementation of industry extension service?
3. Does shortage of professionally trained trainers have impact on success of implementation of industry extension service?
4. Does low cooperation and coordination significant effect on implementation of industry extension services?

1.7. Significance of the study

This study will be important to identify effect of Problems occurred during COVID 19 on performance of MSE's and to show other challenges that affect the industry extension service .The study also helps other researchers as the spring board for the next research.

1.8. Scope of the study

This Study will be confined to only one town of Jimma zone which conducted in three MSE's coordinator center of Agaro town and Agaro TVET college and town MSE's coordinator center of jimma city and two TVET found in Jimma town.

1.9. Limitation of the Study

There may be shortage of availability of theoretical literatures concerning the topic and its limitation is the inadequacy of the relevant studies on the subject matter especially in Ethiopian. This is because of industry extension service is new developmental intervention program initiated by the government.

The study will not assess the over socio economic impact of the program rather, the research will focus specifically on internal and external challenges of industry extension given to MSE's found in two towns

CHAPTER TWO

INTRODUCTION

Chapter two is structured along several themes. First of all, this chapter explains the **basic** Concept of industry extension services packages, Second, this chapter outlines the Current practices of Industry Extension Services (IES) in Ethiopia

2. 1.REVIEW OF RELATED LITERATURE

2.1 .1 Concept of industry extension services.

According to concise Oxford English dictionary 11th ed, industry is an economic activity concerned with the processing of raw materials and manufacture of goods in factories one can easy infer that industry is a means for the transformation of raw materials into more useful goods which has three elements raw materials, production and out puts. Industry is more than partner in the TVET system; in fact, it is the key driver. Industry plays the major role in the setting of occupational and competency standards; it is the underbelly of the national qualifications frame work and quality assurance provisions. Industry is the nuts and bolts of a quality and effective TVET system (Bakuli,1986)

The low level of skilled human resource has a significant effect on the low development of the Industry sector.

According to the business words.com (website) definition of Industry, it is a basic category of business activity. The term is sometimes used to describe a very precise business activity (e.g customer durables).If a company participates in multiple business activities, it is usually considered to be in the Industry which most of it is revenues are derived.

Industry extension service is a service provision to micro and small enterprises to improve their productivity after identifying and compiling their basic shortcomings

through training and consultancy, technology can development and market linkage; and includes adaptation and transfer of best practice (Rogers,2013).

For this purpose only in Ethiopia, it is defined as the process whereby different inputs are converted into marketable output (MoE, General business education,Grade11 Text book:2000)

We commonly hear these days Industry extension service is the process jointly executed by technical and vocational education and training institution and other stake holders to assess and felling the gaps of micro and small enterprises to make them competent, productive, progressive and profitable in the large economy.

2.2 Concept of Industry extension service package

2.2.1. Concept of Entrepreneurship support

Entrepreneurship refers to an individual's ability to turn ideas into action (Hisrich,2003) Entrepreneurship is therefore a key competence that helps people to be more creative and self confident in whatever they undertaken. Entrepreneurship skill is very vital in running business activities assuming moderate risks and to become successful in one areas of operation. The training package of Entrepreneurial for MSE's including training how to create a business network, business development service , development of business and expansion and management of opportunities(TVET Agency,2008) According to Fita (2011) Entrepreneurship support means business related support giving to MSE's in order to make them competent and competitive enough in the local and international market.

2.2. 2. Concept of Technical (skill)Support

According to Fita (2014) technical support involves identifying the technical gap and preparing a manual that can fill the gap of MSEs operators. The technical identification is done going to the enterprises working place and observing following the principles of value chain. After the TVET trainer identified the gap using gap identification matrix, he/she will prepare the training manual that can fill the gaps identification

2.2.3 .Concept of Kaizen support

According to Imai (1986)kaizen is a process of continual understanding by an organization to improve its business activities and process with the goal to always improve quality of products and services so that the organization can meet full customer satisfaction. Kaizen is a Japanese word means changes for the better which can easily be interpreted as continuous improvement (Imai, 1986). The kaizen process utilizes various tools and method to make the problem visible, and then uses formal root cause analysis and other means to identify and correct the problem at the source.

The result of implementing kaizen is to bring rapid improvement through lower costs, higher quality and better products or services attributes that customer recognize Berhanu (2014).

2.2.4. Concept of Technology transfer Supports

According to Eluid M. and Peter N.(2005) technology is a resource that can only be useful if adapted by firms to improve their efficiency and factor productivity. For MSEs a technology which is more of labor intensive , low skill spheres and that can use local materials and resources is recommended. Eiluid M. and Peter N.(2005) also added that technology development involves the design of new machinery ,equipment, production processes, materials and the methods of organizing production.

2.3. Current practices of Industry Extension Services (IES) in Ethiopia

Industrial extension services (IES) system is a relatively new departure for the country, having been in existence for 10 years. Prior to IES, the country had pursued a more traditional Business Service Development (BSD) agenda. In addition to the IES focus, there has been a whole new institutional framework established with IES at its forefront, taking the policy lead in relation to micro and small Enterprise (MSE) support. New structures have also been created at federal, regional, sub-city, college/institute and One-Stop-Shop level to deliver the new policy approach.

Ethiopia is prioritizing the development of the Micro and Small Enterprise sector (MSEs). In doing so, the country recognizes the critical importance of the state providing support to start-ups and early growth MSEs.

Whereas much of the world seeks to support Business Development Services (BDS), Ethiopia has in the last four years developed its own approach to MSE support. This unique approach is called Industrial extension services (IES) for MSEs (there is also an Agricultural Extension Service and a Health Extension service in Ethiopia). The focus on “industry” is noteworthy and reflects the fact that the country is seeking to replace its agriculture-led economic system with an industry-led one. This approach is embedded in the Growth and Transformation Plan II (GTP-II), the TVET GTP-II, the Industrial Development Strategy (2011).

The reality is that the manufacturing sector currently plays a limited role in the overall Ethiopian economy. It accounted for only 4.2% of Growth Domestic Product (GDP) in 2012/13, with the large and medium size manufacturing sector contributing 2.9% of GDP (i.e. the SME sector contributed only 1.3% of GDP and agriculture the bulk of the rest. (WB, SME Finance in Ethiopia: addressing the missing middle challenge, 2016).

The same WB study (2016) found that the young Ethiopian firms do not contribute to job creation as significantly as in the rest of the world they are not competitive and that new start-ups find it difficult to survive.

2.4 .Role of stake holders in industry extension service

All stakeholders hold a support policy plan for SMEs, with the intention of achieving their targets. Accordingly, the stakeholders taking parts in the proper implementation of government policy. The stakeholders' major objectives of MSE development in Ethiopia (a) Through creating job opportunity, bringing equal development, improving income of the society and poverty reduction

(b) Enabling the sector competent, facilitate economic growth and lays foundation for industry development

(c) Expanding the sector's development in urban by creating developmental investors.

(Berehanu Taddese ,(2014)

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

INTRODUCTION

Chapter three explained methodology, study design(data sources, sampling techniques, Sampling Size Determination, questionnaires, interviews, observation) Data Type, sources and collection procedures and Data Analysis and Interpretation

3.1 Methodology

A detail investigation of the implementation and challenges of the industry extension service is made in all technical and vocational education and training institutions. A descriptive survey method is used for the study. This helped to collect current information to answer the research questions. To keep its validity and reliability, the study is guided by the principles of multiple sources and subsequent cross checking of information as well as by applying various data collection instruments.

3.2 Study design

3.2.1 Data source

The relevant data will be collected by using primary and secondary data sources. Primary data is collected by field survey, interview and observation for micro and small enterprises, questionnaires and observation for technical vocational education and training institutions, micro and small enterprises development offices, stakeholder and customers of the micro and medium and small enterprises. In collection to this, MacDonald & Nicola, 2001 stated that:

Primary data survey refers to the review of existing information, and in the quantitative context may involve the manipulation of statistical data. It differs from primary research techniques in that the researcher does not collect the data directly and cannot control the actual data collected, but can bring to bear new insight through interpretation on presentation. Managing large data sets and large amounts of quantitative material does require some specialist skill. The police action team reports in the early Blair administration described the lack of availability of relevant data sets in order to support neighborhood working, and over the last decade more statistics have been made more readily accessible to wider range of people. Surveys are a popular method of collecting

primary data. The board area of survey research encompasses any measurement procedures that involve asking questions of respondents. They are flexible tool, which can produce both qualitative and quantitative information depending on how they are structured and analyzed.

Relevant materials and legal documents in each respective office are used as a secondary data. This includes review of the various reports and plans of TVET institutions of MSE development offices.

3.2.2 Sampling technique

A multi-stage sampling technique will be used to determine the sampling house holders. Firstly, two town will be purposively selected from twenty two small town which found in Jimma Zone and Jimma Town, secondly, three TVET college randomly selected from nine known TVET, thirdly 21 TVET management teams, 45 trainers and 36 representatives of stakeholders which are engaged in coordinating center. Fourth According to Jimmaa and Agaro town MSEs office data, there are 638 registered and active MSEs operation for more than two years (204 , manufacturing 197 construction and 137 urban agriculture and 100 services rendering) in selecting the sample, a proper stratified sampling technique, is used and the sample size is determined by yamai (1967) formulas as

$$n = N \frac{N}{1 + Ne^2}$$

$$\frac{638}{1 + 638(0.05)^2}$$

$$= 245.8 = 246$$

Table1. Number of the total and sample MSE's operators for the study by sector

Sectors	Total No	Sample in %	No. of sample of operator's
Manufacturing	204	38.535	79
Construction	197	38.5	76
Urban agriculture	137	38.5	53
Service rendering	100	38.5	39
Total	638		246

3.2.3. Sampling Size Determination

As two sample size determination, from among deferent methods (both mathematical and rule of thumb) which determines the sample size is recommended 20%--30% of the

populations to trainers and using minimum sample size for statistical significance , for TVET management and stakeholders are presented in table I blew.

Institution	Sampling Size							
	Trainers	Popula tion	%	TVET manag ement Team	po pul atio n	%	Stake holders	%
Jimma College	15	54	28	7	7	100	12	100
Jimma poly tech	18	62	29	7	7	100	12	100
Agaro TVET College	12	42	29	7	7	100	12	100
Total	45			7	7		36	

3.2.4. Questionnaire

Structured and semi structured questionnaire will be administrated to key informants. On those issues which need wider explanations, an open ended questionnaire is employed. The questionnaire is further segmented in to four areas as trainers. TVET leaders, MSE operators and stake holders.

As a whole 60 questionnaire will be distribute to TVET institution and to MSEs and other stake holders. The question format contains the general information about respondents.

The major question contains different subjective and objective question which is specific objective is the research and related to research question

3.2.5. Interview

Structured semi-structured, and open-ended interview guidelines developed and used to generate relevant data from sample households and project informants.

Interview is also used as one of the data collection instrument. Interview questions will be presented to respondents found in the two towns. Limited number of interview questions are administrated for the representatives in order to collect some supportive data on implementation of industry extension service.

3.2.6 Observation

The researcher will try to systemically observe realities on the ground. Accordingly, Transit-Walks and informal discussions with key informants of community member’s will undertaken.

As MacDonald & Nicola Headlamp stated;

“Observation can yield information which people are normally unwilling or unable to provide”

3.3 Data Type, sources and collection procedures

3.3.1 Data type, and sources

Quantitative and qualitative type of data from both primary and secondary sources is generated to be used as an input for the research findings.

The study is based on data obtained through in-depth office surveys, structured interviews with stake holds and representative and technical evaluations of each system. The study also includes qualitative data that is collected MSE members using participatory methods in a focus group format. Besides, qualitative data will be generated from an in-depth interview with TVET leaders and official statistics, and reports available in the implementing process will be the major sources of secondary data in this study.

3.3.2 Collection Procedures

The collection process will be started with preliminary survey and this preliminary survey, general descriptive figures of the existing industry extension service will gathered. Catherine, 2002 state that;

Descriptive research attempts to describe systemically a situation, problem, phenomenon, service or program, or provides information about, says living conditions of a community, or describes attitudes towards an issue. The purpose of the survey was to equip the researcher with general information that was used as an input in subsequent preliminary planning and sample selection tasks. After that, pilot surveys on all the offices. TVETs and MSEs were undertaken. The data collected during this survey was used to determine the sample informants to the study. Finally the actual data collection where questionnaires and interview guidelines were administered to each of the respondent households as well as to the project informants was undertaken.

3.4 Data Analysis and Interpretation

The relevant statistical tool; that is descriptive is employed where appropriate. The data analysis and interpretation will be done by using table by computing total, percentage, ratio and average. Here, is also worth mentioning that comparative statistical analysis and interpretation methods are applied for comparing similarities and differences between towns and TVETs. With regard to the quantitative data collected through interview and observation are analyzed using simple table to compare total and percentage.

Time frame

No	Types of task	
1	Identifying and defining problem/opportunity	3 weeks
2	Planning the research Design	1 month
3	Selecting research method	3 weeks
4	Selecting a sample procedure	2 weeks
5	Data collection	1 month
6	Evaluating and analyzing the data	1 month
7	Preparing and presenting the research report	5 weeks
8	Submit the research	2 weeks

Budget schedule

No	Task	Budget required(inETB)
1	Identifying and defining problem/opportunity	1500.00
2	Planning the research Design	1400.00
3		
3	Selecting research method	2000.00
4	Selecting a sample procedure	3200.00
5	Data collection	5600.00
6	Evaluating and analyzing the data	2350.00
7	Preparing and presenting the research report	2400.00
8	Submit the research	800.00
	Total budget required	19250

References

Anup, B. (2015). Technical and Vocational and Training in Workforce Development.

Journal of Training and Development, 1(1).

Aschalew, M. (2016). Critical Analysis on Skills of MSE Operators in Dire Dawa Administration. Dire Dawa University.

Bancy, M. (2016). Influence of Technology Transfer on the Growth of Micro and Small Catering Enterprise in Nairobi.

Jommo Kenyatta University ,Kenya. Bayisa, M. (2016). The Influence Technical Vocational Education and Training on Entrepreneurial and Job Opportunity in Assella Town.

Berhanu, A. B., & Takele. (2014). Identifying Key Success Factor Constraints in Ethiopia MSE, Addis Ababa Ethiopia.

Berehanu Taddese ,(2014) practice and challenges of kaizen implementation at Etoto poly technic cluster college ,AAU,Ethiopia

Fita, A. (2014), Assessment of the Implementation of Industry Extension Service and Challenge, Addis Ababa University, Ethiopia Ginja, T. (2016).

Some Issues of Micro and Small Enterprises in Wolaita Soddo Town of SNNPR, Ethiopia and Implication for Technical and Vocational Education and Skills Training: Leather Sector in Extra Emphasis, Vol 7 NO. 31 Haile, M. M. (2014).

Performance of Micro and Small Enterprises: The Case of Yeka Sub City, St. Marry University. Addis Ababa Ethiopia.

ILO. (2006).Vulnerability and young women Entrepreneurs: A case study of Ethiopian.

Industry extension manual. (2012). Federal Democratic Republic of Ethiopia TVET agency. Markus, L. (2013). Which Factor Determining the up Grading of Small and Medium Sized Enterprise in the Case Of Egypt.

Tigist, H. (2015). Assessing The Effectiveness of Kaizen implementation in Wanji Sugar Factory Plc, St. Marry University.

Tilahun, T. (2016). Factors Affecting Growth of Micro and Small Enterprises in Adama cityadministration. UNDP. (2016).

Growing Manufacturing Industry in Ethiopia: Understanding African experiences in formulating and implementing plans for emergence.

Journal of Entrepreneurship and Business Innovation ISSN 2332-8851 2020, Vol. 7, No. 1 57 Wondifraw, M., & Arega. (2017).

Training for Creativity and Innovation in Small Enterprise in Ethiopia. Haromaya University, Ethiopia.

Yodit G. (2015).Assessment on the Challenge of Micro And Small Scale Enterprise to Contribute to Sustainable Development ,Addis Ababa University, Ethiopia.

Ofer Malamud and Cristian Pop-Eleches (2006) GENERAL EDUCATION VERSUS VOCATIONAL TRAINING: EVIDENCE FROM AN ECONOMY University ofchicago and Colombia University.

Strategies and theoroes of vocational education ,(2001)new delhi:anmolpublications pvt.ltd.11002

Federal Democratic republic of Ethiopia,in the fourth –seventh sessionof the UNESCO internatonal Conference on Education,Geneva.

UNESCO/ILO (2002).Techical and vocational education and training in twenty first century.Recommendations,Paris:UNESCO/ILO

Micro and small enterprises development agency,(1996 EC) Annual report:Addia Ababa Ethiopi

UNESCO,(1982) Statistical analysis of demographic and educational training seminar .paris

Press MoE,2003: Financing Technical and Vocational education and training in Ethiopia.

Teklehaymanot Hailesilase (2002) ,misconception on technical and vocational education and training :Flambeau.vol,.10 no 1.

Alexander W. Bartika,Marianne Bertrandb , Zoe Cullenc , Edward L. Glaeserd , Michael Lucac,1 , and Christopher Stanton,the impact of COVID-19 on small business outcomes and expectations

Jimma University
College of business and economics
Department of MBA

Questionnaires to be filled by trainers of TVET institutions.

Dear Respondent:

The purpose of this questionnaire is to gather data pertaining to implementation of industry extension service by TVET institution in Jimma and Agaro town.

Yoursincere and frank answers are required to all question.

Thank you for devoting of your time.

Answer the following questions as much. Circle the alphabet of correct answer for choise and fill the blank spaces

1. Name of TEVT college/institution_____
2. Sex: a) male b) female
3. Marital status: a) single b) married c) divorced d) widowed
4. The occupation area you are specialize in:_____
5. Position in the occupational sector_____
6. Your level of education qualification: a. certificate (level I,II, and III) b. diploma (level IV and V) c. BA/BSc d.. MA/MS and above
7. Have you Participarein implementing industry extension service in micro and small enterprises?
A. yes B. no
8. If your answer to question 7 is yes how you do think will help the graduates?
 - a. by providing skills gap training
 - b. by implementing Kaizen
 - c. by offering technology transfer
 - d. by providing entrepreneurship training

9. Have you satisfied with the outcomes of implementation of industry extension ?
A/yes B/no

10. If your response is "NO" Why because?

A/I have'nt enough Knowledge about the package

B/I am busy with the regular class

C/I have'nt morale, because of difficult behavior of micro and small enterprises.

D /because less coordination of stakeholders

11. Does your institution have an effective coordinaton program to implement industry extension ? a/yes b/No

12. If your answer to question 9 is "NO"who is responsible one?

A. TVET management

B. Department heads

C. Trainers

D. All academic and technology transfer and industry extension staff members

13. What type of challenges did you face in implementing extension service given micro and small enterprises?

A. Trainers lack of skill to train all the package of industry extension service

B. operator of the micro and small enterprises are not willing to take the training

C. Low cooperation and coordination of Stakeholders

D.The TVET institution does not have regular schedule to implement the industry extension service.e No need of industry extension service from the side ofmicro and small enterprises because of lack of awerness.

14 Have you implemented industry extension during COVID 19? Yes/No

15. If your response is "NO" why?

16 .Please add other different problems you faced to improve the implementation of industry extension service in your area_____

Jimma univeristy

College Business and Economics

Department of MBA

Questionnaire filled by Deans, vice Deans and other management members of TVET College

Dear Respondent:

The purpose of this questionnaire is to gather data pertaining to implementation of industry extension service by TVET institution in Jimma and Agaro town.

Your sincere and frank answers are required to all question.

Thank you for Devoting of your time.

Answer the following questions as much. Circle the alphabet of correct answer for chose and fill the blank spaces

1. Name of TEVT college/institution_____
2. Sex: a) male b) female
3. Marital status: a) single b) married c) divorced d) widowed
4. The occupation area you are specialize in:_____
5. Position in the occupational sector_____
6. Your level of education qualification: a. certificate (level I,II, and III) b. diploma (level IV and V) c. BA/BSc d. MA/MS and above
7. Does your college allocated budget for industry extension services?
A /yes B/No
8. If your response for the above question is " NO" what the reason?
A/ itis not accustomed allocating the budget for industry extension services.
B/low attention from the stakeholders
C/Add any other reason if there is_____

9/ when you are coordinated the program what problems did you faced

A.Trainers lack of skill to train all the package of industry extension service

B. Operator of the micro and small enterprises are not willing to take the training

C. Lack of follow up by stakeholders

D.The TVET institution does not have regular schedule to implement the industry extension service.

E. No need of industry extension service from the side of micro and small enterprises because of lack of awareness

Add any other challenges from your experiences _____

10. How do you compare and evaluate the involvement other stakeholders in implementation of industry extension?

A/very high B/High C/medium D/low

11. If your response above is "low" what is the reason?

A/Lack of awareness about industry extension

B/Low attention given to the program

C/Low participation of trainers due to lack training about industry extension.

D/low cooperation and coordination from Government Agencies

12.What is the solution to reduce challenges of industry extension?

A/enough training must be given for trainers of TVETCollege to build their capacity the program.

B/ creation of awareness must be needed to all stake holders, Operators of Micro and small enterprises and for Government agencies.

C /the coordination and cooperation system must be change to reduce the challenges.

D /Participation of stakeholders, trainers, operators and Government agencies must be developed.If you have any other additional method to reduce the problem,welcome. _____

JIMMA UNIVERSITY
COLLEGE BUSINESS AND ECONOMICS
DEPARTMENT OF MBA

Questionnaire filled by stakeholders of industry extension

Dear respondent:

The purpose of this Questionnaire is to gather data pertaining to implementation of industry extension services by TVET institutions in Jimma and Agaro town.

Your sincere and frank answers are required to all question.

Thank you for devoting of your time.

Answer the following questions as much. Circle the alphabet of correct answer for choice and fill the blank spaces

1 Name of TEVT college/institution_____

2 Sex: a) male b) female

3 Marital status: a)Single b) married c) divorced d) widowed

4. How do you evaluate the industry extension services currently implemented by TVET institutions around you?

A. very good B.good C. Fair D. Poor E.Very poor

5. If your answer to question no 4 poor or very poor what is your reason?

A .no change on productivity and profitability of micro and small enterprises

B .There is no coordination between the stakeholders of the industry extension services

C .because of low attention is given to micro and small enterprises to implement industry extension services

D. The TVET is not dedicated to implement the services.

6. Based on your experience what challenges did you face in the implementation of industry extension services?

A. shortage of skilled man power from TVET.

B. problems of cooperation and coordination from stakeholders

C. Low participation of industry extension services

7. From industry extension services packages which one is more implemented?

A. Entrepreneurship training B. Kaizen C. Skill gap training D. Technology transfer

8. How were your business activities before COVID 19

A/functional B/non functional.

9. How were your business activities during COVID 19

A/functional B/non functional

10. If it was non functional during COVID the reason was:-

A/fear of employees B/market problem C/shortage of materials.

11. During COVID time number of employees reduced by:-

A /50% B/75% C/100%

12. During COVID time your monthly income was decreased by:-

A /50% B/75% C/100%

13. If your income during COVID was cause for failure how did you overcome shortage finance? A/cash on hand B/credit services from government C/credit from any person or friends.

14. What did you say about the coordination of stakeholders with TVET trainers, with Operators? A/very high B/High C/Low D/Very low

15. If your response in question number 8 "low" or "very low" what is the reason?

Explain _____

10. Please write your suggestion to improve the implementation of industry extension services-

Thank you

JIMMA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF MBA

Data collection Form

Interview questionnaire

- 2 What is the current practises of the implementation of industry extension service? Is it weak or strong?
3. Who is the responsible person in the implementation of industry extension service in your organization?
4. What challenges can you mentions in the implementation of industry extension service in your town?
5. Did you conduct industry extension service until now ? If your answer is yes, where did you conduct?
6. Do you think the industry extension service implemented so far is effective? Why?
8. How do you evaluate the roles and contribution of the stake holders? Why?
9. What do you suggest to be done in the future for better improvement of the implementation of industry extension service in Jimma and Agaro town?
10. Do you think that all the packages of the industry extension service are equally implemented?
11. What is the benefit of industry extension service to the MSEs and to the country?
12. Why do you think is industry extensions service is conducted by the TVETs trainers?
- 13.What is out look of operators, stakeholders, trainers and others to industry extension service?

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Observation data collection Form

1. Trainers
 - 1.1 Did the trainer have annual, semi - annual, weekly schedule for the industry extension service?
 - 1.2 What evidence did the trainer show about previews implementation of at least one package of the industry extension service? (Photo, Videos, Training, manuals, attendances, etc...)
 - 1.3 Did the trainer have a follow up schedule and show as evidence?
 - 1.4 Evidences show to the observer to investigate knowledge about industry extension service?
 - 1.5 Did the trainer have conducted an impact assessment to show that the industry extension service implemented so far is effective?
2. TVET Leaders (Deans, vice Deans, and Training Coordinators.)
 - 2.1 Evidence about the allocation of budget for industry extension service.
 - 2.2 Annual schedule of industry extension service
3. Operators of the MSEs
 - 3.1 Evidence about the start of at least one of the industry extension service packages (kaizen board and Signs, transferred technologies, financial records, identified skill gaps, etc..)
4. stake holders (town MSEs offices, Trade and industry offices)
 - 4.1 Annual schedule for the industry extension service
 - 4.2 Recorded evidences of the previously implemented industry extension services (the packages, the number of MSEs and operators capacitated, the number of trainers involved, etc...)
 - 4.3 Evidence shown to evaluate the effectiveness and impact of the industry extension service

