Governance and Upgrading Practices in Cloth Production Value Chain: The Case of Micro and Small Enterprises in Addis Ababa

Amanuel Kussia* and Tegegne Gebre-Egeziabeher**

Abstract

This study examines the governance pattern and upgrading practices of value chain of cloth production, focusing on micro and small cloth producing enterprises in Addis Ababa. The study is based on a sample of 222 respondents drawn from various actors of the value chain in the city. The value chain is found out to be greatly fragmented in terms of linkages between actors. The governance pattern between and/or among the different actors in the value chain is characterised by a varied range of relationships even if the chain is dominated by arm's length transactions. The study also finds out that both micro and small enterprises are engaged in process and product upgrading, but they have shown limited or no functional and channel upgrading. The study found out that low demand in the end market, weak vertical and horizontal linkages, weak learning and information sharing practices, and lack of support and embedded services hindered the upgrading of micro and small enterprises in Addis Ababa. On the other hand, increased demand and captive patterns of governance influenced process and product upgrading positively while production technique training and relational patterns of governance positively influenced product upgrading. It is, therefore, imperative to stimulate demand, strengthen production training, and closely examine patterns of governance in order to enhance firms' upgrading practices.

Keywords: *Micro and small scale enterprises, value chain, value chain structure and governance, upgrading, linkages*

* Lecturer, Ethiopian Civil Service University, E-Mail: amankussia@yahoo.com.

** Professor, Addis Ababa University, E-Mail: tegegneg@yahoo.com

Introduction

In many countries, micro- and small-enterprises (MSEs) are considered as engines of economic growth since they create employment, generate tax revenue, increase exports, and constitute the largest percentage of firms in the economic activity. In Ethiopia, the involvement of MSEs in the clothing sector is vital not only because the sector requires low capital investment and is labour intensive, but also because it has strong backward linkage with other sectors of the economy, such as agriculture which has been the backbone of the Ethiopian economy for several centuries. The sector can also have forward links with national and international markets and thereby enhance the growth of the country by generating foreign currency. Backward links result in the participation of local people in the sector and forward links ensure that the global economy is shared by local industry including local input suppliers (Kimeme and Mbwambo, 2009).

Nonetheless, the bulk of MSEs in general and cloth producing enterprises in particular have been challenged by numerous factors which impede them from playing their expected role. A number of studies pointed out factors, such as: (i) unfavourable legal and regulatory environments and, in some cases, discriminatory regulatory practices; (ii) lack of access to markets, finance, business information; (iii) lack of business premises (at affordable rent); (iv) low ability to acquire skills and managerial expertise; (v) low access to appropriate technology; (vi) poor access to high quality business infrastructure; and (vii) inequality in tax administration, and corruption constraints on micro and small businesses (FDRE and ILO, 2009; Amin, 2007; Kellow, 2007; Hansson, 2004; World Bank, 2004).

In identifying the challenges and opportunities of micro- and small-scale cloth producing enterprises and examining the efficacy of different interventions,

previously conducted studies in Ethiopia (JMCS and AAMSEDA, 2010; FDRE and ILO, 2009; Berihu, 2008; Ali, 2007; Amin, 2007; Kellow, 2007; Hansson, 2004; FeMSEDA and MoTI, 2004; World Bank, 2004) have often failed to analyse the value chain in which these enterprises participate. However, international literature indicates that in today's global economy, MSEs are not best studied in isolation (Campbell, 2008; Bloom *et al.*, 2007). Rather, it is often more fruitful to examine MSEs as part of the value chain to which they belong (Bloom *et al.*, 2007). According to Meyer (2007), value chain is the full range of activities and services required to bring a product or service from its conception to its end use. Value chain involves different sequences of activities, such as input supply, design, production and distribution, in which various actors involve (Tegegne, 2009).

One of the most important means via which MSEs effectively respond to market opportunities and become competitive in the value chain is upgrading to add value to products or services and make production and marketing processes more efficient (Bloom *et al.*, 2007). Particularly, firm-level upgrading by MSEs is a key component of an economic growth with poverty reduction strategy for increasing the participation, contribution, and benefits of MSEs in value chains (Dunn and Villeda, 2005). Similarly, understanding the governance pattern of the value chain is also imperative in enhancing the competitiveness of MSEs. Governance, according to Gereffi (1994), is an authority and power relationships that determine how financial, material, and human resources are allocated and how they flow within the chain. Governance structures, thus, influence firm-level upgrading through their effects on firms' market access, learning opportunities, economic returns, and risks (Gereffi, 1999).

The main purpose of this study is to examine the governance pattern and the

upgrading practices of the value chain of cloth production in micro- and small-scale enterprises in Addis Ababa. More specifically, the article uses the value chain approach to examine the governance pattern, scrutinise upgrading practices, and find out the major factors that enhance or impede these attributes of the value chain.

The rest of the article is structured as follows: section two reviews the existing literature on value chain, structure, governance, and upgrading; section three briefly describes the methodology; section four discusses the data and results; and the last section concludes.

Theoretical Perspectives on Value Chain

Most scholars define value chain as the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use (UNCTAD, 2010; Meyer, 2007; Hellin and Meijer, 2006; Kaplinsky and Morris, 2003; Kaplinsky and Readman, 2001; Gereffi, 1999). It involves a range of value-adding economic activities required in the design, production and marketing of a product (UNIDO, 2009; McCormick and Onjala, 2007).

Some researchers argue that in today's globalised market, rarely do individual companies alone undertake the full range of activities required to bring a product from conception to market (Pietrobelli and Rabellotti, 2006). The design, production, and marketing of products involve a chain of activities divided among different enterprises that are often located in different places, sometimes even in different countries; this shows that value chains have global reach (Pietrobelli and Rabellotti, 2006). It is also possible to find local, regional or national value chains with limited geographic reach although operating in the same way as global chain (McCormick and Schmitz, 2002).

Value chain literature focuses on the issues of governance and upgrading, mainly because their role in the value chain is crucial in enhancing the competitiveness of enterprises. Gereffi (1994:97) defines value chain governance as "authority and power relationships that determine how financial, material, and human resources are allocated and flow within a chain." As regards the term governance, Humphrey and Schmitz (2001) use it to express the situation in which some firms in the chain set and/or enforce the parameters under which others in the chain operate. For Bloom *et al.* (2007), governance is the dynamic distribution of power, learning, and benefits among firms in a value chain. The most recent literature on governance and upgrading has interestingly analysed the implications of the five typologies of governance in terms of opportunities for firm-level upgrading in developing countries (Bloom *et al.*, 2007; Schmitz, 2006; Gereffi *et al.*, 2005). These typologies are:

1) Market value chains— in this type of governance, buyers and suppliers do not develop close relationships; market linkages do not have to be completely transitory; and suppliers have the capability to meet the specifications without assistance or monitoring from the buyer (Bloom *et al.*, 2007; Gereffi *et al.*, 2005; Humphrey and Schmitz, 2001).

2) Modular value chains — in this type of governance, products are non-standard and each buyer has unique requirements; so, complex information must be communicated between buyers and suppliers (Bloom *et al.*, 2007).

3) Relational value chains — it is characterised by complex interactions between buyers and sellers, which often create mutual dependence and high levels of asset specificity which may be managed through reputation, or family and ethnic ties (Gereffi *et al.*, 2005).

4) Captive value chains — characterised by a high degree of monitoring and control by lead firms (Gereffi *et al.*, 2005).

5) Hierarchy value chain— here, the functions of the buyer and supplier are vertically integrated under the ownership of a single firm.

The value chain literature also accentuates the issue of upgrading as one of the critical ingredients in enhancing the competitiveness of firms. Upgrading is a process through which those who run enterprises acquire new knowledge, often through relationships with other firms in the value chain or with firms in supporting markets, and increase 'value added' of their offerings (Dunn *et al.*, 2006). It is essential to value chain competitiveness (Ernst, 2004) as it ensures that the chain is able to meet the consumer's changing preferences for lower price, improved quality, and, in the case of the clothing sector, improved design (Bloom *et al.*, 2008).

Five types of upgrading have been singled out in the literature: a) process upgrading, which means increasing efficiency (more output for same level of inputs); b) product upgrading, which refers to improving product quality; c) functional upgrading, which refers to moving to a new, higher value-added level in the value chain; d) channel upgrading, which stands for selling into a new market channel within the value chain (Kaplinsky and Morris 2003; Humphrey and Schmitz 2002; Humphrey and Schmitz 2000; Dunn *et al.* 2006); and e) chain upgrading, which suggests moving to a new value chain (Dunn *et al.*, 2006; Bloom *et al.*, 2007).

The literature also identifies the close relationship between the different types of upgrading and governance. Captive relationships are generally assumed to provide the strongest support for process and product upgrading, because buyers have a material interest in improving supplier capability. On the other hand, buyers

in captive relationships seek to maintain control over the design and marketing functions, thus seeking to discourage functional upgrading on the part of their suppliers (Schmitz 2006; Guiliani *et al.,* 2005). Similarly, buyers in a relational system have incentives to support process and product upgrading among their existing suppliers, since there are high costs associated with switching to new suppliers and developing efficient communication mechanisms (Bloom *et al.,* 2008; Dunn *et al.,* 2006). By contrast, market relationships are assumed to be neutral with respect to upgrading; they neither support nor block it (Bloom *et al.,* 2008).

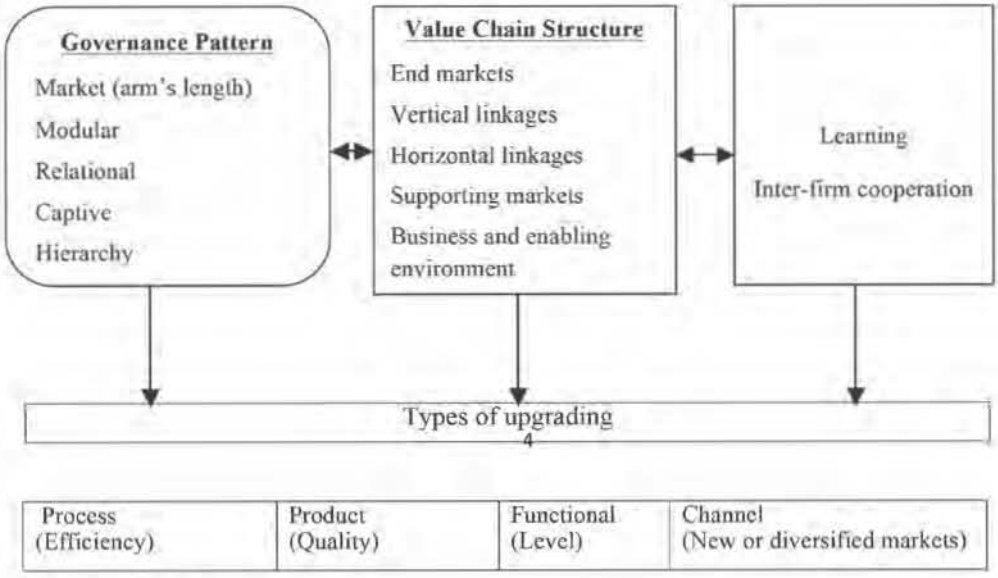
The discussion of value chain is incomplete without a thorough examination of its structure. The structure of a value chain includes all the firms in the chain and can be characterised in terms of five elements: end markets; business and enabling environment; vertical linkages; horizontal linkages; and supporting markets (Campbell 2008; Kula *et al.,* 2006; Dunn *et al.,* 2006). These elements of value chain structure have positive or negative impacts on upgrading practices of firms.

Research findings demonstrate that links between firms, in the form of coordination and cooperation, reduce transaction costs, increase the ability of the chain to meet and adjust to consumer demands, and affect the distribution of learning and benefits within the chain (Goldmark and Barber, 2005; Morris and Barnes, 2004; Humphrey, 2001). The value chain literature particularly explains two main types of linkages: a) horizontal linkages— relationships among firms at the same level of the value chain; and b) vertical linkages— relationships between buyers and their suppliers. Empirical evidence shows that these linkages provide a means for MSEs to actively participate in, and benefit from, global market (Dunn *et al.,* 2006; Guiliani *et al.,* 2005; USAID, 2005; Schmitz, 2004; Humphrey, 2003;

Humphrey and Schmitz, 2002). In general, it is found that favourable structural elements— strong demand in end markets, enabling business environment, extensive linkages between firms, and effective supporting markets— can all work to encourage MSE upgrading (Dunn *et al.*, 2006).

Conceptual Framework

The conceptual model described below shows the interactions between and/or among the structure of the value chain and value chain dynamics (governance, learning and inter-firm cooperation) and how they affect upgrading decision of MSEs. This study focuses on how governance pattern, the structure of the value chain, learning and inter-firm cooperation affect value chain upgrading decisions of firms.



Source: Own construction

Upgrading depends upon the governance pattern. The discussion of the links between governance and upgrading has placed particular emphasis on process, product, and functional upgrading (Schmitz 2006; Guiliani *et al.,* 2005). Captive relationships may encourage process and product upgrading due to the strong desire of the buyers to procure quality products. Buyers focus on improving supplier's capability (their capacity to improve products and processes) to acquire what customers want. Conversely, buyers may discourage functional upgrading by maintaining control over the design and marketing functions. Similarly, buyers in a relational system have incentives to support process and product upgrading among their existing suppliers, since there are high costs associated with switching to new suppliers and developing efficient communication mechanisms. By contrast, market relationships are assumed to be neutral with respect to upgrading; they neither support nor block it (Bloom *et al.* 2008).

Five structural elements of the value chain (end markets, vertical linkages, horizontal linkages, supporting markets and business enabling environment) influence upgrading and shape the behaviour of individual firms and the dynamics of the value chain. For instance, when there is favourable condition in the end markets, firm owners can respond by innovating either in process or product in order to reap the benefits created in the market. The quality of both horizontal and vertical linkages between and/or among the different actors in the value chain is a key factor that could affect the proper functioning of a value chain. For example, if there are compelling and mutually beneficial relationships between firms in the value chain and when these linkages allow the transmission of information, skills, technology, services, and the like, the opportunity of a firm to

upgrade will be high. The availability of supporting market services, sometimes called business development services, such as financial services mainly related with lending, capital investment, leasing, and the like; provision of business consultation, information and communication technology, and legal advice services; marketing services; and design services could favourably influence the upgrading behaviour of micro- and small-scale clothing enterprises. The business enabling environment at the local, national and international levels can also be an incentive or a disincentive for a firm to involve in upgrading. For example, enhanced business enabling environment at different levels which focuses on the elimination of constraints associated with legal and administrative mechanisms, would positively influence the upgrading practices of micro- and small-scale clothing enterprises.

Upgrading also depends on learning and knowledge about a number of issues, such as: the requirement of market, knowledge concerning potential returns on investment, awareness of upgrading opportunities, information to evaluate upgrading opportunities, knowledge and skills for successful implementation of the innovation, and business and communication skills. Inter-firm cooperation can also play critical roles in determining upgrading behaviour of MSEs. For example, links between firms, in the form of coordination and cooperation, reduce transaction costs, increase the ability of the chain to meet and adjust to consumer demands, and affect the distribution of learning and benefits within the chain and facilitate the upgrading of MSEs.

Methodology

The study was conducted in Addis Ababa, the capital city of Ethiopia. It used both qualitative and quantitative approaches to generate information that can help to understand governance and upgrading practices. For the quantitative part, a

survey design was used. The target population consisted of micro- and small-scale cloth producing enterprises, buyers and input suppliers. The selection procedure for micro and small cloth producing enterprises proceeded in two stages. In the first stage, four sub-cities, namely, 1) Gulele, 2) Addis Ketema, 3) Kirkos, and 4) Arada were selected purposively because of high concentration of micro- and small-scale clothing enterprises in these areas. In the second stage, both micro- and small enterprises were selected from a list obtained from Addis Ababa Micro and Small Enterprise Development Agency (AAMSEDA) and Micro and Small Enterprise (MSE) development offices at sub-city[1] and *woreda*[2] levels. A total of 803 (649 micro and 154 small[3]) enterprises were found out to be operational in the four sub-cities. Based on this list, 10% of the micro enterprises (i.e. 65 enterprises) and 36% of small enterprises (i.e. 56 enterprises) were selected using systematic random sampling strategy. Small cloth producing enterprises, which have small population size, were over sampled to make the sample suitable for comparison.

Snowball sampling technique was employed to select buyers and input suppliers. This is an approach that enables the researchers to make initial contact with an individual or a small group of people who are suitable to the issue under investigation and then to use these to create contacts with others (Bryman, 2012). This technique can be considered as a response to solve the problems associated with sampling of hidden populations (Atkinson and Flint, 2001). In this study, snowball sampling technique was used for two reasons. Firstly, there was no list of buyers and input suppliers that can be used as a sampling frame. Secondly, buyers and input suppliers are highly scattered throughout the city and it was difficult to construct a sampling frame and identify their exact location. Snowball sampling, however, enabled to identify these respondents by drawing on network of linkages with producers and other buyers and suppliers. Accordingly, 50 buyer

firms from different categories and 20 input suppliers were selected from different parts of the city.

In general, a total of 191 firms (121 cloth producing enterprises (65 micro and 56 small); 50 buyer firms and 20 input supplying firms) were surveyed using a structured questionnaire. Of these, 189 questionnaires (98.9%) were returned and utilised.

For the qualitative part, key informants, based on their willingness to provide information, were purposively selected from different categories of value chain actors to gain in-depth information on some issues. Thirty one key informants— nine from buyers, ten from producers, two from input suppliers, and ten from supporting institutions— were selected on the basis of their willingness to provide information and their positions in the value chain. Unstructured and semi-structured interview checklists were used to collect data from these respondents.

Data collected by using the survey questionnaire with closed-ended questions were edited, coded, and entered into 17th version of the Statistical Package for the Social Sciences (SPSS) program. Descriptive statistics such as mean, tables, graphs and charts were used to present and interpret the data. A logistic regression was also used to study the influences of independent variables on process and product upgrading. Content analysis was used to analyse the qualitative data in which the data were organised by questions and individual respondents so as to facilitate identification of consistencies and differences in responses. Finally, themes and patterns were identified across responses and questions. These themes and patterns were brought together for interpretation.

Data and Results

Value Chain Map and Governance

Data collected via qualitative interview have generated useful information about the structure of the value chain in which cloth producing micro and small enterprises have been participating. This is illustrated in value chain maps for modern and traditional garments. Independent examination of these chains is imperative, particularly due to the fact that the majority of MSEs manufacture both modern and traditional cloths but sell some of their products in different market channels.

The value chain map of cloth producing MSEs shows four major levels of chain in which four key functions namely: input supply, production, wholesale and retail have been undertaken by varied actors of the value chain (see Figures 1 and 2). Major actors and service providers participating in the value chain include: input suppliers, cloth producers, brokers, distributors, designers, advert and printing enterprises, exporters, and retailers. It is found that the governance pattern between and/or among different actors in the value chain is characterised by a varied range of relationships, and thus none of the chains identified can be illustrated with a single governance pattern.

Value Chain of Modern Cloths

The value chain of modern cloth encompasses three domestic market channels (see Figure 1) such as: popular market in Addis Ababa, various public and private organisations, and domestic market outside Addis Ababa or regional markets. The detail structure and the operation of this value chain are discussed hereunder.

A. *Popular Market Channel*

The first domestic market channel in the modern cloths value chain is popular markets, which include small shops, open markets, and street vending in

Addis Ababa. These markets are chiefly concentrated in *Markato* (the largest open market in Africa) (https://en.wikipedia.org/wiki/), *Kolfe Gebeya*, *Shola Gebeya*, *Jan Meda, and Kazanchis* Sunday market. This channel is the largest of all markets in this chain and comprises thousands of firms where the bulks of these are MSEs. Products like school uniforms, sport wears, T-shirts, men's and women's suits, gowns, and children's clothes are mostly marketed in this channel. It is in this market channel that some of the cloth producers sell their products intermittently to end users in either open markets or Sunday markets or in own small retail shops. Retailers in this channel purchase cloth from producers wherein sometimes producers transport cloths to them or they procure from distributors. And so, retail shop owners in this chain resell to end users cloths made by different producers.

All brokers in domestic popular markets are operating informally and it is difficult to find them. They are, however, well known to producers and buyers with whom they are connected. The major job of these brokers is to hunt for buyers and connect them to producers. The majority of them are working on the basis commission, where both producers and buyers pay fee for the service provided. However, some of them purchase cloths from the producers (mainly on credit bases) and sale them either to distributors or final consumers. The majority of the producers claimed that they do not have the curiosity to sell their product to brokers. But due to lack of information about the market (price, buyers and their preference) and lack of premises for product display and sales, the only available option open to producers is selling their product at cheap price to brokers. Distributors are also one of the actors in this chain who buy cloths directly from producers and resale them to retailers.

Governance pattern in this channel is dominated by arms length relationship

where producers principally manufacture the standard cloths and sell them in the market. In other words, producers' interaction with their buyers is limited to the exchange of the cloth they produce for money and such types of transactions are repetitively occurring in this market. However, some relational pattern of governance is also observed between producers and distributors, where some of the producers make agreement (negotiation) in advance with these buyers on prices, quantity to be produced, quality, delivery time, and type of inputs to be used. This agreement is accompanied by frequent face-to-face interaction between producers and distributors. This pattern of governance, however, occurs occasionally particularly when distributors have high orders; otherwise, the relationship between buyers and distributors is characterised by arm's length market (Figure 1).

Advert and printing enterprises are connected to different firms in the chain (Figure 1). For example, distributors invite advert and printing enterprises to print different types of pictures or texts on the clothes that are highly demanded in the market. Advert and printing enterprises either buy the cloth from producers (when the cloth is not provided by distributors) or simply provide printing service on the cloth provided by the distributors. The enterprises sometimes use brokers to source cloths in the case of high orders or work with brokers if invited by them. Governance pattern between and/or among these actors is mixed. The relationship between distributors and advert and printing enterprises is relational due to the fact that they usually carry out activities based on negotiation/agreement. On the other hand, the link between advert and printing enterprises and producers tends to be captive since these enterprises specify quality, colour, and shape of cloth to be produced and apply sturdy control over the producers in order to ensure that the product is as per specification. However, the relationship between distributors and producers, between brokers and producers, as well as between brokers and

advert and printing enterprises is dominated by arm's length market pattern of governance (Figure 1).

B. *Public and Private Organisations*

The second market channel in modern cloth value chain is the chain through which MSE producers reach different public and private organisations. These organisations are schools (from kindergarten to high school) which take the responsibility of purchasing uniforms to their students, public enterprises and private organisations, such as factories owned by individuals, groups or shareholders, hotels, and caf'es. In this chain, producers manufacture uniforms for students and employees working in both private and public sectors. Small enterprises are the principal producers in this chain rather than the micro enterprises. And this is because the former have relatively good capacity to participate in and win different bidding competitions and produce the required amount and quality of cloth. Nonetheless, some micro enterprises also participate in this chain. In general, the governance pattern of this chain tends to be relational where both producers and buyers usually base their deal on written agreement and solve obstacles through negotiations. In this market channel, distributors procure cloths from producers and sell them to the final consumers (public and private organisations). The governance pattern between distributors and final consumers is relational since both parties base their deal on written agreements. On the other hand, the relationship between distributors and producers is market relation since distributors simply procure cloths from producers that meet the specification of their buyers (Figure 1).

Advert and printing enterprises are also among actors who participate in this chain. They search for organisations celebrating a special occasion which demand a unique dress to adorn the day. Alternatively, organisations which have such plans search for these enterprises. In that situation, advert and printing enterprises

approach cloth producers and order the colour, design, quantity and quality of cloth to be produced and strongly monitor them in accordance with specifications. Therefore, the relationship between producers and advert and printing enterprises is likely to be captive. On the other hand, the pattern of governance between advert and printing enterprises, and public and private organisations is explained by relational one since they make written agreement in advance (Figure 1).

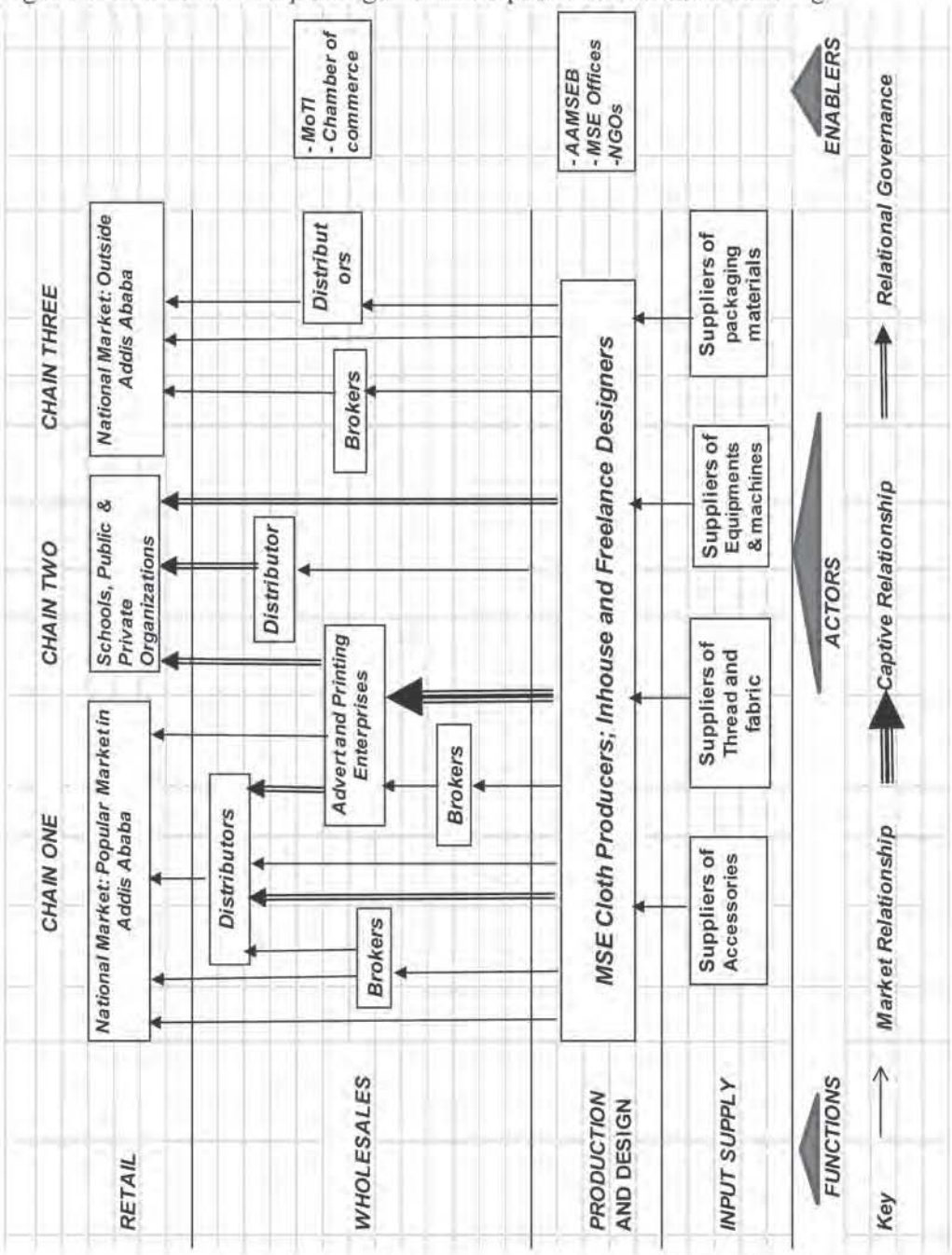
C. *Market Outside of Addis Ababa*

The third chain in the modern cloth supplies is domestic market outside of Addis Ababa. This market includes regional markets — mainly markets in the regional capital and large cities of Tigray, Amahara, Oromia, and Southern Nations Nationalities and Peoples regions. Producers reach this market either through distributors or brokers or directly sell their product to regional buyers. Brokers know regional buyers well and sometimes link them with producers and charge commission from both parties. Usually, they communicate with producers and regional buyers via mobile phones. They buy cloth from producers on credit or instruct them to manufacture before the arrival of regional buyers to Addis Ababa. Brokers contact as many producers as possible for cheap prices. Other actors in this chain are distributors who source cloth from producers and resell for regional buyers. This chain is dominated by arm's length market relation in that there is repeated exchange of cloth for money, diminutive information flows and no technical assistance to producers (Figure 1).

Input suppliers in modern cloth value chain provide mostly accessories such as, buttons, zippers, ribbon, and elastic tape; sewing thread and fabric – imported or locally produced; sewing machines and their spare parts; and packaging materials. The largest input suppliers in the modern cloth chain are micro and small enterprises who operate mainly as retailers or distributors. The governance pattern between input suppliers and producers tends to be market based, given

that the transaction between these actors is purely based on arm's length market relationships (Figure 1).

Figure 1.Value chain map and governance pattern of modern clothing



Source: Own survey

Value Chain of Traditional Cloth

Four traditional cloth markets were identified: these are popular and tourist markets in Addis Ababa, domestic market outside of Addis Ababa, exclusive shops in Addis Ababa, and overseas market. (See Figure 2).

A. *Popular and Tourist Markets*

The popular and tourist market chain involves small and large retail shops, open markets, street vending, and Sunday markets in Addis Ababa. These markets are highly concentrated in *Markato* (*Shema Tera* and *Minalesh Tera*), *Shiro Meda*, and *Addisu Gebeya*. This chain serves end users residing in Addis Ababa, visitors from other regions of Ethiopia, and foreign tourists. The chain is overcrowded during public holidays where demand for the traditional clothes reaches its peak. It is not unusual to see foreign tourists visit these areas, particularly *Shiro Meda* and *Addisu Gebeya* and buy some Ethiopian traditional cloths. It is through this chain that MSE producers get in touch with final consumers by selling cloths either in their own small shops or in Sunday markets or in streets. Sometimes, brokers collect cloths from producers and resell them either to distributors or retailers. This practice is particularly extensive during holidays, where the demand for the product increases and producers are busy in producing cloths. Producers also sell their products to distributors, mostly located in *Markato* and *Shiro Meda*.

The most common patterns of governance in the popular and tourist markets are market relationships and hierarchical with the predominant relationships being market relationships in which producers sell their products to local buyers (end users, retailers, brokers, and distributors) based on arm's length transaction. The same type of relationships was observed between buyers and brokers where brokers sometimes collect cloth from producers and resell it either to distributors

or retailers. Distributors also resell to retailers the cloth they collected from producers; and that is done in arm's length transaction. Most of the time, retailers in popular and tourist markets learn about the preference of buyers by scrutinising the type of cloth (colour, design, etc) sold swiftly or asking buyers to learn about their favourite type of cloth. Very few thriving enterprises in this chain function under hierarchical pattern of governance, where major functions like design, manufacturing, and retailing are vertically integrated (Figure 2).

B. *Domestic Markets Outside of Addis Ababa*

The second chain in traditional cloth marketing involves domestic markets outside of Addis Ababa in which producers sell their product either through intermediaries or directly to buyers in different regions of Ethiopia. However, compared to the first chain (popular and tourist market), sales volume is lower in this chain because traditional cloth producers found in the different regions can supply cloth to regional buyers. Regional buyers, however, come to Addis Ababa to purchase cloths that are unique (in design and colour) and/or cheap compared to regional prices. They buy clothes from distributors or brokers or directly from producers. The type of governance in this chain is totally market-based since each of these actors make transactions based on arm's length market relationship (Figure 2).

C. *Exclusive Shops in Addis Ababa*

The third marketing channel is the exclusive shops in Addis Ababa. The majority of these shops are owned by designers and are dispersed throughout the city. However, they are more concentrated in *Bole*, *Shiro Meda*, and *Kirokos* market centres. The main customers in this value chain are domestic high class (affluent) Ethiopians, diasporas, and tourists. The exclusive shops provide high quality products with unique design and style which are dressed in special occasions, such as wedding, celebration of particular event, and holidays. Most

of them have their own weavers who produce traditional fabric and tailors who manufacture traditional garment. Owners of exclusive shops also work with MSE producers where they define the product by design, colour, and specific requirement associated with quality and monitor producers closely in order to ensure the specifications of the production. The governance pattern in this chain tends to be hierarchical and captive. It is hierarchical in that a single exclusive shop owner has been carrying out the major functions in the value chain, such as input supply, design, production and retailing in vertically-integrated manner. Captive governance pattern is also observed between exclusive shop owners and producers due to the fact that shop owners define the product to be produced and exercise strong control over the producers. Designers do not want producers to have more than one buyer (apart from them) because of the fear of losing designs (Figure 2).

D. *Overseas Market*

The fourth chain in this traditional cloth production sector is overseas market. Almost all producers do not directly get in touch with buyers located outside Ethiopia. Rather, they participate in this chain by selling their product to exporters located in Ethiopia. Some of the exporters form an association and sell traditional cloths to buyers located outside Ethiopia while others reach foreign markets by operating individually. Both exporters (associations and individuals), however, source the product either from the producers or manufacture them in their own firms. Since the production of cloths in this chain requires special care in terms of quality and design, the majority of exporters have established vertically integrated firms in which functions like input supply (handloom fabric), design, production, and selling are carried out by a single firm. Some exporters source cloths from producers where product specifications (quality, design, style, etc) are defined in advance by them. In this instance, exporters select producers by

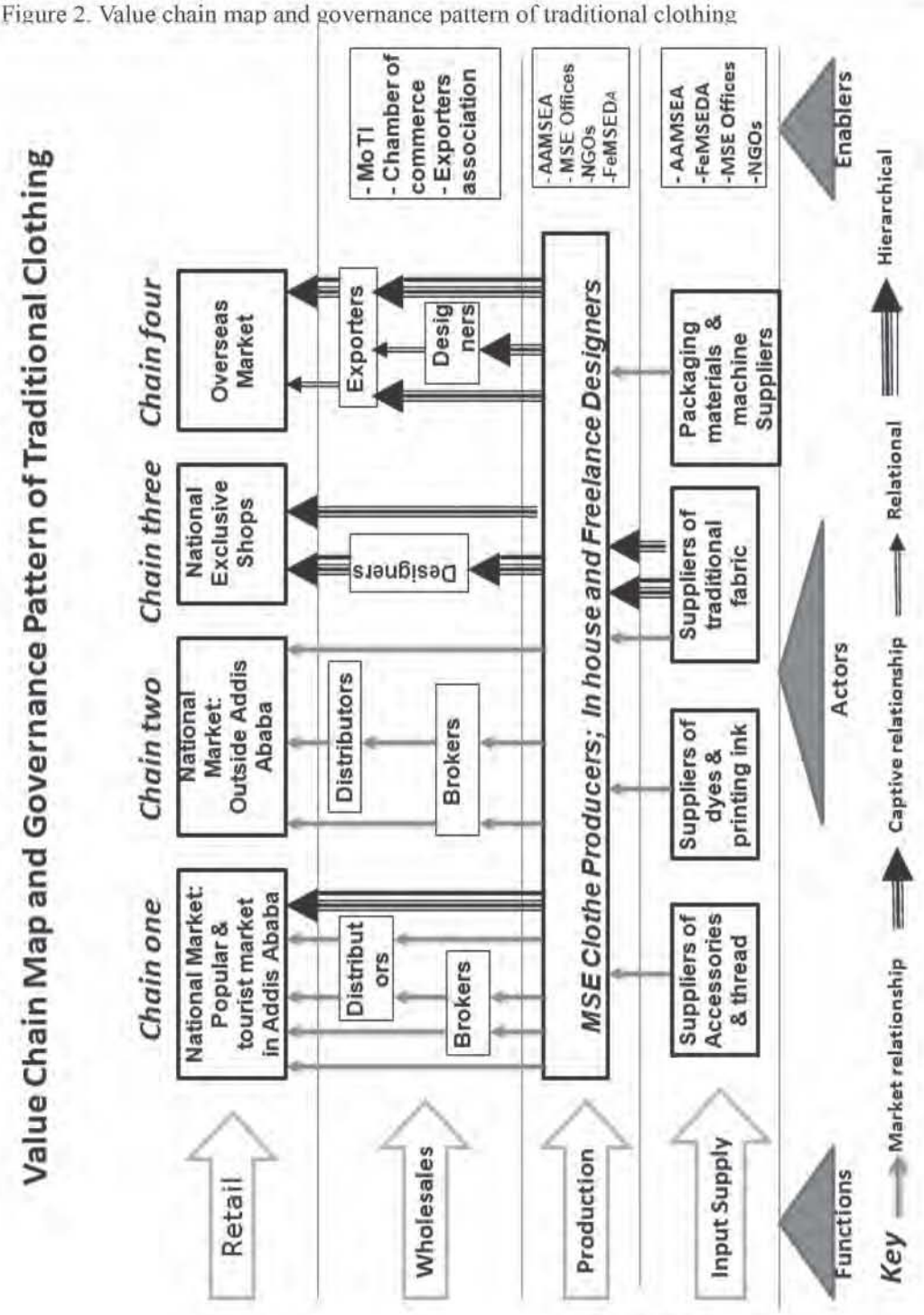
carefully evaluating their skills since manufacturing traditional cloths requires profound talent and care. Some of the exporters closely work with designers and source cloths from them as well (Figure 2). In the case of designers, they can also outsource to producers when orders are high and they apply strict control to ensure quality.

Exporters sell their product either to end users abroad via their own retail shops, retailers outside Ethiopia or individual buyers abroad. The governance pattern in this chain is varied. The chain is particularly dominated by hierarchical relationship where cloth producers have been working as wage employees and the exporter manufactures cloths in vertically integrated structure. The relationship between exporters from Ethiopia and importers abroad is typified by the relational pattern wherein information flow between them is thick and buyers (importers) and exporters (sellers) define the product together. Exporters learn the preference of buyers in different ways, such as via internet communication, telephone calls, visiting buyers in person, and participation in global trade fairs. Likewise, the relationship between designers and exporters is characterised by relational one since they work together, negotiate on each specification and frequently exchange information. On the other hand, the link between producers and exporters and designers and producers is characterised by captive one in that exporters and designers define the product to be produced and exercise tough control over the producers (Figure 2).

Input suppliers in the traditional cloth chain are MSEs. They supply accessories (like such as elastic tape, buttons, and zippers); thread and dyes (yarn and sewing thread — imported as well as locally produced); fabric — locally produced by weavers, and packaging materials which are mostly imported. Suppliers of accessories, thread, and dyes are mainly retailers although a few of them are

engaged in wholesales of inputs. All of the weavers are micro and small enterprises that produce different kinds of fabric mostly from locally grown, ginned and spun cotton. The governance pattern between producers and input suppliers in chains one and two tends to be market-based. Suppliers provide different kinds of inputs with varied qualities and producers select what they want, pay money, and pick the inputs to their workplace. However, in chains three and four where designers and exporters own vertically integrated firms, some weavers (fabric suppliers) operate as part of the firms that are vertically integrated. Otherwise, weavers supply their products to different markets in Addis Ababa (mostly to *Markato*, *Shiro Meda*, *Addisu Gebeya*, *Kechene*, *Shola Gebeya*, *Jan Meda* and *Kolfe Gebeya*) (see Figure 2).

Figure 2. Value chain map and governance pattern of traditional clothing



Source: Own survey

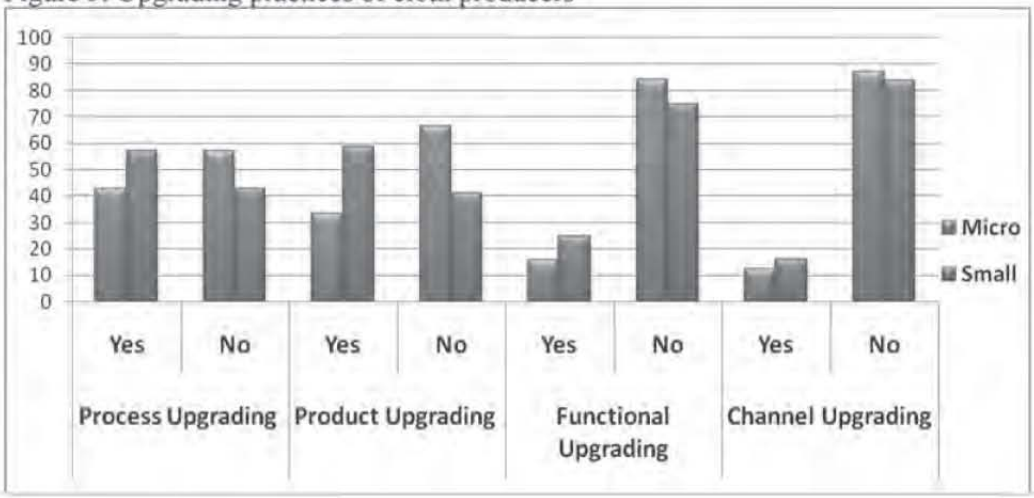
Upgrading Practices of Cloth Producers

This sub-section of the study examines four types of upgrading: process, product, functional, and channel upgrading. First, respondents were asked to state whether they adopted any type of upgrading in their firm. Then, each type of upgrading was measured by different indicators particularly associated with core strategies or actions taken by each enterprise hitherto.

Process Upgrading

Bloom *et al.* (2007) note that process upgrading reduces the cost of production and may be attributable to improved organisation and management of production process or to the use of improved technology. This study finds that both micro and small enterprises adopted some sort of strategy to upgrade their production processes. A little more than half of the respondents (57%) from small enterprises and about 43% from micro enterprises reported that they took actions to improve the production processes of their enterprises (Figure 3). The major strategies adopted by micro enterprises to improve their production processes include investment to acquire new machinery or equipment (44.4%) and changing the layout of production process (29%). On the other hand, the major strategies for small enterprises to improve production system encompass changing the layout of production process (32.5%), adopting a system that expedites delivery (21.3%) and investment in new machines or equipment (18.8%).

Figure 3. Upgrading practices of cloth producers



Source: Own Survey

It was clear from observation and group interview that a number of micro enterprises have invested resources and purchased electric operated sewing machines. The majority of those who undertook such investment indicated that the change from manually operating to electrically operating sewing machine enabled them to increase cloth production per day. While micro enterprises give priority to investment in machines, small enterprises focus on changing the layout of production process. This may be due to the fact that many small enterprises already have electrically operated sewing machines and, as a result, give priority to improving layout of production process where all functions, such as input storing, designing, cutting, sewing, finishing, and packaging are undertaken in close proximity to reduce wastage of resources (time, effort, etc).

Product Upgrading

Product upgrading focuses on introducing new products or improving old products faster than rivals (Kaplinsky and Morris, 2003). It involves a qualitative improvement in the product that makes it more desirable to consumers (Bloom *et al.*, 2007). Therefore, this type of upgrading could enable MSEs to earn a higher

unit price (Dunn *et al.*, 2006). Regarding product upgrading practices, 33.3% of the respondents from micro and about 59% from small enterprises reported that their enterprises adopted some strategies to advance cloth products (Figure 3). This finding indicates that both types of enterprises have been trying to improve their products. However, similar to the process upgrading, small enterprises are improving their product more than micro enterprises do since there are more small than micro enterprises reporting different upgrading strategies except for the strategy of developing new products. Both types of enterprises reported that the main strategies they adopted to upgrade products include: improvement in product quality (micro 27.7% and small 31%), change in design (micro 23.1% and small 25%), innovation in the usage of inputs, colours and shape of products (micro 23.1% and small 26.1%), and development of new products (micro 23.1% and small 21%).

Functional Upgrading

Functional upgrading encompasses the entry of a firm into a new and higher value-adding function in the value chain (Dunn *et al.* 2006). Particularly, this type of upgrading allows MSEs to increase value added by changing the mix of activities conducted within the firm or moving the locus of activities to different links in the value chain (for example from manufacturing to design) (Kaplinsky and Morris, 2003). The result of this study shows that only a few proportion of micro enterprises (about 16%) and small enterprises (25%) were engaged in non-production activity to acquire new or superior function that could enable them reap the benefits created in the value chain (Figure 3).

Besides production of cloths, only 11.1% of the respondents from micro enterprises and 14.3% of small enterprises were engaged in retailing. Few enterprises (about 8% of micro enterprises and about 9% of small enterprises)

were engaged in the function of designing. However, according to key informant interview, this function is not used for commercial purposes. A small proportion (5.4%) of small enterprises was also engaged in wholesale function. This finding indicates that cloth producers focus mainly on production rather than upgrading to a newer or superior function that could be more profitable. This might be due to shortage of capital, lack of information about upgrading opportunities, low level of knowledge and skills to analyse business environment and weak relationships in the value chain.

Channel Upgrading

Channel upgrading involves selling a product into a new market channel within the value chain (Bloom *et. al.*, 2007). When MSEs perform this type of upgrading successfully, they can enter into a pathway leading to a new, higher value-added end markets, such as local, national, regional and/or global end markets (Dunn *et al.*, 2006). Respondents were asked about whether they entered into a new higher value-added end markets, such as local, national, and global end markets. Except very few micro enterprises (12.7%) and small enterprises (16.1%) that tried to search for a new domestic market, search for global market is nil for micro enterprises and scanty (5.4%) for small ones. Almost none of the enterprises participated in a variety of markets in order to reduce the risks associated with market failure. These findings show that channel upgrading practice is very weak in both types of enterprises. Lack of capacity in terms of capital and knowledge as well as lack of access to useful information regarding various markets were reported as main reasons for weak channel upgrading practices. This weak channel upgrading practice may also be due to weak vertical and horizontal linkages between actors along the value chain.

Factors That Enhance or Impede Upgrading Practices of MSEs

Among the many factors that serve as incentive or disincentive for upgrading practice of cloth producing MSEs, this study focuses on those related to the elements of value chain structure, such as end markets, vertical linkages, horizontal linkages, business services, enabling environment and learning. The following sub-section provides a descriptive analysis of the factors, and is followed by a multivariate analysis to examine their influences.

Marketing Practice and End Markets

The way producers sell their product to end markets as well as demand in these markets may encourage or discourage entrepreneurs to upgrade. For example, favourable market structure, such as information about the market, dependable sales, assistance from buyers, large number of buyers, and high profit would be incentives to producers to improve production process and product quality. Similarly, strong demand in end markets encourages MSEs to upgrade (Dunn *et al.*, 2006). For example, end market demand informs supply chain actors (producers) who in turn build their capacity to meet demand and compete in the marketplace (Barber, 2008). In particular, Nichter and Goldmark (2009) note that an important dimension of growth or potential for growth in MSEs in a value chain is strong demand in the end markets, whether local, regional or international.

MSEs were asked about the conditions of market, and the majority (65%) of respondents from micro enterprises and slightly less than half (48%) of respondents from small enterprises reported that the conditions were unfavourable (Table 1). This was expressed in the form of lack of buyers, low level profit, low bargaining power of producers and lack of information. This finding may indicate that the marketing condition through which enterprises have been selling

their product is not promising, particularly for micro enterprises and the situation could be a disincentive for some owners to make upgrading decisions. However, the marketing condition for slightly more than half of the small enterprises is favourable— implying that some of the small enterprises have better prospect to engage in an array of upgrading activities than the micro ones.

Table 1. Presence of favourable marketing condition

	Micro enterprise		Small enterprise		Total	
Response	Number	%	Number	%	Number	%
Yes	22	34.9	29	51.8	51	42.9
No	41	65.1	27	48.2	68	57.1
Total	63	100.0	56	100.0	119	100.0

Source: Own Survey

With regard to demand, Table 2 shows that 50% of the small and 37% of the micro-enterprises indicated that demand for their products has increased in the last two years. On the contrary, a significant proportion (32%) of the micro- and only 5.4% of the small enterprises indicated that demand for their products has decreased. In general, therefore, micro-enterprises have faced a decline in demand for their products which may discourage them from undertaking upgrading activities.

Table 2. State of market demand for products between 2010 and 2012

	Micro		Small enterprises		Total	
	Number	%	Number	%	Number	%
Increased	23	36.5	28	50	51	42.9
Decreased	20	31.7	3	5.4	23	19.3
No change	20	31.7	25	44.6	45	37.8

Source: Own Survey

The study also found out that among those who reported (both from small and micro enterprises) increase in market demand for their product, 66.7% of them reported having had engaged in process upgrading, 72.5% of them in product,

43.1% of them in functional, and 23.5% of them and, , in channel upgrading practices. The logistic regression analysis results also showed that increased demand in the market significantly influences process and product upgrading (see Section 4.4 of this article).

Vertical Linkages

Product markets usually grow vertically before they grow horizontally (Kula *et al.*, 2006). Thus, the vertical chain must be developed and strengthened before first or subsequent tiers of services emerge. In particular, closer cooperation and coordination among value chain actors enhances value chain competitiveness by reducing transaction costs and increasing the ability of the chain to meet and adjust to consumer demand (Galizzi, 1999).

In this study, the vertical linkages between and among the different firms in the value chain were assessed along the following indicators: presence and kinds of agreements among value chain actors, levels of trust between value chain actors, information about the distribution of benefits in the value chain, and levels of inter-firm cooperation.

Presence and Kinds of Agreements among Value Chain Actors: Mutually-beneficial agreements among vertically-related firms can improve MSEs' access to markets, new skills, and a wide range of services, and can reduce market risks by securing future sales (Kula *et al.*, 2006). The study showed that about 64% of the respondents from small enterprises either always or sometimes made agreement with their buyers about the different aspects of their sales, such as dates of delivery, kinds of product, price, quality and types of inputs. About 55% of the respondents from micro enterprises reported their having made such agreements with buyers. Along the same line, about 78% of buyers and 70% of input suppliers reported that they made agreements in advance with producers.

This finding indicates that the relationship between and/or among value chain actors is typified by some sort of agreement.

The agreements made between and/or among value chain actors, however, are dominated by informal contracts. The majority of the producers (69%), buyers (92.3%) and input suppliers (64.3%) did not make agreements in writings. Instead, most of the agreements are concluded verbally. Both buyers and producers blame each other as being not interested in written agreements. For instance, during key informant interview, one of the buyers mentioned the following:

> *Producers do not want to have [enter] written contractual agreements because such agreements will have legal consequences when either of us breaks them. In my understanding, producers frequently fail to observe verbal agreement made between us. Had the agreement been made in writing, they would have been taken to court. Therefore, they prefer verbal agreement in order to avoid risks.*

Similarly, one of the key informants among producers indicated that:

> *Almost all of the buyers that I am working with avoid formal contractual agreements, since they want to switch from one producer to another if they find minor errors. Since we usually make verbal agreements even without witnesses in place, most of the buyers violate such agreements. I lost a lot of money because of this ugly action of my buyer.*

These statements by the respondents clearly indicate that both buyers and producers do not want to be obligated by their agreement and prefer unwritten agreement since it allows them flexibility. While unwritten agreements imply low potential of enforcement, Bloom *et al.* (2007) indicate that trust between actors of the value chain works very well in situations where there is general absence of enforceable contract to secure agreements. The result in this study, however, shows that trust among actors of clothing value chain is awfully weak.

Trust: Trust is critical to sustaining cooperation (Galizzi 1999; Morris and Barnes, 2004) and to reducing transaction costs (Kula *et al.*, 2006). It is a key element of vertical relationship, particularly when transactions involve advance credits for inputs in exchange for future products, and there is a general absence of enforceable contract to secure these agreements (Bloom *et al.*, 2007). Unfortunately, the level of trust among the value chain actors in this study is found to be extremely weak. For example, more than 75% of the producers reported that they did not trust buyers in business dealings. Likewise, almost 80% of the buyers reported that they did not trust producers. Equally, 64.3% of input suppliers reported that they did not trust their buyers. The low level of trust among the value chain actors implies that vertical linkages among them are weak. This finding is in line with Netsanet's (2009) finding that vertical linkage between different enterprises is weak since entrepreneurs in Ethiopia want to accomplish the job independently due to lack of trust.

Information: Information availability and transparency between vertically-linked firms help a value chain to effectively respond to changes in market demand (Choudhary, 2008). For instance, information about the location where buyers sell products and the price of the products to consumers will not only ensure transparency among the actors in the value chain but also helps producers to properly respond to the market demand. In the same way, knowledge about the profit margins of brokers and producers will help buyers properly understand the prices they pay whenever they purchase from producers and brokers. Transparency in the distribution of benefits is therefore beneficial to all actors engaged in the value chain.

Table 3 shows that about three-quarter (75%) of the micro and almost 60% of the small enterprises reported that they did not know about the marketplace where

their buyers sold the product they supplied. In the same way, the vast majority of the respondents from micro (93.2%) and small enterprises (80%) did not have information about the prices their buyers charge for the product they supplied (Table 3).

Table 3. Producers' knowledge about buyers' marketplace and price

Questions and responses	Micro		Small		Total	
	Frequency	%	Frequency	%	Frequency	%
Knowledge about buyers' market place						
Yes	15	25.4	23	41.1	38	33.0
No	44	74.6	33	58.9	77	67.0
Knowledge about buyers' consumer price						
Yes	4	6.8	11	19.6	15	13.0
No	55	93.2	45	80.4	100	87.0

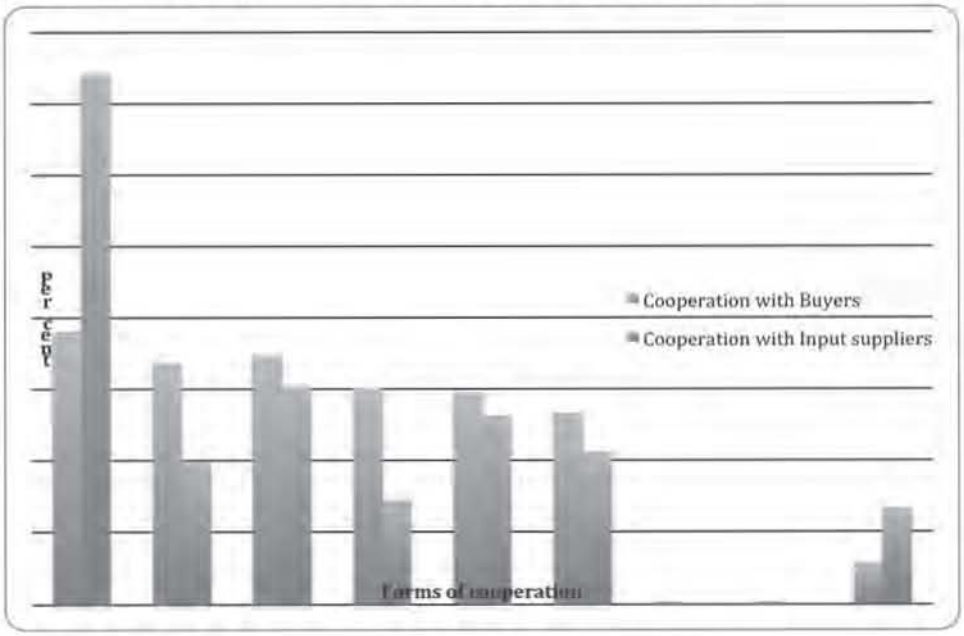
Source: Own Survey

Buyers are also ignorant about the profit margins of brokers and producers. Ninety per cent of the buyers do not know brokers' profit margins and 86% of the buyers do not know producers' profit margin. In general, therefore, the clothing value chain is constrained by poor information flow and low transparency in the distribution of benefits among actors.

Inter-firm Cooperation: Figure 4 presents the data about inter-firm cooperation between producers and buyers and between producers and input suppliers. Inter-firm cooperation is more prevalent between producers and buyers than between producers and input suppliers, except for information exchange. This implies that producers have more working relations with their buyers than with their input suppliers. It also reveals that the main type of cooperation producers engage both with buyers and input suppliers is in information exchange. Interviews conducted

with producers revealed that they seek information from buyers about additional or new orders and agreement changes, if any. Producers and input suppliers also exchange information on the same issue.

Figure 4. Producers' cooperation with buyers and input suppliers



Source: Own Survey

It was found that producers who reported that they cooperated in the area of information exchange are also engaged in upgrading practices more than those who did not cooperate in this area. For example, among the cooperating producers, 58% reported that they were engaged in process upgrading; 63% in product upgrading; 21% in functional upgrading, and 13.6% in channel upgrading practices. Nevertheless, result of the logistic regression analysis (see Section 3.4) shows that the influence of cooperation in this area on process and product upgrading of cloth producers is not statistically significant.

Other important forms of cooperation between producers and buyers involves

expediting delivery, product development, product specification, quality control and improvement (Figure 4). With regard to delivery, usually buyers strongly push enterprises, particularly those producing traditional cloth to manufacture cloths within a specified time wherein the demands for new traditional clothes drastically increase, such as holiday seasons. In relation to cooperation concerning products, producers claimed that sometimes buyers come up with new orders involving new type of cloth product to be produced with its specification (design). However, they asserted that this order is followed by strong control, aimed not just to help producers improve the quality of the product, but to minimise design loss, quality cutback, etc on the part of producers. Producers' cooperation with input suppliers with regard to product development is relatively less though expediting delivery remains to be an important area.

It is surprising to see that other forms of cooperation such as technological upgrading, human resource training and marketing which are critical for upgrading of MSEs were either nil or exist in very minimum level among chain actors (Figure 4). The results suggest that inter-firm cooperation between value chain participants is weak and, as a result, joint action that could boost mutual benefit is not well developed.

Horizontal Relationship

Horizontal relationships such as formal and informal producers' groups provide a means to improve MSEs capacity and reduce transaction costs (Bloom *et al.*, 2007), create economies of scale, and contribute to increased efficiency and competitiveness of the industry (McCarthy, 2008). This study found out that the majority (85.5%) of the respondents from micro enterprises and more than half (55.4%) from small enterprises reported that they did not join any producers' association. This implies that horizontal linkage among cloth producers

particularly among micro enterprises is limited. Lack of information, mistrust, and differences in capacity were mentioned as major reasons that restrained MSE entrepreneurs to join associations.

The limited horizontal linkage among cloth producing enterprises is also realised by experts, government officials, and leaders of garment manufacturing associations. For example, one of the interviewees from government officials mentioned that 'linkage among cloth producers is very weak, and link between cloth producers and large garment manufacturers is almost non-existent'. One of the managers of garment manufacturing associations also explained that, hitherto, none of the micro and small enterprises has joined Cloth Producing Association, which otherwise could have been an opportunity for MSEs to learn, increase their bargaining power, and enjoy the benefits of collaboration. Likewise, an interviewee from the Ethiopian Textile Industry Institute noted that none of the micro and small enterprises is linked with medium and large garment manufacturing firms although he asserts that his institute has plan to facilitate such type of linkages in the future. This finding corresponds with results of different studies conducted on Ethiopian MSEs which reported weak horizontal relationships and lack of joint operation (Netsanet, 2009)

Business Services Provided to Producers

In order for small producers to compete and upgrade in response to market opportunities, they must have access to new skills, know-how, and learning on a continuous basis (Kula *et al.*, 2006). Access is needed for varied supporting services that could increase operational capacity of MSEs, facilitate their access to markets, enhance their management skills, boost their financial efficiency and avail information (Campbell, 2008).

Table 4 shows that producers receive different types of services both from

buyers, government and non-government agencies. In terms of support from buyers, a high proportion of micro enterprises (54%) and small enterprises (38%) mentioned that they receive cash advance. This was confirmed by 43% of buyers. In addition, 44% of micro enterprises and 34% of small enterprises also indicated that they receive advance of inputs from buyers.

Table 4. Services provided from buyers and other sources to producers

	Service provided by buyers		Service provided by other sources	
	Micro	Small	Micro	Small
Form of service reported as "yes"	%	%	%	%
Cash advance or cash credit	54	37.5	15.9	32.1
Advances of inputs: fabric, thread, accessories, etc	44.4	33.9	4.8	3.6
Assistance, advice or training in production technique	3.6	1.8	22.2	48.2
Assistance or training on how to meet local standard	6.3	1.8	14.3	26.8
Assistance or training on how to meet international standard	3.2	0	1.6	5.4
Assistance, advice or training with new design	6.3	0	9.5	23.2
Marketing assistance or help finding other buyers	4.8	5.4	19	44.6
Management or business training	0	0	15.9	58.9
Training in team management or leadership skill	0	0	12.7	48.2
Research assistance	0	0	0	1.8
Credit for personal needs or emergencies	0	0	1.6	7.1

Source: Own survey

The same support was mentioned by 24% of buyers as being provided to producers. In general, therefore, buyers' support is dominated by credit and input advances. The provision of other types of assistance or trainings associated with production techniques, meeting local and international standards, design, management and business is limited or minimal (Table 4). This implies that embedded services that could enhance the capacity of producers and enable them to upgrade are missing in the value chain.

In terms of services provided by other sources (governmental and non-governmental organisations), a significant proportion of respondents from small enterprises reported that they received assistance in the area of management or business training (58.9%), production technique training, leadership skills (48.2%), marketing (44.6%), and cash credit (32.1%) (see Table 4). Conversely, assistance or training in production technique was the most frequently reported form of support among micro enterprises (22.2%) followed by management training and cash credit (15.9%), training on how to meet local standard (14.3%), and training in team management or leadership skills (12.7%). These responses indicate that both enterprises have received some sort of supports from government and non-government agencies, though small enterprises received more support than micro enterprises. This might be one of the incentives that could facilitate the upgrading practices of small enterprises. Nevertheless, data obtained from interview show that the array of services are not devised according to the needs of micro and small enterprises under different stages, such as start-up, embryonic, and development stages. Their usefulness therefore needs to be scrutinised thoroughly.

Business and Enabling Environment

Building a business-friendly enabling environment that offers MSEs a chance to compete is necessary for broad-based growth (Goldmark and Barber 2005). Research shows that a good business environment boosts the growth of small firms more than it boosts large-firm industries (Ayyagari and Maksimovic, 2008). On the other hand, unfavourable business environment constrains upgrading possibilities for small and micro enterprises. Respondents in this study indicated that unfavourable business environment constraining their upgrading practices is marked by lack of finance or capital (84.9%), high level of inflation (84%), unpredictability or fluctuation of prices (80.7%), low purchasing power of the

society (75.6%), lack of access to information about upgrading opportunities (73.1%), lack of access to market opportunities (73.1%), lack of machineries or tools (73.1%), power interruption (60.5%), and lack of access to quality inputs (58.8%). The government should, therefore, ameliorate the situation in order to facilitate firms' upgrading endeavours.

Learning

Learning is a key to the upgrading process. Firms acquire new methods of production and new skills to handle customers and to respond to markets through the learning processes. As can be seen from data in Table 5, the exposure of cloth producer micro and small enterprises to formal training is minimal, such that barely 18.3% of respondents from micro enterprises and 12% from small enterprises reported having attended such training. Family (41%) and previous employments (19.7%) are the two most important sources of learning for small enterprises while own experience (31%), previous employment (22%) and family (17%) are the three most important sources of learning for micro-enterprises.

Table 5. Responses on method of skill learning employed by cloth producing micro and small enterprises

	Micro		Small		Total	
Method of skill learning	N	%	N	%	N	%
Family	14	17.0	27	41.0	41	27.7
Previous employment	18	22.0	13	19.7	31	20.9
Formal training	15	18.3	8	12.1	23	15.5
Friends	10	12.2	8	12.1	18	12.2
Other (Own experience)	25	30.5	10	15.1	35	23.7
Total	82*	100.0	66*	100.0	148*	100.0

Source: Own Survey

*The sum is greater than the sample on account of multiple answers

The fact that formal training is a less important method of learning may imply that entrepreneurs may have been less exposed to modern techniques of production as well as technologies which could be the sources of upgrading and competitiveness.

This is because absorption and utilisation of new technology often demand that enterprises arrange for formal training for relevant employees, including owners (Adeya, 2003). This finding corroborates the argument of Gaillard and Beernink (2001) who assert that generally small business entrepreneurs receive their training in the informal sector, either on the job or through an apprenticeship.

Results of Logistic Regression Analysis

A logistic regression analysis was employed to examine the influences of some of the key variables from the elements of value chain structure on upgrading practices of cloth producing enterprises[4] The logistic regression model estimates the probability that a given individual will fall into one outcome group or the other. In other words, it predicts the logit of Y from X (Peng and So, 2002). As can be seen below, we used"π"to represent the probability that Y=1 (probability of the outcome of interest under variable Y), in our case this represents MSEs that practiced upgrading. Likewise, we defined 1-πas the probability that Y=0, which represents MSEs that did not practice upgrading. We write these probabilities in the following form:

$$\pi = P(Y = 1|X1, X2,\ldots, Xn) \quad \ldots\ldots (1)$$

$$1-\pi = P(Y = 0|X1, X2,\ldots, Xn = \quad \ldots\ldots (2)$$

In Equation 3 below, we use the model for the natural logarithm of the odds (log odds) to favour Y = 1.

$$\ln \frac{P(Y = 1|X1, X2,\ldots, Xn)}{1-P(Y = 0|X1, X2,\ldots, Xn)} = \ln \frac{\pi}{1-\pi} = \beta_o+\beta_1X_1+\beta_2X_2+\ldots\beta_nX_n + \varepsilon_i \quad \ldots\ldots (3)$$

where, π is the odds ratio favouring upgrading practices of cloth producing MSEs (i.e, th

Probability of practicing upgrading ÷ Probability of not practicing it), $\beta_0$is the Y intercept,β_i are slope parameters, and Xs are a set of regressors.

By using the inverse of the logit transformation of Equation (3), we get the following odds prediction equation:

$$\pi = P(Y = 1|X1, X2, ..., Xn) = \frac{e^{\beta_0+\beta_1X_1+\beta_2X_2+\cdots+\beta_n n_x n}}{1+e^{\beta_0+\beta_1X_1+\beta_2X_2+\cdots+\beta_n n_x n}} = \frac{1}{1+e^{-(\beta_0+\beta_1X_1+\beta_2X_2+\cdots+\beta_n n_x n)}} \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (4)$$

This method is mainly designed to maximise the likelihood of getting the data given its parameter estimates (Peng and So, 2002).

Base on this, we specified our model as follows:

$$\ln \frac{\pi}{1-\pi} = \beta_0+\beta_1 Sex+\beta_2 yearsofoper+\beta_3 favorable+\beta_4 demand1+\beta_5 captive+\beta_6 relational+\beta_7 C8trustbuyers+\beta_8 in\text{-}foexchange+\beta_9 D2.3traing+\beta_{10} D1.8mgttraining+\beta_{11} horizontal+\varepsilon \quad \ldots\ldots\ldots\ldots\ldots\ldots (5)$$

The model included dependent variable represented by π (the probability that Y=1) (upgrading – process or product), 11 predictors and the error term that captures all omitted or ignored variables from the model but may influence regress and variable (upgrading).

As indicated above, the outcome variable (upgrading) was coded as 1 for those enterprises that practiced upgrading (process or product) and zero otherwise. Predicators were: sex of the respondents— (coded as 1 for male and 0 for female); age of the enterprise (yearsofoper) —(measured by the number of years); the favourableness of the market outlets via which cloth producers sell their product (favourable) – (coded as 1 for yes and zero otherwise); overall demand for the cloth product (demand1) – (coded as 1=decreased, 2=no change, and 3=increased); captive pattern off governance (captive) — (coded as 1=my buyer dictate the terms/I depend on my buyer and zero otherwise); relational pattern of governance (relational) — (coded as 1= I and my buyer have equal rights relationship/ mutual dependence and zero otherwise); trust between producers and buyers (C8trustbuyers) — (coded as 1= yes there is trust and zero otherwise); information

exchange between and/or among value chain actors (in-foexchange) — (coded as 1=yes for there is information exchange and zero otherwise); technical training on cloth production (D2.3traing) — (coded as 1=yes for the training acquired and zero otherwise); management or business training (D1.8mgttraining) — (coded as 1=yes for the training acquired and zero otherwise); and horizontal linkage (horizontal) — (measured by whether enterprises joined associations engaged in similar activities and coded as 1=yes for joining and zero otherwise).

A test of complete model against a constant only model for both dependent variables was statistically significant, implying that the predictors as a set unfailingly differentiated between enterprises that undertook and failed to undertake process and product upgrading *(Chi square = 34.452, $p < .000$ with df = 11 for process upgrading and Chi square = 42.317, $p < .000$ with df = 11 for product upgrading)* (see Annexes 1 and 2).

Nagelkerke's R^2 of 0.335 and 0.402 for the influence of predictors on process and product upgrading, respectively, indicated a moderate relationship between predictions and grouping. Prediction overall success was 72.3% for process upgrading (74.6% for yes engaged in process upgrading and 70% for not engaged) and was 75.6% for product upgrading (77.9% for yes engaged in product upgrading and 72.5% for not engaged) (Annexes 1 and 2).

The Wald criterion demonstrated that when all other variables in the model are controlled, only increase in demand in the market (at p=0.011) and captive pattern of governance (at p=0.006) positively influenced the process upgrading practices of cloth producing MSEs. Other variables such as, sex, age of the enterprise, favourableness of market conditions, relational pattern of governance, producers' trust towards their buyers in meeting agreements, cooperation in the area of information exchange, training in production technique, training in management

skills and association membership do not influence process upgrading (Annex 1).

On the other hand, four variables, namely: 1) increased demand in the market, 2) captive pattern of relationship, 3) relational pattern of governance, and 4) training on production techniques were significant on product upgrading model. This implies that the existence of these factors increases the likelihood of enterprises' towards adoption of different strategies to upgrade their product (see Annex 2).

The EXP (B) values for demand (3.402 for process upgrading and 3.229 for product upgrading) indicates that the likelihood of cloth producing MSEs to engage in both process and product upgrading increases three times more in firms which faced increase in demand than those which faced no change in demand (Annexes 1 and 2). In other words, firms which faced increased demand undertake different strategies to upgrade their production process and product than those which did not. Moreover, the EXP (B) values for captive pattern of governance (4.291 for process upgrading and 4.448 for product upgrading) (Annexes 1 and 2) indicate that those enterprises which have captive pattern of relationship with their buyers are four times more likely to engage in process and product upgrading than those whose relationship is different from captive pattern. On the other hand, enterprises that have relational pattern of governance with their buyers are seven times more likely to engage in product upgrading than those which do not have such pattern of relationship. These findings indicate that governance and different forms of relationships are critical for influencing firms upgrading activities. The result also shows that training makes difference since those enterprises which got support in the form of training in production technique are four times more likely to engage in product upgrading than those which did not receive training.

Conclusion

The main purpose of this study is to scrutinise the value chain of cloth production in micro and small scale enterprises with the aim of understanding the governance pattern and upgrading practices in the value chain. The analysis is based on a sample of 222 respondents selected from diverse actors of the value chain. The results of this study thus provide some interesting insight about the value chain of cloth production and how its dynamics and structure affect upgrading practices of the MSEs. It is found that the participation of almost all modern and a greater part of traditional cloth producing enterprises is limited to the domestic value chain although a handful of traditional cloth producing enterprises are connected to the global market, through exporters. Multiple governance patters are observed in the value chain where arm's length market relationship became dominant in the chain. Governance, however, is important as it is evidenced that captive and relational patterns of governance are more likely to influence process and product upgrading.

While cloth producing MSEs to some extent improved their production process efficiency (process upgrading) and quality of the cloth product (product upgrading), their attempt to undertake functional and channel upgrading is very weak. Nevertheless, small enterprises have more propensities to improve their production process than micro ones. This tendency is mainly due to difference in capability and access to different services to exploit varied incentives presented in the value chain. Enterprises whose demand in the market is increasing are three times more likely to undertake different strategies to upgrade their production process and product than those which did not. Therefore, it is safe to conclude that increase in demand in the end market is the key driver of process and product upgrading in the value chain.

The value chain is found out to be greatly fragmented in terms of both vertical and horizontal linkages between and/or among actors. This problem is chiefly owed to internal constraints such as the pervasiveness of informal agreements, lack of transparency, limited knowledge and information flows, weak learning practices, capacity variation, and low level of trust among actors of the value chain. These internal weaknesses, coupled with external ones (weak and biased support from concerned bodies, lack of embedded services, and low demand in the end market) impeded the upgrading practices of the cloth producing MSEs.

In general, the findings of this study suggest the need to strengthen linkages between firms so that firms could mutually benefit and become competitive. Since firms need to upgrade, it is critical that demand need to be stimulated, training in production technique need to be strengthened and patterns of relationships and governance need to be closely examined.

End Notes

1. The second smallest tier of government in Addis Ababa City Administration
2. The smallest tier of government in Addis Ababa City Administration.
3. Micro enterprises are those with a maximum of 10 workers while small enterprises are those with employees between 11 and 50. This categorisation follows the definition given by the Ethiopian Central Statistical Authority.
4. Process and product upgrading were taken as dependent variables. Functional and channel upgrading were dropped from regression analysis since the number of respondents who undertook such types of upgrading were small, violating the minimum size of observation for logistic regression.

References

Adeya, C.N. 2003. *Sources of Training in African Clusters and Awareness of ICTs: A Study of Kenya and Ghana*. Maastricht, The Netherlands: United Nations University, Institute for New Technologies, #2003-6. Ali, M. 2007. The Competitiveness and Viability of Cluster Based Cottage Indus-tries: The Case of Handloom Sector in Ethiopia. EDRI (Ethiopian Development Research Institute) Working Paper Series, Addis Ababa, Ethiopia.

Amin, M. M. 2007. *Results of Ethiopia Investment Climate Survey: Policy and Productivity*. Washington D.C: World Bank.

Atkinson, R. and Flint, J. 2001. 'Accessing Hidden and Hard-to-Reach Populations: Snowball Research Strategies'. *Social Research UPDATE, University of Surrey*.

Ayyagari, M. and Maksimovic, V. 2008. Industry Growth, Firm Size and the Business Environment, microreport #127, United States Agency for International Development.

Barber, T. 2008. Engaging End Market Buyers in Value Chain Development. *USAID Briefing Paper* , (AMAP).

Berihu Assefa. 2008. *Determinants of the Performance of the Garment Industry in Ethiopia: The Case of Addis Ababa*. Addis Ababa, Ethiopia: Ethiopian Development

Research Institute (EDRI).Bloom, D., Dunn, E., Clark C. J., et *al*. 2007. Integrating MSEs into Value Chains: Evidence from Guatemalan Horticulture and Handicrafts. AMAP BDS Knowledge and Practice, micro REPORT #78, USAID/G/EGAT/MD. Washington, D.C.: ACDI/VOCA.

Bloom, D. *et al*. 2008. *Analyzing the Integration of Micro and Small Enterprises into Value Chains: Evidence from Tanzanian Horticulture*. USAID Washington, D.C.: ACDI/VOCA.

Bryman, A. 2012. *Social Research Methods*. (4th ed.). London: Oxford University Press.

Campbell, R. 2008. *The Value Chain Framework Briefing Paper*. Washington, D.C.: AC-DI/VOCA.

Choudhary, V. 2008. *Strengthening Vertical Linkage, Briefing Paper.* USAID. ACDI/ VOCA.

Dunn, E. and Villeda, L. 2005. Weaving Micro and Small Enterprises into Global Value Chain: The Case of Guatemalan Textile Handcrafts. MicroREPORT #31, USAID, Washington, D.C.: ACDI/VOCA.Dunn, E., Sebstad, J., Batzdorff, L., and Parsons, H. 2006. Lessons Learned on MSE Upgrading in Value Chains: A Synthesis Paper. AMAP BDS Knowledge and Practice microREPORT #71, USAID/G/EGAT/MD. Washing-ton, D.C., ACDI/VOCA.

Ernst, U. F. W. 2004. *Hidden Sources of Growth? Looking at Micro Enterprises Through the Competitiveness Lens: A Review of the Evidence.* Washington, D.C., USAID

FDRE and ILO. 2009. Decent Work Country Programme (DWCP), Ethiopia, 2009–2012: A Joint Government, Workers and Employers' Organizations Program.

Supported by the ILO within the context of PASDEP, Addis Ababa, Ethiopia.
FeMSEDA and MoTI. 2004. Ethiopian Handloom Product Export Market Study. Addis Ababa. Retrieved on October 15, 2011 from http://www.bds-ethiopia.net/sector-library/handloom-report.pdf.

Gaillard, H. and Beernink, A. 2001. —The Urban Informal Manufacturing Sector in Tanzania: Neglected Opportunities for Socio-economic Development. ***In***: Szirmai, A. and Lapperre, P. (Eds.), *The Industrial Experience of Tanzania*. London: Palgrave Publishers Ltd. Galizzi, G. and Venturini, L. 1999. Vertical Relationships and Forms of Cooperation in the Food Supply Chain: Is a Non-Zero Sum Possible? Paper Presented at the 1999 IAMA Agribusiness Forum: Florence, Italy.

Gereffi, G. 1994. The organization of buyer driven global commodity chains: How U.S. retailers shape overseas production networks. In: Gereffi, G. and Korzeniewicz, M. (Eds.), *Commodity Chains and Global Capitalism*. London: Praeger.
Gereffi, G. 1999. International Trade and Industrial Upgrading in the Apparel Commodity Chain. *Journal of International Economics,* 48: 37–70, Duke University, Durham, USA.

Gereffi, G., Humphrey, J. and Sturgeon, T. 2005. The governance of global value chains. *Review of International Political Economy,* 12:1 78–104, Taylor and Francis Ltd.

Goldmark, L. and Barber, T. 2005. Trade, Micro and Small Enterprises, and Global Value Chains. MicroREPORT #25. Washington, D.C., United States Agency for International Development.

Guiliani, E., Pietrobelli, C. and Rabellotti, R.2005. Upgrading in Global Value Chains: Lessons from Latin American Clusters. *World Development*, 33(4): 549–573.

Hansson, G. 2004. Ethiopia: Economic Performance and the Role of the Private Sector. Country Economic Report 2004:4. Swedish International Development Cooperation Agency (SIDA), Stockholm. Retrieved on November 3, 2011 from http://www.sida.se.

Hellin, J. and Meijer, M. 2006. Guidelines for Value Chain Analysis. Retrieved from http://www.fao.org/fileadmin/templates/esa/LISFAME/Documents/Ecuador/value_chain_methodology_EN.pdf on October 10, 2011.

Humphrey, J. and Schmitz, H. 2000. Governance and Upgrading: Linking Industrial Cluster and Global Value Chain Research. *IDS Working Paper* No. 120. Brighton, Institute of Development Studies, University of Sussex.

Humphrey, J. and Schmitz, H. 2001. Governance in Global Value Chains. *IDS Bulletin* 32.3, 2001, Institute of Development Studies.

Humphrey, J. and Schmitz, H. 2002. How Does Insertion in Global Value Chains Affect upgrading in industrial clusters? *Regional Studies* **36**(9): 1017–1027.

Humphrey, J. 2001. Governance in Global Value Chains. *IDS Bulletin* **32**(3): 3.

Humphrey, J. 2003. Opportunities for SMEs in Developing Countries to Upgrade in a Global Economy. *SEED Working Paper* No. 43. Geneva: International Labour Office.

JMCS and AAMSEDA. 2010. Performance, Challenges and Prospects of Micro and Small Enterprises in Addis Ababa (2004 – 2009), Amharic Version, Addis Ababa, Unpublished.

Kaplinsky, R., and Morris, M. L. 2003. *A Handbook for Value Chain Research Institute of Development Studies*. University of Sussex and School of Development Studies, University of Natal.

Kaplinsky, R. and Readman, J. 2001. *How Can SME Producers Serve Global Markets and Sustain Income Growth?* Mimeo, Brighton: University of Brighton and University of Sussex.

Kellow, N. 2007. *Investment Climate and Competitiveness: Improving Access to Finance*. Washington, D.C.: World Bank. Retrieved on November 3, 2011 from http://www.worldbank.org.

Kimeme, J and Mbwambo, A.H. 2009. 'Entrepreneurs' Attributes and Small Scale Apparel Firms' Performance in Tanzania.' ***In***: McCormick, D., Kuzilwa, J.A., and Tegegne Gebre-Egziabher (Eds.), *Industrializing Africa in the era of Globalization: Challenges to Clothing and Footwear.* University of Nairobi Press.

Kula, O., Downing, J. and Field M. 2006. Globalization and the Small Firm: A Value Chain Approach to Economic Growth and Poverty Reduction. *AMAP BDS Knowledge and Practice microREPORT #42, USAID/G/EGAT/MD*. Washington, D.C.: ACDI/VOCA.

McCarthy, S. 2008. Groups, Associations, and Other Horizontal Linkages. *Briefing Paper, ACD/VOCA*.

McCormick, D. and Onjala, J. 2007. 'Methodology for Value Chain Analysis in ICT Industry Frameworks for the Study of Africa'. Paper Prepared for a Special Research Project by African Economic Research Consortium (Nairobi) on ICT Policy and Economic Development in Africa. Institute for Development Studies University of Nairobi, Nairobi, KENYA.

McCormick, D. and Schmitz, H. 2002. *Manual for Value Chain Research on Home Workers in the Garment Industry*. Mimeo, Institute of Development Studies, Nairobi and Sussex.Meyer, R. L. 2007. Analyzing and Financing Value Chains: Cutting Edge Developments in Value Chain Analysis. Paper Presented at the 3rd African Microfinance Conference on *New Options for Rural and Urban Africa*, August 20-23, 2007, Kampala, Uganda.

Morris, M. and Barnes, J. 2004. Policy Lessons in Organizing Cooperation and Facilitating Networked Learning in Value Chains and Industrial Clusters. School of Development Studies, University of KwaZulu-Natal.

Netsanet, J. 2009. Cluster Approach for Enhancing the Productivity and Competitiveness of Micro and Small Enterprises: Case Study on Bamboo Micro and Small

Enterprises. M.A. Thesis, Addis Ababa University, Ethiopia.

Nichter, S. and Goldmar, L. 2009. Small Firm Growth in Developing Countries. *World Development,* Vol. 37, No. 9, pp. 1453–1464.

Peng, J. C-Y. and So, H. T-S 2002. Logistic Regression Analysis and Reporting: A Prime. *Understanding Statistics*, 1(1): 31–70. Lawrence Eribaum Associates.

Pietrobelli, C. and Rabellotti, R. 2006. *Upgrading to Compete: Global Value Chains, Clusters, and SMEs in Latin America*. Washington, DC: Inter-American Development Bank. Accessed from http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=1586023 on October 13, 2011

Schmitz, H. 2004. *Local Enterprises in the Global Economy: Issues of Governance and Upgrading*. Cheltenham, Elgar.

Schmitz, H. 2006. Learning and Earning in Global Garment and Footwear Chains. *The European Journal of Development Research,* 18(4): 546–571.

Tegegne, Gebre-Egziabher. 2009. 'Small Scale Footwear in Ethiopia: A Value Chain Perspective.' In: McCormick, D., Kuzilwa, J.A., and Tegegne Gebre-Egziabher (Ed.). *Industrializing Africa in the era of Globalization: Challenges to Clothing and Footwear.* University of Nairobi Press.

UNCTAD. 2010. *Integrating Developing Countries' SMEs into Global Value Chains*. New York and Geneva: UNCTAD.

UNIDO. 2009. Agro-Value Chain Analysis and Development: The UNIDO Approach. *A Staff Working Paper.* Vienna.

USAID. 2005. *Value Chain Approach to Poverty Reduction: Equitable Growth in Today's Global Economy*. Washington, D.C.: USAID.

World Bank. 2004. Determinants of Private Sector Growth in Ethiopia's Urban Industry: The Role of the Investment Climate. World Bank/Ethiopian Development Research Institute, Washington. Retrieved on November 3, 2011 from http://www.ethiopia.gov.et/English/MOTI/Resources/Documents/Investment%20Climate%20in%20Ethiopia.pdf.

Annex 1. Logistic regression result for the influence of some key factors on process upgrading

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	34.452	11	.000
	Block	34.452	11	.000
	Model	34.452	11	.000

Model Summary

Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square
1	130.509(a)	.251	.335

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	5.851	8	.664

Classification Table (a)

Observed			Predicted		
			Process upgrading		Percentage Correct
			0	1	
Step 1	Process upgrading	0	42	18	70.0
		1	15	44	74.6
	Overall Percentage				72.3

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1(a)	Sex of respondent (1)	.056	.491	.013	1	.910	1.057
	Age of enterprise	-.014	.036	.143	1	.706	.987
	Favourableness(1)	.776	.480	2.610	1	.106	2.172
	Demand in the market (1)	1.224	.484	6.411	1	.011	3.402
	Captive pattern(1)	1.456	.527	7.644	1	.006	4.291
	Relational pattern(1)	1.196	.674	3.151	1	.076	3.308
	Trust (1)	.032	.518	.004	1	.951	1.032
	Information exchange (1)	.842	.531	2.511	1	.113	2.321
	Training production tech. (1)	.232	.511	.205	1	.650	1.261
	Training management (1)	.568	.499	1.293	1	.255	1.765
	Horizontal linkage (1)	-.350	.502	.485	1	.486	.705
	Constant	-2.437	.731	11.119	1	.001	.087

a. Variable(s) entered on step 1: Sex of respondents, Age of enterprise, favourableness, demand in the market, captive pattern, relational pattern, trust, information exchange, training production tech., training management, horizontal linkages.

Source: Own survey (2012)

Annex 2. Logistic Regression Result for the Influence of Some Key Factors on Product Upgrading

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	42.317	11	.000
	Block	42.317	11	.000
	Model	42.317	11	.000

Model Summary

Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square
1	120.215(a)	.299	.402

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	3.845	8	.871

Classification Table (a)

Observed			Predicted		
			Product upgrading		Percentage correct
			0	1	
Step 1	Product upgrading	0	37	14	72.5
		1	15	53	77.9
	Overall Percentage				75.6

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1(a)	Sex of respondent (1)	-.411	.512	.647	1	.421	.663
	Age of enterprise	.009	.039	.055	1	.814	1.009
	Favourableness(1)	.803	.523	2.353	1	.125	2.232
	Demand in the market (1)	1.172	.525	4.988	1	.026	3.229
	Captive pattern(1)	1.492	.541	7.608	1	.006	4.448
	Relational pattern(1)	2.007	.762	6.933	1	.008	7.444
	Trust (1)	-.168	.562	.089	1	.766	.846
	Information exchange (1)	.324	.546	.352	1	.553	1.382
	Training production tech. (1)	1.459	.575	6.436	1	.011	4.301
	Training management (1)	.381	.516	.546	1	.460	1.464
	Horizontal linkage (1)	.576	.531	1.176	1	.278	1.779
	Constant	-2.179	.740	8.659	1	.003	.113

a. Variable(s) entered on step 1: Sex of respondent, Age of enterprise, favourableness, demand in the market, captive pattern, relational pattern, trust, information exchange, training production tech., training management, horizontal linkages.

Source: Own survey (2012)