



**ST. MARY'S UNIVERSITY COLLEGE**  
**SCHOOL OF GRADUATE STUDIES**

**THE EFFECT OF GOVERNMENT SUPPORT IN  
ENHANCING THE PRODUCTIVITY OF TEXTILE AND  
LEATHER MICRO AND SMALL ENTERPRISES:  
THE CASE OF GULELE SUB CITY**

**BY**  
**ENDRIS YIMER ADEM**  
**SGS/0005/2003**

**APRIL 2013**  
**ADDIS ABABA, ETHIOPIA**

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

BDS-Business Development Service

FDRE-Federal Democratic Republic of Ethiopia

ILO-International Labor Organization

MOTI-Ministry of Trade and Investment

MSEs-Micro and Small Enterprises

TVET-Technical and Vocational Education and Training

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## **ABSTRACT**

The objective of this study was to assess the effects of government supports in enhancing the productivity of micro and small businesses in textile and leather sub sectors. To achieve the intended goal of the study descriptive survey research method was employed. Under descriptive research method, both quantitative and qualitative data collecting techniques were used. Data were collected through administration of questionnaires and interviews. The participants of the study were selected through systematic random sampling techniques. In the study, it was found out that training opportunities offered by the government in upgrading the skill of operators were not adequate to fill their skill gaps as the time allotted was short and there was problem of accessibility to many of micro and small enterprises /MSEs/. Moreover, the support services in technology transfer schemes were not adequate and the frequency of technology transfer was very much rare for the majority of MSEs. Contrary to the limited opportunities in technology transfer and skill improvement supports, beneficiaries were able to enhance their productivity with regard to offering quality products, minimizing wastage, introducing improved working methods and overall improvement in labor productivity. To eradicate the bottlenecks in technology transfer as well as delivering of all round micro enterprise development supports, the government needs to mobilize various stakeholders who have an interest on the area. Beyond the role of producing skilled human resource, higher educations' particularly technical and vocational colleges need to be oriented and strengthened to make technology transfer as part of their core duties. Orienting them to contribute in technology transfer and providing favorable infrastructure in vocational and technical colleges can be great resources to technology creation, adaptation and facilitation of its transfer.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Micro and small enterprises (MSEs) have become of increasing importance in the economic and social development of a country. This has led policy makers to target on expansion and development of micro and small scale enterprises as strategy of poverty alleviation and reduction in developing countries. According to ILO (2003), MSEs tend to employ more labor-intensive production processes than large enterprises. Accordingly, they contribute significantly to the provision of productive employment opportunities, the generation of income and ultimately, the reduction of poverty.

MSEs remain as a tool for reducing unemployment and poverty if they are sustainably mobilized and supported by the government and other concerned stakeholders. Government supports include a wide range of services designed to help micro and small enterprises to enhance their competitiveness and overcome barriers of productivity (DFID, 2002). These services include training, consultancy and advisory services, marketing assistance, information, technology development and transfer, business linkages for marketing products, and linkages to financial sources (Hirity, 2009).

Individual firms, of course, are responsible for their own success or failure, but the involvement of government and other service providers plays an important role in enhancing their competitiveness. According to Philipos (2006), limited access to markets and finance were the most important constraints of micro and small enterprise sub-sectors. In line with this notion, the Federal Democratic and Republic of Ethiopia /FDRE/ launched MSE's development strategy to promote and facilitate all-round support which included both financial and non-financial supports (MOTI, 1997).

To improve the practices of government micro and small enterprise development supports, in terms of achieving increased productivity, assessing the outcomes through research is vital. Hence, effects of support interventions can be identified and documented to take as useful lesson for future service provisions to bring significant impact on productivity and sustainability of MSEs. Therefore, the aim of this study was to assess the effects of government support services particularly in skill improvement and technology transfer schemes in enhancing the productivity of micro and small enterprises in Gulele sub city on textile and leather goods producing enterprises.

## **1.2 Statement of the Problem**

MSEs have been recognized as a priority sub-sectors for growth and development planning in many countries of the world. According to the Ministry of Trade and Industry, textile and leather sub-sectors are among the major six potential MSE sub-sectors identified by MSE development strategy as a contributor of employment and income generation (MOTI, 1997).

Despite its potential for employment creation, among other things, these sub-sectors have constraints that reduce workers productivity mainly due to the use of backward production technology and lack of appropriate skills required to operate. The engagement of micro and small business operators having skill deficiency and backward technology significantly retards their performance. This problem leads to loss of market as their products are of inferior quality.

According to McGrath (2005) workers skill deficiency can be handled through the provision of effective skill improvement training coupled with introduction of better production tools. A skilled micro business operator knows better how to gauge work, understands the impacts of variability, and knows to stop production for corrective actions when quality falls below specified limits.

In line with the above notions, to address problems of poor productivity of MSEs in Textile and leather sub-sectors, the government has taken initiatives on capacity building and technology transfer schemes. These support schemes focus mainly in improving vocational skills through workplace-based training programs, and continuous improvement (Kaizen) packages which focuses on productivity of these MSEs (MOTI, 1997).

Regardless of these support interventions Hibret (2009) found that the business development services had weaknesses in addressing entrepreneurship and business administration problems of weavers due to lack of preparation, technical knowledge required in existing situation of weavers' and providing less relevant services. In other thesis work, Philipos (2006) pointed out that the number of researches on issues of business development support programs is very few. Moreover, Hibret (2009) recommended that undertaking research is essential to address the problems of the textile sub-sectors through principal participation of operators themselves.

Looking the gap from existing research works, this study therefore, examines the effect of government supports on technology transfer and skill upgrading in enhancing the productivity of Micro and small enterprises engaged in producing textile and leather products.

### **1.3 Basic Research Questions**

1. To what extent does the skill improvement and technology transfer supports assisted micro and small scale enterprises in enhancing their productivity in textile and leather sub-sectors?
2. What are the main barriers of technology transfer and skill improvement to micro and small scale enterprises in textile and leather sub-sectors?
3. To what extent does the skill improvement and technology transfer support services are given sustainably in addressing problems of productivity in the sub-sectors?

## **1.4 Objectives of the Study**

The general objective of this thesis was to assess the effects of government supports in skill improvement and technology transfer to textile and leather sub-sectors on the performance and competitiveness of micro and small businesses.

### **The specific objectives of this research were to:**

- Asses the status of skill improvement and technology transfer supports in improving the productivity of textile and leather enterprises.
- Identify the barriers of technology transfer and skill improvement to micro and small scale enterprises in textile and leather sub-sectors.
- Overview the sustainability of skill improvement and technology transfer support provisions in addressing the problems of productivity in the sub-sectors.
- Identify the challenges of delivering sustainable business development services to MSEs in textile and leather sub-sectors.

## **1.5 Significance of the Study**

This study would help policy makers, business development service facilitators, and other stakeholders to identify and understand how a business development services can be effectively delivered to MSEs. In addition to this, implementing agencies at federal, regional and local levels could benefit from this study as it helps them recognize operational gaps present in the current MSE development programs of the government. This research might also serve as a springboard for further research endeavors. It can also contribute for building theories on government supports to MSEs particularly in technology transfer and skill improvement schemes. Finally, there was no adequate research works on the impact of business development services in MSE sub-sectors. This study, therefore, attempts to address this knowledge gap by addressing business development services issues taking the case of Gullele textile and leather sub-sectors.

## **1.6. Scope and Delimitation of the study**

Micro and small scale enterprise supports in Gulelie Sub city of Addis Ababa City Administration has six major sub-sectors. Textile and leather sub-sectors are one of the six sub-sectors. This thesis work therefore focuses on textile and leather enterprises primarily located in two major centers of Gundish Meda and Addisu Gebeya Clusters. The study focused on analyzing the activities of the government support on technology transfer and skill improvements and its effect on beneficiaries' performance based on study sample responses taken from MSEs and center heads in two clusters.

## **1.7. Definition of Terms**

Cluster: - is geographic concentration of interconnected micro and small enterprises in a particular field.

Government Support:-is to mean micro and small enterprise development interventions on skill improvement and technology transfer schemes.

Kaizen: - which means the philosophy of continuous improvement in working practices and personal efficiency to bring sustainable improvement in productivity of enterprise which has been in the spotlight in recent years by Ethiopian government in MSE development packages.

Micro and Small Enterprises (MSEs):- Micro enterprise is an enterprise that operates with 5 people including the owner and/or their total asset is not exceeding Birr 100,000 (one hundred thousand), while small enterprise is an enterprise that operates with 6-30 persons and/or with a paid up capital of total asset Birr 100,000 (one hundred thousand) and not exceeding Birr 1.5 million (FDRE, 2011).

Productivity: is to mean the improvement in MSE operators output, improved efficiency and reduced wastage. Measurement of productivity in this context is based on workers

observation of own change in their weekly or daily output they made before they receive supports and after they receive supports.

Technology transfer: - is transaction or a process through which technological knowhow ie, knowledge, skill, and new ways of operating is transferred between MSEs and government centers of technology.

### **1.8. Organization of the Study**

This thesis report is organized into five chapters. The first chapter deals with the introduction. Following the introduction, chapter two presents the review of literatures on theoretical and empirical research frameworks. Accordingly, the first section presented business development concepts and theories. Then it reviewed empirical researches on business development services particularly on skill upgrading and technology transfer. The third chapter discussed the research methodology used in the thesis work. The research design includes data sources, sampling techniques, data collection method and method of data analysis. The fourth chapter deals with results and discussions. This section included the presentation of data, analysis and interpretation. The final chapter concludes the study including the summary, conclusion and recommendations.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Theoretical and Conceptual Foundations on Growth of a Firm**

##### **2.1.1 Concepts of Business Development Services**

Studies conducted in developing countries found that MSEs are major contributor of 40-60 per cent of the total output of national economy (Hailu, 2010; Hirity, 2009; Tshifhiwa, 2009). MSEs have remained one of the most important sub-sectors for any nation that contribute significantly to the gross domestic product, create employment and earn foreign currency through export. Thus, the promotion of small and medium enterprises (MSEs) is considered as a prominent move to bring sustainable development. One of the approaches in promotion of micro and small scale enterprises is through offering business development programs.

Miriam in her work of (2010) defines business development service as services that improve the performance of the enterprise through creating access to markets and enhancing its ability to compete. Business development can be understood as a package of conditions providing the elements for the businesses to succeed in a free market economy, where several complementing institutions play the role. In various literatures, business development service is explained as a range of non financial services to business, offered on a formal or informal basis. This includes: training and skill development; technical and managerial assistance; developing, adapting and promoting better technology; assessing markets and giving market support; providing a physical infrastructure and advocating policy.

Before the implementation of business development service, an effective policy framework for MSEs should begin with the identification of real constraints and possible solutions. A



useful way of identifying such constraints is through public-private sub-sectors interaction and dialogue, thus creating an enabling environment and fostering policy coherence. The need for government intervention to assist MSEs is based on the fact that numerous market failures prevent MSEs from building capabilities because they cannot access finance, information, technology and markets Philipos (2006). The MSEs in developing countries apply to a great extent outdated technologies, have been facing tough competition from imported products and the situation may further be worsened in the days to come due to trends in globalization, the widening of trade and reduction of tariff barriers.

### **2.1.2 The Roles of Business Development Services to growth of MSEs**

Various studies undertaken in several countries implied that Business Development Service /BDS/ interventions have significant importance in reducing costs; and improving productivity and competitiveness of businesses. Even though each service has its own relevance in a given business, most BDSs are interlinked and complementary to each other. For example, information service can facilitate or lead to the creation/ diffusion of innovative ideas within and between enterprises which further improve market and non market linkage among and between enterprises.

A research finding undertaken by Miriam (2010) showed that many of the programs in business development have contributed positively to the growth of MSEs. These interventions packages had shown a significant increase in the sales, revenues, and profits of micro and small firms. Networking services can also contribute toward the same, by reducing cost and improving competitiveness and capacity.

In line with the above perspectives Snodgrass (2004) facilitating market linkages, promoting linkages among producers or linkages between producers and distributors, had been positively correlated with improved firms' sales and profits and increasing output. According to McVay (1999), BDS is aimed at increasing MSE sales, or reducing costs so that businesses can grow and become more profitable. This growth and increased

productivity leads to increased income for owners, increased employment for people in the community, and economic growth for other businesses in the same market.

Moreover, various literatures explain innovation as the main ingredient for productivity, competitiveness and other desirable results of business. Innovation improves business performance through increasing both local and external market share and profitability (Snodgrass, 2004). This helps small businesses to take advantages of economies of scale which in turn improve firms' market share. As Pedersen (1997) wrote, collaboration of firms contributes to rapid innovation diffusion through forward and backward linkages.

Moreover, in a study undertaken by Malcolm (2000) on two separate impacts assessment studies, it was found that the trained group had achieved break-even significantly earlier than the untrained ones. Their businesses also had significantly lower capital-output ratios, perhaps because the training had encouraged people with less family resources to enter business.

### **2.1.3 Determinants of Firm's Growth**

According to Gopinath (2012); and Hermelo and Vassolo (2007), the determinants of growth have been put forward by various researchers depending on the discipline of study. In the study of factors that determine firm's growth, researches in the field of psychology focused on the behavior of the entrepreneur, whereas those from the discipline of economics focus on the relation between growth and firm size. The above authors studied the determinants of firm growth in an integrated manner and classified them into three major components: individual, organizational and environmental factors. In order to summarize the determinants of firm's growth from a wide range of perspectives, the review of literature is presented as follows in three dimensions.

#### **2.1.3.1 Individual Factors**

The growth of a firm to a certain extent is a matter of decisions made by the entrepreneur him/her self. According to Boris (2004), the growth of a firm can be determined by

individual factors such as personality traits, growth motivation, individual competencies and personal background of the entrepreneur.

In the works of Hermelo and Vassolo (2007) growth motivation, specific skills and need for achievement were found the most important individual determinants of firm growth. According to the study conducted by these authors, entrepreneur's willingness to grow affects the performance of the firm. The entrepreneur's motivation for success and growth determines the efficient utilization of resources and implementation of strategies to facilitate growth. This is particularly true for small firm owners where motivation and individual competency play an important role in the success of the firm.

According to ILO (2008), small business owners with a high degree of need for achievement are more likely to engage in activities or tasks that take greater responsibility for outcomes than those who have a low degree of need for achievement. Furthermore, Boris (2004) claims that creativity and ability to discover innovative ways are critical factors for the success of small businesses. The dynamic environment requires intelligence and curiosity to seek and acquire new knowledge and it needs innovative thinking to develop new strategies to take advantages of opportunities provided by the constant change.

### **2.1.3.2 Organizational factors**

Organizational factors are found to have the greatest influence on firm growth. These determinants have been discussed in the existing literature in the form of firm attributes, firm specific resources, firm strategies and organizational structure. Based on the firm specific resources financial resources and human capital are the most important resources for small business growth (Mukherjee, 2009). Human capital represents knowledge, skills and experience. This is particularly true for micro and small scale firms since they have constraints in other resources. Their growth is determined by the levels of capability with which firm-specific resources are acquired, organized, and transformed into products and services.

Human capital represents employees' knowledge, skills and experience. At an organizational level, human capital of the total workforce plays critical role for the growth of a firm. According to McGrath (2005), employees are considered as the most important resource for micro and micro enterprises. Knowledge of individuals plays a crucial role in building competitive advantage of a firm. It has been argued that dynamic capability is crucial for small firms to successfully exploit and create new opportunities.

According to Zhou and Wits (2009), financial resources and human capital are the most important issues for small business growth. These authors argued that securing financial resources are particularly important in promoting firm's growth. It is because financial resources can be easily converted into other types of resources. With sufficient financial resources, firms are able to experiment new things, which not only increases their innovation potential but also enables them pursue new growth opportunities.

The resource-based theory is predominantly used to analyze strategic resources that are available to firms. Resources include all assets, capabilities, organizational processes, firm attributes, information and knowledge that are controlled by firms and which enable them to conceive of, and implement strategies that improve efficiency and effectiveness (Ibid).

In line with the above argument Spyros and Martin (2006) stated that the resource-based view of firms' behavior is a source of conceptual inspiration in order to understand knowledge and technology transfer strategies. According to these authors point of view, firms are heterogeneous in their resource endowments and capabilities. Useful strategies enable firms to change or modify the resource endowment and thus improve firms' performance.

### **2.1.3.3. Environmental Factors**

Zhou and Wits (2009) have shown that the business environment varies along several dimensions, such as dynamism, heterogeneity and hostility; and this may largely determine the growth potential of firms. These dimensions are adopted and further developed to

investigate their effects on small firms. Dynamic environment, either market dynamics or technology dynamics, is measured by the level of environmental predictability. It is argued that there are more opportunities for growth when there are changes in society, politics, market and technology. A firm in such an environment with better access to required resources has higher chances to grow.

Hostile environment can create threats to the firm through increased intensity of competition. Competitive intensity thus reduces the growth opportunities for small firms. Heterogeneity indicates the complexity of environment regarding the concentration or dispersion of organizations in the environment. It is argued that small firms which serve niche markets can find growth opportunity with relatively more ease in a heterogeneous market than in a homogeneous one (Ibid).

#### **2.1.4 Determinants of Firm Productivity**

According to Tshifhiwa (2009), productivity is a measure of how well the organization converts inputs by means of the transforming process into outputs. Japanese companies usually measure productivity in terms of labor, such as the number of product units produced per employee labor-hour or the number of employees needed to operate a particular machine. In line with this Kevin (2002) firm productivity measures how much input is needed to produce the firm's output. Most productivity growth comes from existing firms who can add to the ratio of capital per worker and adopt new technology.

In the works of Imonitie and Henry (2004), most productivity growth comes from existing firms who add to the ratio of capital per worker and adopt new technology. These authors found that firms, who adopted new methods to improve their productivity, reduce costs and improve quality. In line with this Kevin (2002) stated that technologies are more likely to be adopted when their benefit for the individual firm is clear, they fit with the firm's processes, and they are simple to operate.

Mukherjee (2009) argued that technology plays an important role in determining the productivity level. The importance of technology to impact competitiveness and sustainable development has been widely accepted phenomenon and economists formally recognize technology as engines of economic growth. Technology is necessary for sharpening competitiveness of local enterprises and strengthening productive capacity, particularly in small- and medium-sized enterprises. This signifies that the level of technology employed determines productivity level in the MSEs.

One of the major determinants of productivity levels for the MSEs is their ability to access inputs and services easily and economically. According to Zhou and Wit (2009) research findings, firms' efficiency largely depends on the optimal use of resources available for production. The nature of efficiency is closely related to the production and technological processes which are the basis of operations of every production company. In line with the above view Tshifhiwa (2009) emphasized that productivity improvement plays an important role in the performance of every business. The relative productivity performance of a company affects its costs, prices, and profitability.

Researches show that variety of factors influence productivity. The key determinants according to Farida (2004) are micro economic in nature, that is, the way in which resources are employed by the firm. Improved technical and other skills are of prime importance for enhancing the productivity of informal sub-sectors activities as well as the quality of the goods and services they produce. Technical skills, together with other types of support (e.g. access to credit, technology, markets and information) are crucially needed to enable entrepreneurs in MSEs to diversify the product range and find niches markets.

### **2.1.5 Overview of Technology Transfer and Models**

The term technology transfer can be defined as the process of movement of technology from one entity to another. The transfer could be successful if the receiving entity, the transferee, can effectively utilize the technology and eventually assimilate it in its internal operation process. According to Heqiang (1999) the concept of technology transfer is

broader than the acquisition of physical assets. The exchange of technology and know-how between firms, in fact, should contain the exchange of both resources and competence of organizations. In line with the above issues Mutai (2011) gave a broader definition of technology transfer where he stated that technology transfer is the movement of knowledge, skill, organizational values and capital from the point of generation to the point of application.

Technology transfer generic model delineates seven elements that can influence the planning, implementation, and eventual success of any technology transfer endeavors. These are the transferor, the transferee, the technology that is being transferred, the transfer mechanism chosen to transfer the technology, the transferee environment which is the immediate set of conditions, in which the transferee is operating (Phan and Siegel, 2006).

The transferee environment is the immediate set of conditions under which the transferee is operating. Attributes of the transferee environment that can influence the absorptive capacity of the transferee include physical and organizational infrastructure, skills availability, attitude and commitment to the transfer project, technological status, business orientation, economic status, and stability (Mutai, 2011). The greater environment that surrounds both the transferor and the transferee creates influence the transfer process. Phan and Siegel (2006) argue that effective technology transfer would be determined by the extent to which the transferor and transferee manage the barriers that impede transfer and strengthen initiatives that facilitate it.

According to Heqiang (1999) review of Gibson's and Slimor's Model, technology transfer model can be seen from the perspective of researchers and users levels of involvement. The underlying theories of this model focus on organization and communication theories. This model proposes that technology transfer consists of three levels of involvement: technology development, technology acceptance, and technology application. This model explains the levels of technology transfer involvements and integrates the activities involved in the traditional models.

The model presented by Phan and Siegel (2006) emphasizes on the importance of quality of research and competitive market pressure in achieving technology transfer. Technology acceptance level indicates more involvement of technology transfer. During this level the technology developer is responsible for making certain that the technology is made available to the receptors that can understand and potentially use the technology. This level of involvement relates to the dissemination model: where the concentration is on disseminating innovations to individual users. Technology application level is the most involved level of technology transfer. Technology application includes commercializing the use of technology in the marketplace and other application such as intra-firm processes.



## **2.2 Empirical Researches on Technology Transfer and Skill Improvement**

The empirical literature is increasingly tending to lend support to the view that international trade and foregoing direct investment provide means by which technologies can be spread internationally. Recent studies have shown that technology transfer can bring cross-country differences in per capita incomes (Patrickm, 2010; Romijn, 2000). These authors found that imports are particularly important channel of technology transfer, although the volume of transfer varies by country, being greater in countries with stronger absorptive capacities.

### **2.2.1 Impact of Technology Transfer and Skill Improvement on MSEs Productivity**

Spyros and Martin (2006) consistent with (Patrickm, 2010; Romijn, 2000) research findings; they found positive impact on general performance of firms based on firms' absorptive capacity of knowledge and technology transfer activities. When it comes to the specific strategies, it is expected that firm's with a greater absorptive capacity apply strategies that require more intensive forms of knowledge and technology transfer than firms with lower absorptive capacities. The same study also confirmed that the technology transfer to MSEs is largely influenced by the quality of their absorptive capacity and technical effectiveness. The technical effectiveness of the transfer process depends on factors such as technical skills of employees, the technical and management capabilities of acquiring firms, access to adequate finance and accommodating government policies.

### **2.2.2 Enhancement of Indigenous Technology and Firm Level Competitiveness**

According to Romijn (2001), the central issue in technology assistance projects is the issue of bringing sustained improvement in the competitive position of small producers through creating technological capability on an ongoing basis. The implication for the design of technological support projects is that they initiate and facilitate a process of change which

creates opportunities for producers to engage in continuous development of their technological knowledge, skills and organization (Beth, 2003).

A research finding by Phan and Siegel (2006) showed that the poor technological capacity of the firms, particularly in small-scale sub-sectors, has directly contributed to low productivity. According to these authors, many countries break this technological barrier mainly through imports of large-scale technologies. These attempts bypassed the small-scale sub-sectors of the industry which continued to rely on traditional technologies, with little innovation or incremental upgrading of existing production facilities.

Christian (2011) in his study of indigenous technology diffusion forwards that technical support is needed to initiate and facilitate a process of change which creates opportunities for small producers to engage in continuous development of their technological knowledge, skills and capabilities of local firm.

Other ways in which indigenous technology development projects can help producers to learn is through creating an information-rich environment for small firms, facilitating access to knowledge and information that can form inputs into the learning process (Patrick, 2010). For example, when imported technology is introduced in Kenya, it is first used in large firms or high-income homes. As the characteristics of the imported technology become familiar to the local micro and small enterprises, most of micro enterprises could easily use to operate in the informal sub-sectors. Adaptation of imported technology to the local environment in the informal sub-sectors is supposed to address some of these constraints, so that the imported technology can be easily adopted and assimilated.

### **2.2.3 Barriers of Technology Transfer to MSEs**

This section focuses on review of the barriers that prevent micro and small businesses in transferring and adopting technology. Based on the work of Rashed (2003), problems faced by MSEs in technology transfer may be seen from three categories namely, technology transfer process issues, corporate capability issues, and operating environment.

According to Chandra (2004), the success of technology transfer depends largely on the decisions made before the acquisition of the technology in need. A crucial issue often ignored by MSEs management is the lack of provision of incentive systems for learning and assimilating new technologies. Similarly, Bharati and Chaudhury (2006) have recorded their observations on the lack of motivational policies for professionals to engage in the technology transfer process of micro and small businesses.

Romijn (2000) explained that the barriers encountered in the process of technology transfer were lack of business skills among entrepreneurs, lack of technological experts within the enterprises due to limited size of operations, lack of access to funds, limited resources for research and development in the enterprises and lack of formal links between academia and businesses to assist the sub-sectors upgrade their skills.

According to Spyros and Martin (2006), the main factors that retard technology transfer process in small business were lack of information about new and appropriate technologies, lack of technology suppliers catering to the small-scale sub-sectors; and inadequate industrial extension support services to the sub-sectors. In line with Spyros and Martin findings Farida (2004) suggest that the absence of institutions supporting the technological development of MSEs retarded the development of indigenous technologies from flourishing. Similarly, according Patrick (2010) survey of MSE sub-sectors in Kenya the major constraint that contribute to low technological development was limited capacity of MSE.

Rashed (2003) pointed out that cultural barriers were the greatest challenge to the successful transfer of technology from one setting to the other. Tradition, religion, historical habits, and personal aspirations for a new life were important factors facing technology digestion and absorption. According to Rashed it is essential for government authorities overseeing the import of technology to ensure that the basic technology be supplied is appropriately defined, that adequate guarantees of its effectiveness are included, that access to technological advances and new technology is facilitated.

The enterprises or institutions in developing countries, lack information about sources of technology, and do not possess the means to assess and make a choice among alternative technologies, to determine the appropriateness of the technology for their needs, and negotiate fair and reasonable terms for its acquisition. As a result, prospective technology acquirers find that their bargaining position is relatively weak.

#### **2.2.4 Factors for the Success of Technology Transfer**

The literature regarding the success of technology transfer is extensive. The majority of the research compiled is concerned with diffusion, modification, and improvement of the existing technology. Measuring the success of technology transfer could be approached from a variety of ways. The simplest measurement was the ability of the recipient firm to operate the technology (Christian, 2011).

According to Rashed (2003) cultural barriers were the greatest challenge to the successful transfer of technology. For successful technology transfer, by analyzing the culture of the host nation, the donor would be able to identify factors that motivate for higher efficiency and production from the workforce, thus enhancing the success of technology transfer. The social environment of the technology recipient includes economic, political, and cultural characteristics which would have significant impact on the acceptance of the technology.

The study conducted by Alessandro (1998) shows that from a firm's point of view it is worth reconsidering the type of knowledge and technology transfer strategy to be applied in order to transfer efficiently publicly available knowledge. Thus, policy measures that support firm efforts in this direction help them also to apply more successful technology transfer strategies. The use of locally available raw materials, coupled with local skills for the design and fabrication of equipment and machinery have proved to be essential for sustainability.

### **2.2.5. Training and Performance Improvement in Micro and Small Scale Enterprises**

The contribution of skills improvement to business performance is a subject area that has long interested researchers, academicians and those developing government labour market policies. In today's knowledge-based economies, firm-level investments in training and skills upgrading are believed to be one of the keys to growth. This is true for large and small firms alike, whose performance is increasingly dependent on a managerial structure, which should ideally be decentralized, participative and adaptive.

Immonite and Henry (2004) found connections between more training and higher labour productivity across a number of UK sub-sectors. Similarly a recent phenomenon in the training sub-sectors in Kenya is 'training for production', which could be more aptly described as 'product-based training'. According to this training, it was found that following such training sharpness in quality of processes performed by the employees were improved. The training programs helped in making acquaintance of employees with more advance technology and attaining better competencies and skills in order to handle the functions and basics of newly introduced technical equipments. Similarly, Douglas (2009) research work implied that a more highly skilled workforce is associated with greater productivity and also strong evidence that the provision of training and development is associated with a range of business benefits.

### **2.2.6 An Overview of Empirical Researches on MSE Supports in Ethiopia**

Micro & Small Enterprise Development Program in Ethiopia meaningfully has been given due attention by government. Since the country has financial constraints, government support to SMEs depends on the principle of priority of the sector to the economy. Accordingly priority sectors are selected for maximum government support. These priority sectors are the manufacturing sector: metal & engineering, textile and garment, leather products, wood work products, agro processing and handicraft products. In the construction sector: contractor, building material production, cobble stone production, traditional way of mining extraction (Endalkachew, 2008) and (Solomon, 2007).

According to (Gebrehiwot and Wolday, 2006), MSEs owners mainly depend on their own resources and experiences from their families and friends. Their study indicated that MSEs Owners came from different social back grounds, with varying degrees of education, little or no business experience and with little or no prior training.

Originally the handloom machinery is traditionally designed by the weavers themselves. This traditional handloom is not convenient for weavers and it affects their productivity, health and safety. According to (Hirity, 2009 and Hailu, 2010), substantial improvement made with the loom by the changing the wood frame to metal and improving the shuttling work. These improvements in the machine help the weavers to produce safely and basically increase their productivity & quality of their products.

On the other hand according to Hailu (2010), training could be classified as technical and business management trainings in the context of handloom weaving business. So with regard to the technical training, the weavers got it informally from their ancestors and/ or informal employers. Similarly Hailu identified that weavers were also provided skill upgrading trainings on design, color matching and weaving with the improved handloom sponsored and organized by different stakeholders. Few trainings revolving around product development and marketing were also given during the cluster development intervention. However, the positive initiatives taken in supporting MSEs through training, the intervention were very short to help them acquire the knowledge and skill they desire. As a result, the benefits from the training were very minimal.

# **CHAPTER THREE**

## **RESEARCH DESIGN AND METHODOLOGY**

### **3.1 Research Design**

To achieve the intended purpose of this study, descriptive survey research method was employed. The main reason for using descriptive research was the method's fitness in portraying the productivity of micro and small scale enterprises following the technology transfer and skill improvement support schemes. The research mainly was designed to describe the range of supports given in technology transfer and skill improvements, challenges faced in offering this supports and corresponding achievements recorded by micro and small scale enterprises. Under descriptive research methods, quantitative data collection techniques were designed. Qualitative data were also used to support the quantitative data collection designs.

Both quantitative and qualitative techniques were employed to collect data from micro and small enterprise cooperatives on their performance as a result of government support service programs, i.e. to comparing their current performance with previous performance in the absence of support program in their own view.

### **3.2 Study Population and Sampling Techniques**

The study populations for this study were micro and small enterprises engaged in producing textile and leather goods in Gulele sub city. These study populations are located in Addisu Gebaya and Gundish Meda cluster centers. In these two clusters there are a total of Twelve G+4 buildings offered by the government micro and small scale enterprises organized in cooperatives. Due to the availability of conducive environment, the majority of textile and leather micro and small scale operators are settled in these two clusters. Most of the enterprises in these clusters were engaged in weaving /handloom/, tailoring, sweater making, dyeing, preparing traditional cloths, and leather good making.

The researcher used systematic random sampling technique to select participants for the study. The researcher arrived at the Office of Micro and Small Scale Enterprise Development of Gulele Sub City. Then the researcher discussed with experts facilitating and managing micro enterprise development programs in textile and leather sub-sectors on the purpose of the research and asked their cooperation in getting relevant information for the study. The sampling frame for MSEs in textile and leather sub-sectors was received.

The total number of textile MSE cooperatives, actively working in Gundish Meda and Adisu Gebaye cluster, were 231. Taking in to account the homogeneity of study population, the researcher decided to take 75 samples for the study. From 231 MSE cooperatives, 75 cooperatives were selected as a source of data. To identify these samples, the researcher divided 231 to 75 and the class interval was determined. For the first class interval, through random method the 4<sup>th</sup> item identified and then entire sample selection continued for every forth item of sampling frame till the sample size reaches 75 by using systematic random sampling techniques. Though the researcher had selected and distributed 75 questionnaires, only 66 of them involved in this research as a source of data. The number of MSEs cooperatives in leather sub-sectors were 32. Since the size of the population in the leather sub-sectors was small and manageable, all of the 32 cooperatives were involved in the study. Similarly to the cases in textile enterprises, some of the samples selected for the study in leather enterprises did not fill and return questionnaires appropriately, rather 27 of them involved in giving response properly.

The other respondents who participated in the research were center heads in Gundish Meda and Addisu Gebaya. These subjects were selected for the study by using purposive sampling technique based on their rich knowledge and experience on government support interventions and its effect on productivity of MSEs in textile and leather centers they were represented.



### **3.3 Types of Data and Instruments of Data Collection**

The sources of information for this research were both secondary and primary data sources. The main secondary sources of information were reports and empirical/statistical figures organized by Gulelie sub city and micro and small scale enterprise. These sources were used to get an overview of the situation of MSE support interventions in textile and leather sub-sectors. The primary sources for the study were data gathered from representatives of MSE cooperatives through questionnaires and interviews on government supports and overall business development interventions.

Questionnaires were developed based on the understanding of theoretical and empirical researches reviewed. To improve the standard of the questionnaire, it was submitted for experts working on micro enterprise development programs in Gulelie Sub City. Valuable comments were given on clarity of concepts raised on the questionnaire. Moreover, the thesis advisor provided critical comments on the mode of questions. Taking all these comments, the final questionnaire was prepared. The questions were divided in sections. Some questions of were of Likert scale type.

Structured interview was held with center heads in Gundish Meda and Addisu Gebaya. This interview was held with the assumption of capturing further data on the views of business development services program in assisting them in operating their business activities.

### **3.4 Procedures of Data Collection**

First of all, the researcher prepared the questionnaire and checked its clarity through forwarding to experts working in micro enterprise development programs. Useful comments were obtained on the content of each question. These comments were incorporated to upgrade the quality of data gathering instrument. Following the finalization of data gathering instrument, the researcher identified samples selected as a source of data. Before distributing the questionnaire, the willingness of the study participants was confirmed. Then the questionnaires were distributed and 3-5 minute orientation was given

for the study participants on the purpose of the questionnaire and how to respond to the questions. The questionnaires were filled by taking to their home in their free time. The collection of the distributed questionnaires was made within 2-3 days from the date of distribution. During collection of the questionnaires, the researcher had checked on questionnaires at a glance to check that the questions were filled accordingly.

With regard to the interview, the subjects for the study were selected purposefully by the recommendation of experts in Gulele Sub city working on micro enterprise development programs. The researcher took their phone number from the sub city and called to arrange appropriate time for interviewing. A schedule was arranged and the interview was held accordingly keeping the schedules.

### **3.5 Data Analysis**

Following the collection of distributed questionnaires, responses were edited and codes were given for each questionnaire. Then each coded response was tallied, organized and presented in tables. The analysis of data was made by using frequencies, percentages and mean values.

Once the analyses of the questionnaire have been completed, the data obtained from the interview was transcribed, analyzed and interpreted along with the main themes of quantitative analysis.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

This chapter deals with the presentation, analysis and interpretation of data obtained from respondents at Gundish Meda and Adissu Gebeya through questionnaires and interviews. As described in the methodology part, the data were taken from cooperatives in textile and leather sub-sectors. The analysis was presented in different sections. The aim of this section was to answer the basic research questions raised on the contributions of government supports in enhancing the productivity of firms engaged in textile and leather MSE sub-sectors.

Out of the total 75 questionnaires distributed to cooperatives in textile micro and small scale enterprises, 66 (88%) of the questionnaires were properly filled and returned. Moreover, 32 questionnaires were also distributed to leather micro and small scale enterprises, 27 (84%) of the questionnaires were properly responded and returned. Beyond this, interview data from center heads of Addisu Gebaya and Gundish Meda clusters were consumed in this thesis. Therefore, the presentation, analysis and interpretation of data were made based on the data obtained from the above sources.

## 4.1 Characteristics of Respondents

Table 4.1 below presents the characteristics of sample respondents involved in the research.

**Table 4.1: Characteristics of respondents**

Year of formation		Responses		Educational qualification		Responses	
		No	%			No	%
Before 1995	textile	0	0	Non formal education	textile	6	6.5
	Leather	0	0		Leather	2	2.1
1996-2000	textile	32	34.4	Grade 6 complete	textile	9	9.7
	Leather	11	11.8		Leather	6	6.5
2001-2004	textile	34	36.6	Grade 8 complete	textile	16	17.2
	Leather	16	17.2		Leather	5	5.4
Gender		No	%	10/12 complete	textile	20	21.5
Male	textile	43	44.8		Leather	11	11.8
	Leather	21	22.6	TVET training	textile	13	14.0
Female	textile	23	24.7		Leather	3	3.2
	Leather	6	6.5	First degree	textile	2	2.1
Total		93	100.0		Leather	0	0.0

Source: Own Survey

As shown in the table 4.1, the period of establishment of enterprises involved in the study: 53.8% of them were established between 2001-2004 E.C, 46% of them were established between 1996-2000 E.C and no enterprise was found in the study established before 1996. Concerning sex of respondents 67% of the respondents were males and the rest 31% of them were females.

The survey shows that the educational backgrounds of most of the respondents were below the TVET level. Despite their low academic records as shown in table 4.1, most of the

respondents were able to read and write as they had passed either through elementary or high school programs. This might give them an opportunity to successfully involve in skill upgrading training to enhance their competency and productivity.

## 4.2 Main Problems of MSEs in Textile and Leather Sub-sectors.

**Table 4.2: Main Problems of Textile and Leather MSEs**

The main problems of MSEs (Multiple responses were possible)	Textile and garment		Leather goods producers	
	No	%	No	%
Market problems	32	48.5	13	48.1
Lack of business skills	26	28.0	4	14.8
Lack of adequate supply of inputs	37	56.1	20	74.1
Lack of working place	8	12.1	8	29.6
Lack of technical skills	17	25.8	16	59.3
Lack of finance/credit facilities	31	47.0	14	51.9

Source: Own Survey

In order to identify the main problems of textile and leather sub-sectors in the study area, respondents were asked to mention problems their cooperative/firm had been facing since establishment. Based on this as shown in the above table, 56% of respondents from textile sub-sectors and 74% of the respondents in leather sub-sectors mentioned that lack of input supply was their top problem. In line with this, lack of market problem was second main problem for textile sub-sectors. On the other hand, 59% of respondents from leather sub-sectors showed that deficiency of technical skill was the second main problem they have been facing. Moreover, both textile and leather sub-sectors respondents mentioned that lack of finance as their third main problem. Similarly, the interview data taken from head of centers indicate that financial constraints were the common problem of most micro and small enterprises. To quote it “almost all MSEs have financial limitations”. This phrase

indicates the magnitude of financial problem for micro and small scale enterprises under the study.

The situation of resource constraint particularly in financing undoubtedly affects the performance of micro enterprises. For this reason to survive and to be competitive, firms need to secure financial resources. It is because financial resources can be easily converted into other types of resources such as improved production tools that increase innovation potential and pursue growth opportunities.

### **4.3. Business Development Services taken by Firms**

Business development service includes all types of SME support services, including training, consulting, technical assistance, technology transfer, marketing, physical infrastructure, policy advocacy and other related supports. The responsibility to give assistance to MSEs rests upon a wide range of players. In line with this, to identify which of the business development services were provided to textile and leather sub-sectors, a question was raised to participants of the study. Based on this, their responses were organized and presented in the following table.

**Table 4.3: Business Developments Services taken by Textile and Leather MSEs**

Type of BDS offered and used by MSEs /More than one responses were possible/	Textile and garment		Leather goods producers	
	No	%	No	%
Market facilitation	24	36.4	3	11.1
Linking with suppliers of key inputs	11	16.7	1	3.7
Facilitation of working place	45	68.2	23	85.2
Technical skill upgrading	41	62.1	11	40.7
Supplying appropriate technologies	19	28.8	1	3.7
Access to credit facilities	23	34.8	10	37.0
Information and consultancy	20	30.3	5	18.5

Source: Own Survey

As shown in table 4.3, 68% of respondents from textile enterprises and 85% respondents from leather enterprises were already provided with working place and this issue would no longer be their problem. This response shows that the government has made a big stride in solving the problem of working place for most enterprises organized in cooperatives. According to the discussion with head of centers, lack of sufficient and appropriate working place was the most critical problem of individual micro and small scale workers before the problem was solved through government action of offering new buildings. The head of cluster center in Gundish Meda described that almost all operators were using rented rooms of residential houses. These houses were not appropriate for working and did not provide facilities required for operation. According to their statement “not only that, they were forced to pay monthly fees depending on the electrical driven machines and equipments they used”. Moreover, they stated that the water supply and sanitation facilities were extremely poor. Eliminating all such problems, currently the new working place had created better space for manufacturing as well as storing raw materials and finished products.

In connection with business development issues, respondents were asked if they had received skill upgrading training to improve their work productivity. Based on this, 62% of textile respondent and 40% of respondents in leather enterprises indicated that they benefited from such kind of skill upgrading training opportunities. These figures imply that both sub-sectors have utilized technical upgrading services despite the differences in the proportion to accessibility of services. It shows textile sub-sectors was relatively advantageous in accessing to training supports than the leather sub-sectors. The prevalence of such kind of circumstances in leather industry contradicts with the emphasis given in growth and transformation plan. Therefore, concerted effort is needed in mobilizing concerned stakeholders in capacity building initiatives taken and implemented by the government.

On the other hand, access to key inputs being their critical problem was not solved. As the responses in table 4.3 shows, both enterprises did not benefit from getting linkage with suppliers of key inputs. Access to key inputs remained the problem of both sub-sectors as the service intervention was minimal. In line with this, the head of Gundish Meda center stated that leather goods producers encounter problems of leather supply in desired quantity. The heads of centers believed that it is absolutely impossible to imagine improvement in the quality of products without the availability of affordable raw materials.

The center head further described the difficulty of getting leathers of the right color. In effect such kinds of problems diminish the variety of product features that could have been produced.

As shown in table 4.3, question was raised whether the enterprises had got access to credit for financing their business. Accordingly, the responses to credit facilities were not as such encouraging. Only 35% of respondents in textile cooperatives and 37% of respondents in leather cooperatives had got access to credit services. This implies that access to credit was a limited intervention which did not involve most of the enterprises.



## 4.4 Main Sources of Skill Development to MSEs

**Table 4.4 Sources of Skill Development**

What were the main sources of skill development for you and others working with you?  /More than one responses were possible/	Textile and garment		Leather goods producers	
	No	%	No	%
On job training	18	27.3	3	11.1
Personal work experience	45	68.2	22	81.5
Government Training Centers	29	43.9	16	59.3
Experience from clusters	12	18.2	2	7.4
Technology transfer institutions	7	10.6	3	11.1
Pear to pear learning	32	48.5	8	29.6

Source: Own Survey

As shown in table 4.4, the top three common forms of skill upgrading for textile enterprises were personal work experience (68%), pear to pear learning (49%) and government training centers (44%). Similarly, the main sources of skill upgrading in leather sub-sectors were the same except differences in percentage coverage. The responses indicate that the arrangement of working place for members of cooperatives had created a conducive environment to learn from each other. Similarly, based on the interview with center head, it was stated that “working together in one floor improved the interaction among members to share knowledge and skill”. According to the center head explanation, these factors had contributed to improve their product quality, design, and size of production.

## 4.5. Skill Upgrading Training Opportunities by the Government

According to the capacity building strategy of MSEs, the objectives of skill upgrading training was to make micro and small scale operators use improved technology and increase their productivity. The skill upgrading training in textile and garment sub-sectors

as identified in the capacity building training manual were weaving, painting and printing, textile knitting, tailoring (pattern making, design making for fashions), making of sweaters and the like. Similarly in leather sub-sectors the training areas were making shoe designs, shoe pattern making and cutting, finishing a shoe product, stitching, and use of adhesives and attaching soles and other leather tailor works.

Based on the capacity building manual and MSE strategy, these training were expected to bring efficiency, increased productivity, quality control and better outlook of marketability. Based on this notion, questions were raised to participants of the study. Their response is presented in the following table.

**Table 4.5 Access to Skill Upgrading Training Opportunities from Government**

Items	Responses	Textile and garment		Leather goods producers	
		No	%	No	%
Did you receive technical skill upgrading opportunities from the government?	Yes	46	69.7	16	59.3
	No	20	30.3	11	40.7
	Total	66	100.0	27	100.0
What is your overall assessment of the adequacy of skill upgrading trainings in terms of addressing the skill gaps you faced?	Adequate	16	34.8	2	12.5
	Inadequate	20	43.5	13	81.3
	undecided	10	21.7	1	6.2
	Total	46	100	16	100.0

Source: Own Survey

In order to assess the role of skill upgrading training provided to MSEs, specific question was raised whether firms have got training opportunities from the government or not. Based on this as shown in table 4.5, 70% of responses from textile and 59% of responses from leather sub-sectors show, they were advantageous to the training opportunities. On the other hand, 30% of responses from textile and 41% of responses from leather sub-sectors

show; they did not get access to skill upgrading opportunities from government training programs. These responses imply that still considerably significant numbers of firms were not able to get benefit from training service. This shows that the government business development interventions particularly in skill upgrading were not easily available to micro and small scale enterprises. The low educational level of the operators in the workforce makes skill upgrading very essential. This skill upgrading training gives operators in MSE necessary skills in absorbing and mastering the technology utilization and transfer process.

In line with the accessibility of skill upgrading training programs from the government, a question was raised to estimate the adequacy of training in filling skill gaps of workers in both sub-sectors. Based on this question, 44% of respondents in textile sub-sectors and 81% of respondents from leather sub-sectors replied that the training was not adequate in filling the skill gap.

The above responses show that the deficiency was more emphasized in leather sub-sectors than textile sub-sectors. Despite these differences in questionnaire responses, the qualitative information obtained from center heads show that there is a serious skill upgrading training need in textile as well as leather goods producing micro enterprises. To quote it “some of the trainees who participated in the training were not satisfied with the adequacy as pace of the training was too fast and time allotted was not sufficient”.

**Table 4. 6 The Contribution of Skill Upgrading Trainings**

If you have got access to government provided skills improvement trainings, indicate the benefits of the training to your firm.		Strongly agree		Agree		Somewhat agree		Disagree		Strongly disagree	
		No	%	No	%	No	%	No	%	No	%
Improving product quality	textile	21	45.7	10	21.7	13	28.3	2	4.3	0	0
	leather	3	18.8	5	31.3	7	43.8	1	6.2	0	0
Waste minimization	textile	10	21.7	12	26.1	21	26.1	3	6.5	0	0
	leather	3	18.8	8	50.0	4	25.0	0	0	0	0
Introduce new working methods in the firm	textile	11	23.9	11	23.9	17	37.0	7	15.2	0	0
	leather	3	18.8	7	43.8	6	37.5	0	0	0	0
Increasing Labor productivity	textile	9	19.6	22	47.8	11	23.9	4	8.7	1	2.2
	leather	2	12.5	9	56.3	4	25.0	1	6.3	0	0

Source: Own Survey

In line with the discussion in table 4.6, respondents who replied that the skill upgrading training was adequate in filling the skill gap, they were requested to respond to the benefit of the training in relation to product quality improvement, waste minimization, introduction of new methods of doing and improvements in labor productivity. Based on this, most of the respondents who got the skill upgrading training acknowledged that the training had brought positive outcomes in terms enabling them improve product quality, minimizing waste, introducing new methods of doing and increase their productivity. Similarly, the discussion with centers heads also show that the intervention on short-term training on skill improvement has resulted in improvement of the business situation of the operators. The center head describing his observation on positive improvements in tailors said that “they have got knowledge on cutting large volumes in shorter time. They can now use their tailor machine in a quick way than before”. During the discussion with head of the centers, they

witnessed that the operators who benefitted from the training, despite limited accessibility and constraints of time, had shown qualitative and quantitative improvements on outputs. The positive effect of skill improvement training on the productivity of MSEs supports the findings of Malcolm (2000) studies which was made on impacts assessment of training.

#### **4.6 Government Support on Technology Transfer**

Technology transfer is considered as one of the ingredients for the development of technological capabilities of micro and small scale enterprises to make them more productive. In this section the effects of government support with regard to technology transfer and its relation with productivity of firms is discussed. The responses to questions is organized and presented in the following table.

**Table 4.7 Technology Transfer**

Items	Responses	Textile and garment		Leather goods producers	
		No	%	No	%
What is the type of technology your firm currently using?	Traditional Technology	18	27.3	10	37.1
	Modern Technology	13	19.7	5	18.5
	Locally upgraded technology	35	53.0	12	44.4
Did you have linkage with technology transferring centers established by the government?	Yes	29	43.9	16	59.3
	No	37	56.1	11	40.7
	Total	66	100	27	100
How often has your firm (SME) been involved in technology transfer?	Not yet	37	56.1	10	37.0
	Once	25	37.9	16	59.3
	2-3 times	4	6.0	1	3.7
Does the new technology transferred to your firm positively impacted on your productivity?	Yes	25	86.2	15	93.7
	No	4	13.8	01	6.3
	Total	29	100	16	100

Source: Own Survey

According to table 4.7, 27% of textile cooperatives and 37% of respondents from leather cooperatives were using traditional technology; 20% of textile cooperatives and 37% of respondents from leather cooperatives were using modern technology; and the remaining 53% of textile cooperatives and 44% of respondents from leather cooperatives were using locally upgraded technology. The use of locally upgraded technology by large number of operators in the sub-sectors creates conducive environment for technology transfer process. This situation matches with the research works of Romijn (2000) held in Kenya. Accordingly his study implied that use of imported technology is difficult to MSEs before

adapted to the local condition by large enterprise. This was because; the characteristics of the imported technology become familiar to the local micro and small enterprises.

In line with this 44% of textile cooperatives and 59% of respondents from leather cooperatives mentioned that their cooperative have linkage with technology transferring institutions established by the government. On the other hand, the remaining 56% of textile respondents and 41% of respondents from leather cooperatives replied that they did not have link with technology transfer centers established by the government. These responses imply that technology transfer centers were not working closely with MSEs. The responses on the frequency of firm's involvement in technology transfer strengthen the above argument further. Based on this, 56% of responses from textile cooperatives and 37% of responses from leather cooperatives show that firms did not engage in technology transfer activities. On the other hand, 38% of responses from textile cooperatives and 59% of the responses in leather cooperatives show that their firms engaged only in one time technology transfer activity. This response also support the argument that the government technology transfer centers were not in a position to realize the mission of transferring technologies to MSEs through frequent contacts support in various modalities.

In connection to technology transfer issues, those who have transferred technology to their cooperative were asked to indicate the impact of transferred technology to their firm in enhancing their productivity. Based on this, most of the respondents in both cooperatives acknowledged that the transferred technology has positively improved their productivity. Only 14% of textile and 6% of leather cooperative respondents did not bring improvement in their productivity from use of technologies offered by technology transfer centers. This response gives a green light for policy and decision makers at top level concerning technology transfer that if worked with due emphasis on technology transfer, a lot can be done to improve the productivity of MSE sub-sectors.

**Table 4.8 Benefits of Technology Transfer**

If the technology transfer has positively impacted on your firm, how do you rate its effect on your productivity improvement?		Strongly Agree		Agree		Somewhat Agree		Disagree		Strongly Disagree	
		No	%	No	%	No	%	No	%	No	%
Cost saving	textile	20	69.0	2	6.9	6	20.7	1	3.4	0	0
	leather	4	25.0	6	37.5	5	31.3	1	6.3	0	0
Improved product quality	textile	8	27.6	12	41.4	8	27.6	1	3.4	0	0
	leather	4	25	7	43.8	4	25	1	6.3	0	0
Improved market acceptance	textile	11	37.9	6	20.7	10	34.5	2	6.9	0	0
	Leather	6	37.5	0	0.0	10	62.5	0	0	0	0
Production volume increased	textile	10	34.5	8	27.6	8	27.6	3	10.3	0	0
	leather	3	18.8	5	31.3	5	31.3	3	18.8	0	0
Overall labor productivity improved	textile	9	31.3	11	37.9	5	17.2	3	10.3	1	3.4
	leather	4	25.0	8	50.0	3	18.8	1	6.3	0	0

According to the responses in table 4.8, users of transferred technology to their firm found that the technology have impacted positively on many issues raised on the questionnaire. The responses confirm that the technology assisted their cooperative mainly in saving costs, improving product quality, increasing production volume and raising relatively on overall labor productivity.

In line with the above responses, the interview data also confirm the same. The head of centers confirmed that “almost all operators believe that technology transfer adds value in their productivity if further financial supports are given to them for installation of



modernize technology”. They further stated that some of the operators who got improved technology have increased the quality of their products. As the center head of Gundish Meda stated “because of using improved technology in weaving sub-sectors, the demand of their product has improved”. This implies that using improved appropriate technology in small-scale enterprises can produce a more valuable and competitive products.

In addition to the analysis of Own Survey secondary data was used for the study, accordingly the average capital of the enterprises taken for the study purpose were raised from 11,156.29 Birr to 20,742.38 Birr. The progress on capital size of these firms under the study shows that firms were making profits and portion of these profits were retained or efforts were made to raise additional capital. This finding conform to the works of Mukherjee (2009), Kevin (2002); and Zhou and Wit (2009). The use of technology appropriate to the need of micro and small enterprises plays an important role on the productivity of their operation. This is because use of technology is necessary for sharpening competitiveness and strengthens productive capacity. This signifies that the level of technology employed determines productivity level in the MSEs.

## 4.7 Barriers of Technology Transfer

**Table 4.9 Barriers of Technology Transfer**

The main berries in the process of technology transfer were:		Strongly agree		Agree		Somewhat agree		Disagree		Strongly disagree	
		No	%	No	%	No	%	No	%	No	%
Low technical skill in utilizing the technology	textile	35	53.0	11	16.7	15	22.7	4	6.1	1	1.5
	leather	10	37.0	7	25.9	9	33.3	1	3.7	0	0
High cost of technologies	textile	43	65.2	14	21.2	3	11.1	4	6.1	2	3.0
	leather	15	55.6	10	37.0	0	0.0	2	7.4	0	0.0
Lack of finance for acquiring technologies	textile	40	60.6	16	24.2	9	13.6	0	0	1	1.5
	leather	17	63.0	8	29.6	2	7.4	0	0	0	0
Difficulty of integration of new technology with existing one	textile	26	39.4	16	24.2	20	30.3	3	11.1	1	0
	leather	9	33.3	12	44.4	5	18.5	1	3.7	0	0
Lack of organizational leadership and support for doing technology transfer.	textile	20	30.3	17	25.8	16	24.2	11	16.7	2	3.0
	leather	10	37.0	14	51.9	3	11.1	0	0	0	0
Cultural barriers	textile	21	31.8	12	18.2	12	18.2	9	13.6	12	18.2
	leather	10	37.0	2	7.4	9	33.3	4	14.8	3	11.1

Source: Own Survey

Respondents selected for the study purpose from textile and leather goods producing enterprises were asked to indicate the challenges in technology transfer process. Based on this, 85% of respondents from textile sub-sectors 93% of respondents in leather sub-sectors

indicated that high cost of technologies was their primary problem. The most crucial barrier for MSEs in choosing appropriate technology was the high cost of acquisition and installation of technology. The other obstacle according to 85% of responses in textile sub-sectors and 92% of responses in leather goods sub-sectors is the difficulty of raising finance for procuring the technology for their firms. The act of technology transfer is an area where lots of investment is needed because it requires adequate infrastructure. The above responses imply that difficulties in obtaining finance were more pronounced when it comes to obtaining financing for technology acquisition and transfer process. This situation necessitates government and other stakeholders support in addressing financial constraints in improving credit accessibility and subsidizing appropriate technology supplies through various modes.

Moreover, as the figures in table 4.9 indicate, low technical skill in utilizing the technology was also one of the factors that impede the technology transfer process. This analysis supports the research findings reviewed in the literature section on the works of Romijn (2000). Studies conducted in the other countries indicate similarly, lack of technically skill people to handle and maintain the technology transfer remains a challenge for micro and small scale enterprises. As the educational level was low and most of them joined the enterprises without any technical training, and whatever they learn was from the colleagues who work there in non formal approaches. The skill and knowledge of individuals plays a crucial role in the capability of firms to assimilate technologies at ease. Lack of such dynamic capability becomes an obstacle for small firms to successfully exploit and create new opportunities through use of technology.

Another barrier to technology transfer process was the difficulty of integrating the new technology with the existing one. This arises from the neglect to monitor the performance of the new technology and its synchronization with other technology interfaces. The technology design and development be it in textile or leather goods producing sub-sectors need to be scrutinized with great care to match with existing machineries or apparatuses before they can be transferred.

## 4.8. Sustainability of Business Development Services

BDS becomes sustainable if it is continuously available to MSEs till they achieve certain level of development where they can reach solving problems by their own. With regard to this notion, questions were raised to respondents and their responses were organized as follows in table 4.10.

**Table 4.10 Linkage with Business Development Institutions**

Items	Responses	Textile and garment		Leather goods producers	
		No	%	No	%
How frequently does the government support on skill upgrading and technology transfer areas delivered to your firm?	Always	4	6.1	0	0
	Often	5	7.6	0	0
	occasionally	41	62.1	16	59.3
	Rarely	16	24.2	11	40.7
	Total	66	100	27	100
Do experts assigned by the government in areas of technology transfer and skill upgrading make frequent contact and follow up to your firm?	Yes	19	28.8	5	18.5
	No	21	31.8	11	40.7
	I don't know	26	39.4	11	40.7
	Total	66	100		100

**Source: Own Survey**

According to table 4.10, the respondents overall assessment of the frequency of support on the skill upgrading and technology transfer areas was an occasional practice according to 62% responses in textile sub-sectors and 59% of responses in leather sub-sectors. These responses imply that the government support programs in skill upgrading and technology support was on /off practice. Furthermore, 24% of textile responses and 41% responses in leather sub-sectors categorized the BDS support as a rarely practice which means almost none. This situation might be an obstacle in delivering business development services

particularly in mentoring, skill upgrading training and technology transfer issues. Such kind of loose link with MSEs remains an obstacle for the government to realize its plan of transforming the sub-sectors to a competitive level.

Concerning the sustainability of business development services, questions were raised in the discussion with center heads. Based on this the barriers to offer sustainable business development services were of various types. Accordingly the challenges of the government in offering a sustainable business development were lack of relevant trainers and training curriculum based on need gap of operators in each sub-sectors. Moreover, training institutes lack adequate infrastructures for tailor made training needs in the sub-sectors. Besides these, lack of adequate financial resources to implement all round enterprise supports particularly in subsidizing the technology transfer and adaption process. The absence of institutions supporting the skill improvement of micro and small scale enterprises retards the development of indigenous technologies from flourishing.

On the other hand, according to the interview with head of centers, there were problems observed in the formation of cooperatives in the sub-sectors. Accordingly it was found that some enterprise formations were just to get working premises for the sake of transferring the premises to third party for rent. Beyond these, considerably large numbers of MSEs were not concerned to repay loans as scheduled. The other challenge observed in business development process was the dependency syndrome with the government support.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary of Findings**

It was found that the educational background of the majority of the textile and leather goods producers were below the level of TVET graduate profile. Despite their low educational profile, the majority of them were able to write and read. This could create a fertile ground for skill upgrading training schemes given in the sub-sectors.

The primary problems of textile and leather goods producers were lack of input supply for producing their outputs. Shortage of market was found the second main problem for textile operators while deficiency of skill was the second main problem for leather goods producers. In addition to these, lack of finance was found the third common problem for both textile and leather goods producers.

Concerning access to business development services, the government action of offering working places was a significant stride for the sub-sectors under the study. This action had solved the critical problem that operators were suffering from paying high costs of renting and other related expenses. Despite such promising strides, micro and small enterprise development supports with regard to linking MSEs with suppliers of key inputs, markets and credit services were not sufficiently available.

The study found that personal experience and peer-to-peer learning was the most frequently used sources of skill upgrading for majority of the operators in the sub-sectors under the study. The arrangement of common working place for member of cooperatives created an opportunity to learn each other. Despite the problems of accessibility, some of the micro and small scale enterprises were using government training programs as a source of skill development opportunity.

The study highlighted that the training opportunities offered by the government in upgrading the skill of operators were not adequate to fill their skill gaps as the time allotted was short. Despite the limitations in terms of adequacy, the study found that the training

had brought positive effects with regard to improving the quality of products, minimizing costs, and introducing better methods of doing and improved labor productivity of beneficiaries. This is for the fact that improved technical skills are of prime importance for enhancing the productivity of MSE sub-sectors activities as well as the quality of the goods and services they produce. The finding in this regards is congruent to diverse body of literatures that skill improvement training influences subsequent behavior and drive the adoption and diffusion of new practices.

The study found that except leather sub-sectors, the majority of operators in textile MSEs were using locally upgraded technology. The situation of using locally upgraded technology in the handloom sub-sectors can be the basis for future technology development efforts. This can provide a lesson with regard to technology transfer processes in identifying bottlenecks in the process.

The finding of the study highlighted that considerably large numbers of MSEs were not engaged in transferring technologies from government owned technology transfer centers. 56% of the operators in textile sub-sectors and 41% of the operators in leather sub-sectors did not involve in any of the technology transfer activities. This shows that sufficient attention was not given to creating a favorable environment for technology transfer in development of the technology as well as disseminating it for actual users.

Despite the limited number of firms engaged in technology transfer, the majority of beneficiaries acknowledged that the technology transfer endeavors had positive effects on productivity improvement. Concerning this, technology brought changes in keeping the product quality with possibility of rising production volume and improvement on overall labor productivity. The consensus of the majority of respondents on the usefulness of skill upgrading and technology transfer supports shows that the intervention was significantly great in enhancing the productivity of MSEs under the study.

The study highlighted that the high cost of technology was the most crucial barrier of both textile and leather enterprises in the process of transferring technology. The other crucial barrier was difficulty of raising finance for procuring the appropriate technologies. It was

found that the cost of technology in several instances was a difficulty in technology transfer process. Next to these obstacles; low technical skill of MSEs to handle the new technology was the other obstacle in technology transfer process.

Concerning the sustainability of business development service intervention, it was found that the follow up and support of experts in skill upgrading and technology transfer was not available to the majority of the enterprises. Moreover, it was found that business development support interventions were an occasional and rarely practice. This situation undoubtedly retards the delivery of sustainable support services with regard to technology transfer and skill improvement/ upgrading.

The study also highlighted the challenges in the process of offering sustainable business development service particularly in technology transfer and skill improvement training. Accordingly, the main challenges were lack of appropriate trainers and training curriculum based on need gap of operators in each sub-sectors, lack of basic infrastructure relevant for tailor made training purposes and lack of adequate financial budget for subsidizing the technology transfer process.

## **5.2 Conclusions**

Based on the findings of the study the researcher had drawn the following conclusions.

The low educational profile of the operators particularly in technical skill necessitates the intervention of the government and other stakeholders in skill upgrading. Unless the situation is changed through skill upgrading training supports, the growth of MSEs remain depressed leaving them only a bread winner rather than working to bring remarkable changes on their size and capacity.

It was revealed that textile and leather operators were working under difficulties with regard to key inputs supplies, markets for their products, skills required to come out with quality products and raising capital for financing their operation. Despite the prevalent of such difficulties, the government support intervention was not addressing these problems seriously. Without addressing such problems, the growth and transformation of micro and



small enterprises cannot happen by itself. This is because, the competitiveness of micro and small scale enterprises is dependent on the capabilities to choose and use appropriate technology, and such tasks require provision of various infrastructures from the government and other concerned stakeholders.

Contrary to the limited opportunities in technology transfer and skill improvement training supports, beneficiaries were able to enhance their productivity with regard to offering quality products, minimizing wastage, introducing improved working methods and overall improvement in labor productivity. This implies that if the government works in a consistent manner collaborating with all stakeholders on enhancing productivity and capacity, there is a room for transforming the textile as well as the leather sub-sectors.

The cluster formation in textile and leather sub-sectors through arrangement of common working places is found playing a significant role in stimulating mutual learning by members of cooperatives in the sub-sectors. The interaction between members of cooperatives working in one working place can also facilitate technology transfer and learning of internal processes. This necessitates the formation of more clusters which are close and collaborating among themselves to improve their capacity to produce quality outputs.

### **5.3 Recommendations**

The limitation in knowledge and skills of operators due to low education profiles can be addressed through constant interaction with the operators and training institutions such as, technical and vocational training colleges and centers through mandating them offer tailor made training opportunities to textile and leather goods producers. For this purpose, institutions need to offer specialized training /tailor made training/ in product design and process improvement to enhance the knowledge and skills of operators in the industry.

The government business development supports need to be in line with the principle of priority, taking into account the scope of problems faced by MSEs. The support programs should focus on major problems such as facilitating and connecting with suppliers of key

inputs, creating link with markets and arranging credit facilities for financing of micro and small scale enterprises.

Creating an efficient and flexible credit policies and procedures need to be installed for financing of micro and small scale enterprises. This is mainly because, the difficulties in obtaining finance were more pronounced when it comes to obtaining finance for technology transfer and expanding their operation.

Recognizing the importance of MSE particularly in textile and leather sub-sectors, the government needs to design and execute forward-looking support schemes in technology transfer and skill improvement to strengthen micro and small enterprises succeed in an increasingly competitive market economy. It becomes feasible if the governments extend accessibility of skill improvement training opportunities to MSEs in textile and leather sub-sectors and improve the quality of training and the time allotted for it to enable trainees enhance their skill for better competitiveness. The observed improvement on productivity of users of technology transfer in MSEs gives a green light for policy makers, decision makers and facilitators of technology transfer to scale up achievements with beneficiaries of the program to redress the problems of poor product quality and capacitate MSEs offer products in line with the needs of the market.

The follow up and attachments between the MSEs and facilitators of business development programs need to be strengthened and the relationship should be developmental, consistent and close. The follow up of government support offices need to focus on tailor made training need identification, capacity building plan preparation and implementation, conducting monitoring and evaluation on micro and small enterprise development programs.

To solve some of the constraints and challenges of resource support to provide all round micro and small enterprise support programs, the government needs to mobilize various stakeholders who have an interest on the area. This can curb the problem of resource

wastage and can create conducive environment to work strategically on core problems of micro and small scale enterprises. Moreover, the support programs need to be based on the tangible progresses made as a result of supports given in the past and all the action need to be supplemented by behavioral change interventions to do away problems of dependency on government supports.

Beyond the role of producing skilled human resource, higher education institutions, primarily technical and vocational colleges need to be oriented and strengthened to generate technology as part of their core responsibilities. Orienting them to contribute in technology generation and transfer, and providing favorable infrastructure to vocational and technical colleges, could bridge the current challenge of accessing technical know-how of MSEs.

#### **5.4 Limitations of the Study**

Due to shortage of reference materials in the area of technology transfer in Ethiopian case particularly in micro and small scale sub-sectors, sources used in the review of literature were more of research findings in other countries.

The study did not use actual production data obtained from measure of the productivity of operators before and after government supports on skill upgrading training and technology transfer interventions. Data used for the study were the opinion of representatives/owners of MSEs on the contribution of the government supports on their performance. This might have its own limitation on the quality of data used for the analysis purpose. Moreover, the findings of the study had become more relevant if experimental research method was applied to investigate the effects of government supports on enterprises productivity through measuring productivity of control and experimental group who got training and technology transfer opportunities.

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## APPENDIX “A”



### St. Mary's University College School of Graduate Studies

#### **Questionnaire to be filled by MSE owners and operators**

Dear Respondent, I am a graduate program candidate working towards my Masters Degree in Business Administration. Currently, I am conducting a thesis work and collecting data for my research. I request your participation in my research by responding to this questionnaire. Please, kindly provide a candid response to the questions presented. Your response will be used only for academic purpose.

I thank you in advance for your willingness to fill out this questionnaire.

### Instructions for Respondents

- The questionnaire is made up of multiple choice questions and open comments.
- Please put a tick (✓) mark in the boxes or spaces provided in front of the chosen alternative.
- When you are writing comments for open ended questions, please write on the open spaces provided, briefly

### Part I: General Information

1. Name of micro/small enterprise\_\_\_\_\_

2. Date of establishment\_\_\_\_\_

3. No of employees operating in the enterprise\_\_\_\_\_

4. Level of education:

No formal education     Primary     Secondary     TVET     BA degree

and above

5. Gender:     Male     Female

6. Indicate the main problems your enterprise has been facing since establishment?  
(Multiple answers are possible)

- Market problems
- Lack of business skills
- Lack of inadequate supply of inputs
- Lack of working place
- Production/technical problems
- Lack of finance/credit facilities

7. Which of the following business developments services are offered to your enterprise since establishment?

Type of business development services	Used	Not used
Market facilitation		
Linking with suppliers of key inputs		
Facilitation of working place		
Technical skill upgrading		
Supplying appropriate technologies		
Access to credit facilities		
Information and consultancy		
Others ....		

**Part II: Government support on skill development training**

8. What is/are the main sources of skill development for you and others working with you?  
(Multiple answers are possible)

- On job training
- Personal work experience
- Government training centers
- Experience from clusters
- Technology transfer institutions
- Others (specify if any) \_\_\_\_\_

9. Did you receive technical skill upgrading opportunities from the government?

- Yes  No

10. If your response for question number 9 is ‘yes’, indicate the benefits of the training to your firm in the following table.

<b>The training taken has contributed in:</b>	Strongly Agree	Agree	Somewhat	disagree	Strongly disagree
Improving product quality					
Cost minimization					
Waste minimization					
Introduce new working methods in the firm					
Increasing Labor productivity					
Improving problem solving skills					

11. What is your overall assessment of the adequacy of skill upgrading trainings in terms of addressing the skill gaps you faced?

- Adequate  Inadequate  undecided

**Part III. Government Support on Technology Transfer**

12. What is the type of technology your firm currently using?

Traditional Technology       Modern Technology     Locally upgraded traditional technology

13. Did you have linkage with technology transferring centers established by the government?

Yes       No

14. If you are using technologies supplied by government technology transfer centers, are you fully using them in operation?

Yes       No       I am not user of any new technology

15. Does the new technology transferred to your firm positively impacted on your productivity?

Yes       No       I am not user of new technology

16. How often has your firm (SME) been involved in technology transfer?

- Not yet
- Once
- 2-3 times
- 3-5 times
- More than 5 times

17. If the technology transfer has positively impacted on your firm, how do you rate its effect on your productivity improvement?

<b>Following usage of technology, my enterprise has benefited in:</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Somewhat</b>	<b>disagree</b>	<b>Strongly disagree</b>
Cost saving					
Improved product quality					
Improved market acceptance					
Firm competitiveness has improved					
Production volume increased					
Customer complain reduced					

Increased product categories					
Overall labor productivity improved					

18. What is your opinion on barriers to technology transfer (TT)?

<b>The main berries in the process of technology transfer were:</b>	Strongly Agree	Agree	Somewhat	disagree	Strongly disagree
Low technical skill in utilizing the technology					
High cost of technologies					
Lack of finance for acquiring technologies					
Difficulty of integration of new technology with existing one					
Shortage of appropriate technology supplier					
Lack of organizational leadership and support for doing technology transfer.					
Perception that SME cannot afford technologies					
Cultural barriers					

#### **Part IV. General questions on skill upgrading and technology transfer issues**

19. How frequently does the government support on skill upgrading and technology transfer areas delivered to your firm?

- Always                       Often                       Sometimes                       Rarely

20. Do experts assigned by the government in areas of technology transfer and skill upgrading make frequent contact and follow up to your firm?

- Yes                       No

21. For effective performance, what has to be improved in technology transfer and skill upgrading training interventions to micro and small scale enterprise?

**Thank you for cooperating!**

## APPENDIX B “Amharic Translation”



### ቅድስት ማርያም ዩኒቨርሲቲ የዲህረ ምረቃ ትምህርት ፕሮግራም

**ውድ የመጠይቁ መላሽ:-**

እኔ የቅድስት ማርያም ዩኒቨርሲቲ ኮሌጅ የቢ.ዚ.ነስ አድሚኒስትሬሽን የድህረምረቃ ትምህርት ፕሮግራም እጩ ተመራቂ ነኝ። የዚህ መጠይቅ ዋና ዓላማ ለሁለተኛ ዲግሪ ማሟያ የሚሆን የመመረቂያ ዕሁፍ ለማዘጋጀት መረጃ ማሰባሰብ ነው። እርስዎም በጥቃቅንና አነስተኛ ተቋማት በመስራት ላይ በመሆንዎ በዚህ ጥናት የሚያስልገውን መረጃ ለማሰባሰብ ከተመረጡ ተሳታፊዎች መካከል አንዱ በመሆን በመረጃ ምንጭነት ተመርጠዋል። በመሆኑም በዚህ መጠይቅ ላይ የሚሞሉት ማንኛውም መረጃ ሚስጥራዊነቱ የተጠበቀና ለማንም አካል ተላልፎ አይሠጥም። ስለሆነም ከዚህ በታች ለቀረቡት ጥያቄዎች ሃሳብዎን በቅንነት ያስቀምጡ ዘንድ በትህትና እጠይቃለሁ። ስም መጻፍ አያስፈልግም።

**በቅዱሚያ ለትብብርዎ አመሰግናለሁ!!!**

**የአመላላስ መመሪያ**

- ለጥያቄዎቹ ከቀረበላቸው አማራጮች ውስጥ መልሱን /✓/ በማድረግ ያስቀምጡ።
- አማራጭ ለሌላቸው ጥያቄዎች ሀሳብዎን በግልፅ በተሰጡት ክፍት ቦታዎች ላይ ያስቀምጡ።

**ክፍል አንድ፡- አጠቃላይ መረጃ**

1. የሚሰሩበት ተቋም ስም.....
2. ተቋሙ የተመሠረተበት ዓ/ም ህረት.....
3. በዚህ ተቋም በመስራት ላይ ያሉ ሰራተኞች ብዛት.....

**4. የትምርት ደረጃ**

መሰረታዊ ያልሆነ ስልጠና		የ10/12ኛ ክፍል ያጠናቀቀ	
6ኛ ክፍል ያጠናቀቀ		የቴክኒክና ሙያ ስልጠና/ዲፕሎማ ያጠናቀቀ	
8ኛ ክፍል ያጠናቀቀ		የመጀመሪያ ድግሪና ከዚያ በላይ	

**5. ጾታ  ወንድ  ሴት**

6. የሚሰሩበት ተቋም ከተቋቋመበት ጊዜ ጀምሮ ያጋጠሙት ዋና ዋና ችግሮች የትኞቹ ናቸው? ( ከአንድ በላይ ምላሽ መስጠት ይቻላል)

የገባያ ችግር		የማምረቻና መሸጫ ቦታ አለማግኘት	
የንግድ ክህሎት ማነስ		የቴክኒክ ክህሎት ማነስ	
አስፈላጊ ግብዓቶች እጥረት		የገንዘብ ዕጥረት/የብድር አገልግሎት ማጣት	

7. አሁን እየሰሩ ያሉበት አነስተኛና ጥቃቅን ድርጅት ከሚከተሉት የተቋማት ማሻሻያ ድጋፎች ውስጥ የትኞቹን አገልግሎቶች ተጠቃሚ ሆኗል? /ከአንድ በላይ ምላሽ መስጠት ይቻላል/

ገባያን የማመቻቸትና የማስተሳሰር አገልግሎት		ተገቢ የቴክኖሎጂ አቅርቦት	
ጥሬ ዕቃ አቅራቢዎች ጋር የማስተሳሰር		የብድር አገልግሎት	
የመስሪያና የመሸጫ ቦታ ማመቻቸት አገልግሎት		የመረጃና የምክር አገልግሎት	
የቴክኒክ ክህሎት ማሻሻያ ስልጠናዎች		ሌላ ካለ...	

**ክፍል ሁለት፡- በመንግስት የሚሰጡ የክህሎት ማሻሻያ የስልጠና ድጋፎችን በተመለከተ**

**8. በተቋማችሁ ላሉ ስራተኞችም ሆነ ለርስዎ የሙያ ክህሎት ማሻሻያ ምንጭ በዋናነት የምትጠቀሙት የትኞቹን ነው? ( ከአንድ በላይ ምላሽ መስጠት ይቻላል)**

የስራ ላይ ስልጠና		ከአቻ ተቋማት ጋር ከሚደረግ ልምድ ልውውጥ	
በግል በስራ ላይ ከሚገኝ ልምድ		የቴክኖሎጂ ሽግግር ተቋማት	
የመንግስት የስልጠና ተቋማት		ሌላ ካለ...	

**9. ካሁን በፊት ከመንግስት በተመቻቸ የቴክኒክ ክህሎት ማበልጸጊያ ስልጠና ዕድል ተጠቅመዋልን?**

አዎ ተጠቅሜአለሁ  አልተጠቀምኩም

**10. በአጠቃላይ በእርስዎ እይታ የቴክኒክ ክህሎት ማበልጸጊያው ስልጠና የስራተኞችን የክህሎት ክፍተት ከመሙላት አንጻር ሲገመገሙት በቂ ነበርን?**

በቂ ነው  በቂ አይደለም  መወሰን ያስቸግረኛል

**11. ከላይ በተራ ቁጥር 9 ላይ ለቀረበው ጥያቄ ምላሽዎ “አዎን” ከሆነ የቴክኒክ ክህሎት ማበልጸጊያው ስልጠና በሚሰሩበት ተቋም ያበረከተውን ፋይዳ ከዚህ በታች በቀረቡት ሃሳቦች መሰረት አስተያየትዎን የስቀምጡ፡፡**



የቴክኒክ ክህሎት ማበልፀጊያው ስልጠና	በጣም እስማማለሁ	እስማማለሁ	በመጠኑ እስማማለሁ	አልስማማም	በጣም አልስማማም
የምርት ጥራት መሻሻል ላይ አስተዋጽኦ አድርጓል					
ወጪ ቆጣቢ የሆነ አሰራር እንድናር አስችሏል					
ብክነት የነበራቸው አሰራሮችን አስቀርቷል					
አዳድስ የአሰራር ስርዓት እንድዘረጋ አስችሏል					
የሰራተኞች ምርታማነት እንድሻሻል አስችሏል					

**ክፍል ሦስት፡- በቴክኖሎጂ ሽግግር ዙሪያ መንግስት የሚያደርጋቸውን ድጋፎች በተመለከተ**

12. በተቋሙ አሁን በስራ ላይ የዋለው የቴክኖሎጂ አይነት፤

- ባህላዊ ቴክኖሎጂዎች                       ዘመናዊ ቴክኖሎጂ                       የተሸሻለ ባህላዊ ቴክኖሎጂ

13. የሚሰሩበት ተቋም መንግስት ካቋቋማቸው የቴክኖሎጂ ተቋማት ጋር ግንኙነት ያደርጋልን

- አዎ                       ምንም ግንኙነት የለም

14. ወደ ተቋሙ የተሸጋገረውን ቴክኖሎጂ ሙሉ በሙሉ የቴክኖሎጂውን አቅም አሟጦ እየተጠቀመበት ነውን?

- አዎ                       አይደለም                       ተቋማችን ቴክኖሎጂ ተጠቃሚ አይደለም

15. እርስዎ አሁን የሚሰሩበት ተቋም ምን ያህል ጊዜ የቴክኖሎጂ ሽግግር ተደርጓል?

- ምንም የቴክኖጅ ሽግግር አልተደረገም ተደርጓል                       አንድ ጊዜ የቴክኖጅ ሽግግር ተደርጓል
- ከ 2-3 ጊዜ የቴክኖጅ ሽግግር ተደርጓል                       ከ4-5 ጊዜ የቴክኖጅ ሽግግር ተደርጓል
- ከ5 ጊዜ በላይ የቴክኖጅ ሽግግር ተደርጓል

16. ተቋሙ የቴክኖሎጂ ሽግግር በማድረግ በምርታማነቱ ላይ አስተዋፅኦአ አምጥቷል ብለው ያምናሉን?

አዎ  አላመጣም  ተቋማችን ቴክኖሎጂ ተጠቃሚ አይደለም

17. ከላይ በተራ ቁጥር 16 ላይ ለቀረበው ጥያቄ ምላሽዎ “አዎን” ከሆነ የቴክኖሎጂ ሽግግሩ በሚሰሩበት ተቋም ያበረከተውን ፋይዳ ከዚህ በታች በቀረቡት ሃሳቦች መሰረት አስተያየትዎን ያስቀምጡ።

ተቋሙ የቴክኖሎጂ ሽግግር በማድረግ የተገኙት ፋይዳዎች	በጣም እስማማለሁ	እስማማለሁ	በመጠኑ እስማማለሁ	አልስማማም	በጣም አልስማማም
ወጪ መቆጠብ ተችሏል					
የምርት ጥራት ተሻሽሏል					
የምርቱ ተቀባይነት በገባ ያላይ አድጓል					
የተቋሙ ተወዳዳሪነት ጨምሯል					
የተቋሙ የምርት መጠን አድጓል					
ተቋሙ የሚያቀርባቸው የምርት ዓይነቶች ጨምረዋል					
በአጠቃላይ የሠራተኛውን ምርታማነት አሳድጓል					

18. በእርስዎ ልምድና ግንዛቤ ጥቃቅንና አነስተኛ የቴክኖሎጂ ሽግግር በማድረግ እንቅፋት ናቸው ብለው የሚያምኗቸውን ጉዳዮች ላይ የስምምነትዎን መጠን ያመልክቱ።

በጥቃቅንና አነስተኛ ተቋማት የቴክኖሎጂ ሽግግር በማድረግ ሂደት ዋና ዋናዎቹ እንቅፋቶች	በጣም እስማማለሁ	እስማማለሁ	በመጠኑ እስማማለሁ	አልስማማም	በጣም አልስማማም
የሰራተኞች የቴክኒክ ክህሎት ዝቅተኛ መሆን					
የቴክኖሎጂዎች ዋጋ ውድ መሆን					

ተቋማት የገንዘብ አቅም የሌላቸው መሆኑ					
አድሱን ቴክኖሎጂ ከነባሩ አሰራር ጋር ለማቀናጀት አስቸጋሪ መሆኑ					
ቡቴክኖሎጂ ሽግግሩ ወቅት የድጋፍ ሰጪ ተቋማት ድጋፍ ዝቅተኛ መሆን					
ጥቃቅንና አነስተኛ ተቋማት ቴክኖሎጂ ማሸጋገር የሚችል አቅም የላቸውም ከሚል እሳቤ					
የባህል ተጽዕኖ መኖር					

**ክፍል 5: አጠቃላይ በተክኖሎጂ ሽግግርና ክህሎት ማሻሻያ ስልጠናን በተመለከተ**

19. መንግስት የተክኖሎጂ ሽግግርና ክህሎት ማሻሻያ ስልጠና ላይ የሚያደርገው ድጋፍ ምን ያክል ተደጋጋሚ ነው?

- ሁልጊዜ ነው     
 ብዙ ጊዜ ነው     
 አልፎ አልፎ ነው     
 ድጋፍ አለ ማለት ያስቸግራል

20. በቴክኖሎጂ ሽግግርና ክህሎት ማሻሻያ ስልጠና ላይ የሚሰሩ ሙያተኞች ለጥቃቅንና አነስተኛ ተቋማት ቀጣይነት ያለው ግንኙነትና ድጋፍ ያደርጋሉን?

- አዎ                                     
 አያደርጉም                                     
 አላውቅም

21. የተክኖሎጂ ሽግግርና ክህሎት ማሻሻያ ስልጠና ድጋፍ በተሳካ መልኩ በጥቃቅንና አነስተኛ ተቋማት ለማካሄድ ምን መሻሻል አለበት ብለው እንደሚምኑ በአጭሩ ያስቀምጡ

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**ይህን መጠይቅ በመሙላት ላደረጉልኝ ትብብር አመሰግናለሁ!!**

## APPENDIX “C”

### Interview Guide for Discussions Held with Center Heads

1. What are the problems that micro and small businesses are facing in textile and leather sector?
2. How do assess the government supports in skill improvement schemes given to textile and leather sector? Give also the problems faced in skill improvement supports?
3. Mention the progresses you have observed following training supports to the sector.
4. What are the ranges of technology support to micro and small scale enterprises in this sector?
5. What is your overall judgment on the effect of the technology transfer schemes to the sector you are working?
6. What is the situation of linkages of government micro enterprise development offices with micro and small scale enterprises?
7. Do you think that the government supports with regard to technology transfer and skill improvements are sustainable?
8. What are the challenges observed and encountered in the process of offering sustainable business development services to micro and small scale enterprises.

## ENDORSEMENT

This thesis has been submitted to St. Mary's University College, School of Graduate Studies for examination with my approval as a university advisor.

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Advisor

**St. Mary's University College, Addis Ababa**

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Signature

**April, 2013**

## DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of **Abera Demsis** (PhD Candidate). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Endris Yimer Adem

\_\_\_\_\_

Name

Signature

**St. Mary's University College, Addis Ababa**

**April, 2013**