

COMMON MARKET FOR EASTERN AND
SOUTHERN AFRICA
LEATHER AND LEATHER PRODUCTS INSTITUTE
(COMESA-LLPI)



KENYA FOOTWEAR CLUSTER:
BASELINE ANALYSIS
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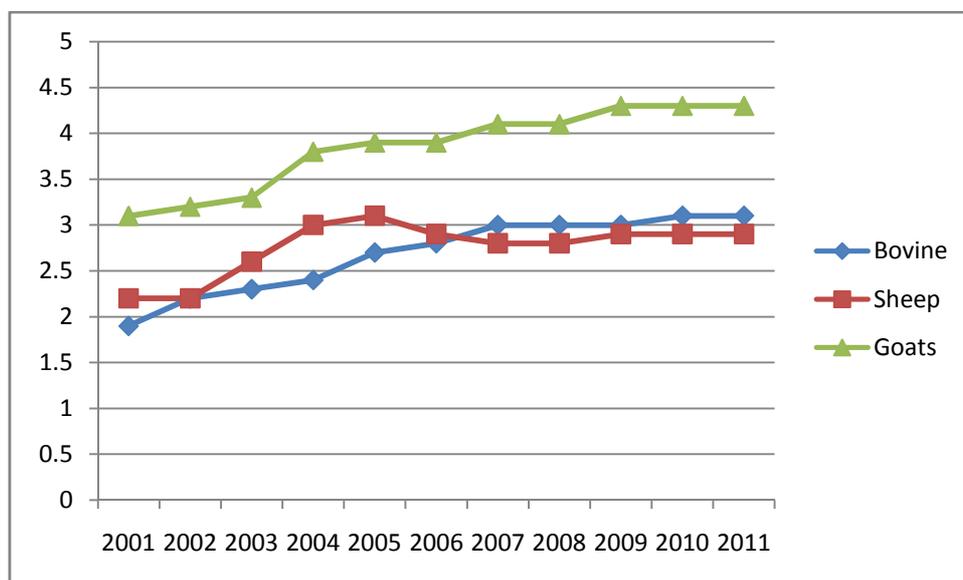
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Introduction

The Kenyan leather industry is one of the country's promising agro-based industries that has immense potential. The base of the value chain is very reach and is ranked third in the COMESA region after Sudan and Ethiopia. The national livestock population² was estimated to comprise of 14 million cattle, 10.9 million goats and 7.9 million sheep. Approximately 1.8 million bovine hides and 4.2 million goats/sheep skins per annum, which translates to 251,000 metric tonnes. The optimum utilisation of the resource has been constrained by the lack of technical, equipment, skills and finance. The figure below shows an upward trend in the production of both hides and skins in the period from 2001 to 2010, which is a positive development for the leather value chain in Kenya and the COMESA region.

Figure 1: Trends in the Production of Hides and Skins (million pieces)



The tanning capacity in the country has been erratic, as it was characterised by closure and reopening of tanneries in face of both domestic and international threats and opportunities. Tanning capacity was estimated at 3.3 million hides and 4 million skins in 1992, when fourteen tanneries were operating. The number of tanneries rose to eighteen in 1998, before declining to eleven in 2002. By 2011, only ten tanneries were operational with an installed tanning capacity of 2.5 million hides and 4 million skins. The level of sophistication in the tanning industry is varied, ranging from small wet blue producing tanneries to the most sophisticated, which can compete globally in terms of output and quality. This situation has built a strong base for further value addition into the production of footwear and other leather goods.

The situation on the ground shows that all producers of leather goods and footwear are able to procure the quantity and the quality of leather they require at any time. The price per square feet averages of US\$1.50, which is very competitive in comparison to the regional average of US\$2.5 per square feet. This is a positive ingredient for enhancing the competitiveness of the footwear and leather goods subsector in the region. The competitiveness of the Kenyan tanning industry is also being felt in other regional countries such as Uganda and Rwanda, which are importing finished leather. This position was

² Livestock Census (UBOS 2008)

confirmed by MSMEs operating in the two countries. The quality of leather exported by Kenya to Rwanda and Uganda was rated superior by MSMEs operating in these countries. However these enterprises are concerned about the prices, which are being charged by middlemen who are importing the product from Kenya. The price for the imported leather ranges between USD3.50 to USD4.00, which is more than double the prevailing price in the source market.

Footwear Market

Leather footwear production in the country currently stands at 10 million pairs per annum (p.a.). This data sharply contradicts with FAO data³, which shows that leather footwear production at around 1.5 million pairs per annum. The difference may be attributed to the fact that FAO data is only based on output from formal and large firms. This scenario implies that MSMEs produces 85 percent of total footwear leather output in Kenya. Evidence on the ground shows that there are thousands of MSMEs operating in several towns and business centres in Kenya making shoes, sandals and other leather products, however their output is not captured in the national production census. The future of the footwear industry in Kenya is anchored on these small enterprises, which most of the time are operating in isolation without support from key stakeholders. The Kenyan Government has taken a giant step by establishing the Leather development Council that is set to play a pivotal role in transforming this sector.

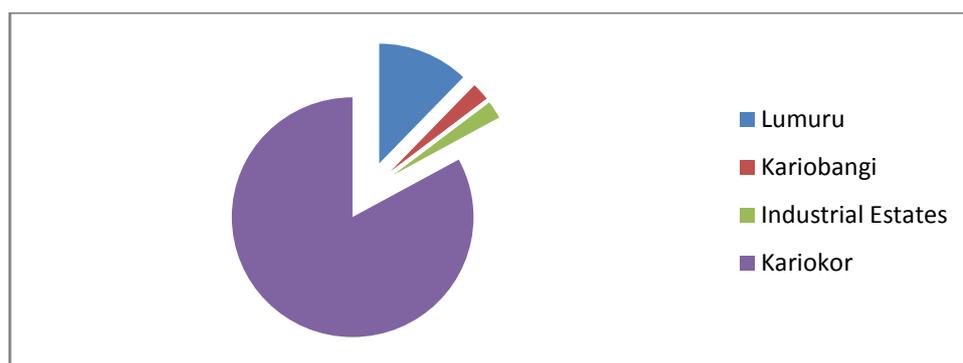
With a shoe per capita of 0.85 pairs, Kenya's total footwear consumption is estimated at 34 million pairs per annum.⁴ This implies that approximately 22-24 million pairs have to be imported to close the deficit. This deficit is a good indicator that there is great potential for the SMEs sector to grow as there is a ready market. It is estimated that Kenya imported US\$97 million and US\$87, 000 worth of footwear from the rest of the world and COMESA respectively in 2011. There is great potential for Kenya to import shoes from Ethiopia given their geographical proximity; however one of the medium enterprise who was interviewed during the survey contends that the imports from Ethiopia were already impacting their business negatively especially in the office man shoes category. He claims that the he has lost business to competitively priced Ethiopian man leather shoes.

In order to capitalise on this huge potential the Kenya Leather Development Council (KLDC) and the Government of Kenya as well as other relevant partners have embarked on a project of ensuring value addition at all levels of the leather value chain and significantly at the micro and small enterprise levels where cobblers are categorized. In the same vein the COMESA Secretariat is also supporting the development of this sector through the development of clusters, which would form the basis of capacity building and harnessing of financial and technical support from national, regional and international stakeholders. Figure 3 shows that the footwear and leather products cluster by location in Kenya, which were interviewed during the survey, which was undertaken in May 2012.

³ World Statistical Compendium for Raw hides and Skins, Leather and Leather Footwear 2010.

⁴ Kenya Leather Development Council

Figure 2: Summary by Area of Location



Out of a total sample of 40MSMEs, 82.9 percent are located in Kariokor, followed by Lamuru with 12.2 percent. A focus on improving the performance of the Kariokor cluster would produce immediate results with regard to volume, quality, and turnover and employment creation. Furthermore there are greater economies of scale in working with Kariokor as there are more enterprises operating in close proximity. The Kariokor Cluster has evolved naturally, however it is very productive and sophisticated; all suppliers of leather, soles, glues and other accessories are located within the same market, which allows the manufacturers to procure all their needs within the same complex. The level of quality and productivity of this market is very high. Most owners of the MSMEs operating in this cluster used to work for established footwear companies and are seasoned footwear makers, however the majority of their employees were trained on the job, hence requires some skills upgrade. The cluster faces acute shortage of equipment, machinery and tools, electricity and suitable premises, as the majority of enterprises are only operating with basic stitching machines and limited working space. The operations in Lamuru are standalone at homesteads; however the level of quality and quantity is also high. The demand of their shoes is very high and they rarely keep stock. Most of them are selling their shoes to retailers up country, down town Nairobi and exports through informal traders from Rwanda, DRC and Tanzania.

The majority of footwear MSMEs is owned by males at 82.9% of the total, however in comparison to other countries, Kenya has a very good representation of females at 14.6 percent. The balance of enterprises is jointly owned, which is also a very unique situation in the countries so far profiled in the region. For details see the summary in the table below.

Table 1: Gender Balance

Gender	Percentage
Male	82.9
Female	14.6
Male and Female	0.04

The majority of enterprise owners are under the age of 50 years, with 65.8% and 26.8% in the 36 to 50 years and 26 to 35 years age group respectively. This is a positive aspect, as these entrepreneurs still have more years to work and improve their operations. Most of the workers employed by these MSMEs are in the 20 to 35 years age group. Most of these people have not received formal training in footwear making and should be the target of the

skills capacity building intervention. Figure three displays the age distributions of the respondents.

Figure 3: Summary by Age Group of Entrepreneurs



The educational level of the footwear and leather goods artisans in Kenya is good, the majority of respondents have attained secondary school and 4.9 percent of them have attained a college diploma. This scenario places this sector on a sound educational background, which makes it easier for these enterprises to learn and adapt to new hardware and soft skills. The table below summarises the educational level of the enterprises.

Table 2: Summary of Educational Levels

Education Level	Percentage
Primary School	34.1
Secondary School	63.4
Diploma	4.9

The majority of the owners of the footwear and leather products MSMEs have received on the job structured training in footwear and leather products from their previous employers. Out of the 40 respondents 82.9 received the training on the job in a structured training programme in established companies. In order to improve the quality of footwear with regard to comfort, shape and finish there is a need for formal technical training, especially for the employees in this enterprise, who have learnt the trade on the job, without a formalised structured training system as is the case in established companies. The training should cover theory, material selection, cutting and finishing, as it was observed that some of the products' finish and shape is quite rudimentary thereby undermining their quality competitive edge in comparison to those from formal and large companies. Figure below displays the distribution on the sources of skills

Table 3: Skills Training Background

Source of skills	Percentage
Self-taught	0
Learning from friend and relatives	17
From previous job	82.9
Vocational	0

Other	0
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Source of Capital

The majority of MSMEs in the footwear and leather products subsector have not received a bank loan to finance their starting up of their business. The model of financing starts ups of small footwear and leather goods enterprises in Kenya are based on own savings, reflecting a high saving culture by Kenya. This is confirmed by the fact that all enterprises that were interviewed confirmed that they one or more bank accounts, which is sharp contradiction with the situation obtaining in Zambia. The absence of loan finance to support these enterprises has undermined the acquisition of appropriate machinery and tools. Details see table below.

Table 4: source of Capital Profile

Source of capital	Percentage
Friends and relatives	0
Own savings	95.1
Bank Loan	4.9
Retirement package	0
Other	0

Identified Constraints

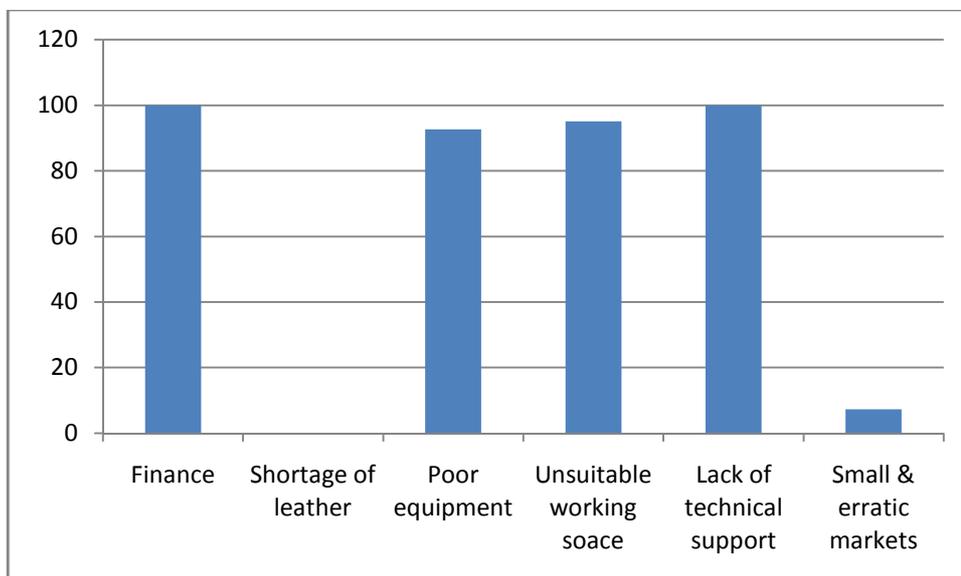
All the respondents considered the shortage of finance, use of old and rudimentary equipment, unsuitable working space and lack of technical support as major constraints that have hampered the production of quality products and productivity. 100 percent of the enterprises considered lack of finance and technical support as major constraints in their operations of their business. Eighty-five percent regarded the poor state and lack of necessary machinery as a major factor that was undermining the manufacturing of quality products. In Lamuru the absence of a common working facility impacted negatively on MSMEs visibility as all of them, which were interviewed operate in their back yards, as shown in the two pictures below.

Figure 4: Backyard factories in Lamuru



At Karikor enterprises are operating in close proximity, however there is an acute shortage of space, impacting negatively on the flow of work. Most of the enterprises are of the view that the transformation of Kariokor by providing expanded working space and the provision of other associated services would enhance the image of the cluster, consequently boosting the visibility of the market to affluent people. The overall impact to the economy would be employment creation and enhancement of the livelihoods of the owners and workers. For details about the constraints impacting the operations at Kariokor see figure 7 below.

Figure 5: Summary of Constraints



Main inputs and Products

The inputs used in the production of footwear are leather, soles, glue and other accessories as listed in table 5 below. The direct material cost of the shoes produced by MSMEs range from a minimum of US\$3.3 for sandals to a maximum of US\$11.56 for boots per pair. The

main cost input is the leather, which contributes 53 per cent, followed by soles at 33per cent. Enterprises reported that all their required inputs are available within Karikor, as there are suppliers who have opened shop within the market to provide leather, soles and all the other required accessories. It was also confirmed that all the leather, soles and other accessories such as shanks are all manufactured in Kenya. This scenario positions Kenya on a sound position to unlock the performance of the shoe making industry. The footwear being produced by these MSMEs is very competitive especially for school shoes, as the average price in most shops in Nairobi for similar products are selling at a price of US\$15 and above. At an ex-factory price of US\$5.28 per pair, MSMEs have the capacity and penetrate to displace established firms that have higher overhead costs. This cost competitive advantage cuts across all products, namely sandals, safari shoes, boots and man office shoes. Despite this advantage most MSMEs products fail to reach formal retail outlets because of quality and supply inconsistency, which formal footwear manufacturers are very good at. See details for the cost breakdown for footwear of the MSMEs, which are operating in the surveyed clusters in Kenya.

Table 5: Costing of Footwear

Materials	Average Costing for footwear (%)
Leather	0.53
Soles	0.33
Insole	0.04
Shanks	0.01
Other	0.10
Total	100

The main products being produced by these clusters are sandals, school shoes and safari shoes; however most of the enterprises are in a position to manufacture other types of footwear such as, fashion shoes and gloves. Twenty four and twelve percent of the enterprises are currently producing safari and school shoes only respectively. The details of the other combinations are shown in the table below.

Table 6: Shoes Models Combinations

Models and Combination of Products	Percentage
Safari Shoes and Wallets	4.9
School shoes	12.2
Boots and school shoes	2.4
Man office shoes	4.9
Sandal	7.3
Sandals and Wallets	4.9
Sandals, Wallets and belts	7.3
School shoes and Man office shoes	2.4
Wallets and belts	7.3
School shoes and Wallets	4.9
Belts	2.4
Safari shoes	24.4
School shoes, wallets and belts	2.4

Type and Estimated Cost of the Machines/Tools in Use and Required

Ninety-seven percent of the enterprises operating in the footwear clusters are facing major challenges with respect to machinery and tools, all the enterprises reported that they were operating with inadequate machinery and tools. 80 percent considered their machines and equipment to be unreliable machinery. Whereas the enterprises want to purchase new machines they are constrained by lack of funds. The unreliability of the stitching machines in particular impact negatively on the durability of the products and also results in distorted stitching patterns. Furthermore it undermines on their productivity because of the slow speed and high frequency of breakdowns of the machines. For example because of lack of suitable machines the majority of the MSMEs use manual mechanisms in the assembling of uppers and soles instead of using a sole press machine. The amount of compression exerted by human hands may not be adequate to achieve a durable bonding between the sole and a shoe upper. Reserve engineering may help to address this problem as simple sole press machines, can easily be designed by artisans by corroborating with technical colleges or universities in Kenya. The pictures below illustrate the proper sole press machine for small to medium enterprise, versus the manual sole press mechanism, which depends on human power

Figure 6: Illustration of a Sole Press and human assembling process in Karikor



The situation with regard to machine combination that is being used by MSMEs is very bad, with only to 4.9 percent of the respondents operating, with a complete production line and 17.1 percent working with a sewing and roughing machine. The majority of enterprises of about 65 percent of those surveyed only operate with a sewing machine and a set of rudimental tools. This situation is further aggravated, because most of the sewing machines are very old and are prone to frequent breakdowns as they were bought as second or third hand and thus have outlived their economic life. The absence of the roughing and skiving machines greatly impact negatively on the finishing of the shoes. This scenario puts MSMEs at a disadvantage in comparison to the established firms with complete production lines, thereby undermining the attractiveness of their products. For details see details in the table below.

Table 7: Summary of Machine Combination per Enterprise

Combination of Machines	Percentage
Tools only	7.3
Complete production line	4.9
Sewing machine	65.9
Sewing and roughing Machines	17.1
Sewing and Sole press	2.4
Skiving machines	2.4

Given the machinery gap summarised in the table above, enterprises were asked to list the machinery and equipment they immediately require in order to boost their productivity, quality and durability of their products. Eighty percent of the enterprises pointed out that it was imperative that they acquire industrial stitching, skiving, sole press machines and lasts. The number required for skiving and sole machines may be reduced since most of these enterprises are operating in close proximity as these machines can be shared, especially in Kariokor. However these machines would require special housing for security. It would not make economic sense for these enterprises to own their own skiving and sole press machines, because of their low scale of operation. The table below summarises the machines requirements of the 40 enterprises and the total cost of the machines.

Table 8: Summary of Machine Requirements

Machines	Responses			Total Market Value (US\$)	
	Possible	ACTUAL	Percentage	Unit Price	Total
Industrial Stitching machine	40	33	82.5	3,500	115,500
Skiving Machine	40	28	70	2,000	56,000
Sole Press Machine	40	26	65	10,000	260,000
Grinder	40	27	67.5	10,000	270,000
Total					701,500

The estimated loan requirements is only for the purchase of equipment of the surveyed forty enterprises, however this figure can easily be extrapolated once the number of MSMEs operating in the whole of Kenya are compiled. Additionally the amount needed to construct or transform the structures at Kariokor was not computed. It is recommended that the Kenya Leather development Council and other relevant stakeholders should work to compile a comprehensive list of MSMEs operating in the whole of Kenya and also estimate the cost of transforming the Kariokor market into a formal footwear cluster. This information would be used for fund raising from various potential sources nationally or internationally.

Gross Margin and Break Even Analysis

Gross margin is central in gauging the viability of a business, this is because every business must generate enough cash to buy raw materials, pay the rent and employ the employees who create the products and services, market and sell them, collect the cash and deposit it

in the bank. This margin also demonstrates a firm's ability to translate sales dollars into profit. A healthy business must generate more cash than it consumes. If it does not, it will die. So the stream of cash that flows into a business is the gross profit. The higher the gross profit margin, the larger the stream. The lower the gross profit margin, the smaller the stream of cash available to fund business operations and investment in future growth. The table below shows that the enterprises in Kenya are generating a minimum and a maximum gross profit margin of 18.9 and 39.4 percent per pair. Sandals are the most profitable generating a gross margin of 39.4% and boots has the lowest at 18.9 percent. These are quite fairly viable ratios for manufacturing enterprise. For details see the table below.

Table 9: Gross Profit Margin per Unit

Shoe Type	Gross Margin (%)
Back to School	23.10
Boots	18.9
Sandals	39.4
Safari shoes	28.36
Average	27.45

Banking, Loan Requirements and Repayment Capacity

SMEs Relationships with Banks

The enterprises, which were interviewed in all the sites, have a strong relationship with banks, as 100 hold bank accounts. This scenario is a good indicator that banks may be willing to extend loans to these SMEs, as they already have a relationship with them. Banks already have a better understanding of the cash flow patterns of these enterprises. For details see table below.

Table 10: Relationships with Banks

Bank account	Responses		
	Possible	Actual	Percentage
Yes	40	40	100
No	40	0	0

Loan Requirements and Repayments Capacity

The loan requirements of the SMEs are informed by the information contained in table 8 above, which lists the types of machines, which they require in order to improve their operations. The total loan requirement for capitalisation for the group of 40 enterprises is estimated at USD701, 500. This implies an average minimum loan per enterprise of USD17, 537. However this loan requirement maybe reduced by ensuring that equipment such as skiving and sole press machines are centralised and shared by enterprises. The centralised machines may be owned by different enterprises within the cluster that will then extend a service for a fee to other enterprises. This loan requirement is subjected to loan repayment capacity (sensitivity analysis) based on their profitability margin estimated in the table below. An array of interest rates is used ranging from 5 to 25 percent. See the details in table below.

Table 11: Loan Repayments Capacity under Different Scenarios

Description	Back to school
Net profit per annum	5300
Loan repayment @ 5% per annum	875
Net after loan repayment	4 425
Loan repayment @ 10% per annum	1 750
Net after loan repayment	3 550
Loan repayment @ 10% per annum	2 625
Net after loan repayment	2 675
Loan repayment @ 15% per annum	3 500
Net after loan repayment	1 800
Loan repayment @ 20% per annum	4 375
Net after loan repayment	925
Loan repayment @ 25% per annum	5300
Net after loan repayment	875

From the sensitive analysis shown above the MSMEs, which were profiled in Kenya have the capacity to repay loans even at 25% capacity, however it is recommended that they should be advanced loans at around 10 % to allow them to plough back some of their earnings.

Summary of Findings

The Kenyan footwear cluster faces the following major constraints:

- The majority of footwear makers have never been formally trained;
- Most of them operate without the basic machinery and tools and depend on manual domestic sewing machines, this has constrained their productivity, quality and durability of their products;
- Lack support from relevant stakeholders, however it is fundamental to note that lately the Kenya Leather development Council has started to support them, through skill development;

Despite these enormous challenges, the shoe cluster holds immense potential because of the following:

- Leather, soles and other accessories are being manufactured in Kenya and are also readily available;
- The MSMEs are producing highly competitive products in terms of price in comparison to the established enterprises;
- The sector is dominated by young and innovative entrepreneur who are eager to learn and prosper;
- Highly trainable because most of them have secondary school education;
- They are already operating in form of a cluster; hence it is possible to quickly facilitate the strengthening of the cluster.

- There are two training schools on leather technology and footwear making in Nairobi and Thika, hence it will be relatively cheaper and convenient to train these footwear makers.

Recommendations

The following interventions are recommended:

- The Kenya Leather development Council and other relevant stakeholders should work to compile a comprehensive list of MSMEs operating in the whole of Kenya and also estimate the cost of transforming the Kariokor market into a formal footwear cluster. Once the Karikor market is transformed, the lessons learnt from this can then be replicated in other areas;
- Capacity building in terms of skills and business management must be extended to these enterprise;
- Stakeholders should consult and identify machines, which can be designed and manufactured by artisans/universities as part of reverse engineering, this would help to reduce the cost of capitalisation;
- The Government and other stakeholders must work to transform natural clusters that scattered all over Nairobi, as this would address several operational constraints, currently being experienced by SMEs.