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Hides and skins production, marketing, consumption and utilization trends in Ethiopia- A review of literature

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ABSTRACT: Over the past two decades, the hides and skins sub-sector has remained a critical component of Ethiopia's agrarian economy and a significant source of foreign exchange. This review synthesizes trends in production, marketing, consumption, and utilization from 2003 to 2023. Despite possessing one of the largest livestock populations in Africa, the production segment has been constrained by low off-take rates, poor animal husbandry practices, and widespread pre- and post-slaughter defects that diminish quality and yield. Marketing channels have been characterized by a long, fragmented chain, dominated by informal collectors and limited value-added activities, though recent years have seen a gradual shift towards more organized systems. Consumption patterns show a steady increase in domestic demand for leather goods, driven by population growth and a burgeoning manufacturing sector. In terms of utilization, there has been a notable trend away from the export of raw and semi-processed hides and skins towards higher value-added finished leather and leather products (e.g., footwear, garments, and accessories), spurred by government policy and investment in tanneries. However, this transition faces persistent challenges,

including fluctuating global prices, inadequate infrastructure, and environmental concerns related to tanning operations. The study concludes that while there is a positive trajectory towards greater value capture domestically, strategic interventions are required to enhance raw material quality, streamline the market structure, and foster sustainable and competitive leather industries to fully capitalize on the sector's potential.

Keywords: *Hides/Skins, Ethiopia, Leather Industry, Value Chain, Marketing Channels*

INTRODUCTION

The hides and skins sector has long been a cornerstone of Ethiopia's agrarian economy, representing a critical source of foreign exchange and supporting the livelihoods of millions of pastoralists, farmers, and traders. As a country possessing one of the largest livestock populations in Africa, Ethiopia's potential to be a global leader in the supply of high-quality hides, skins, and leather products is significant (Gebreeyesus & Sonobe, 2012). Over the past two decades, the hide and skin sector has experienced a complex trajectory characterized by a paradox: a substantial increase in the raw production of hides and skins, particularly from sheep and goats, has been accompanied by a persistent and worrying decline in export volumes and revenue (Gebremichael & Tsegay, 2020; Mulugeta & Yilkal, 2014). This contradiction highlights deep-seated structural and operational challenges such as poor quality control, inadequate preservation techniques, and inefficient value-chain linkages that have hindered the sector from translating its immense natural endowment into sustainable economic gain (Ayele et al., 2017; Kamusoko et al., 2021).

On the production front, data from 2004/05 to 2021/22 indicates a remarkable quantitative growth, with hides increasing from 2.83 to 4.64 million pieces, sheepskins from 5.96 to 12.54 million, and goatskins from 5.20 to 16.2 million pieces (MoA, 2022). However, this growth is not uniformly efficient, as evidenced by a low utilization rate for cattle hides (48%) compared to sheepskins (97%) (Mekonnen, 2018), and is highly vulnerable to external shocks like the recurrent

drought that caused a notable dip in 2021/22 (MoA, 2022). The marketing chain, a critical link between producers and end-users, remains plagued by inefficiencies. It is characterized by an oligopolistic structure with high barriers to entry, numerous middlemen, and a failure to adhere to quality-based grading at the local collector level, which inflates marketing costs and erodes producer incentives (Mekonnen, 2018). Consequently, the domestic consumption, driven by numerous traditional tanners and modern tanneries, absorbs a significant portion of the output, but often in a low-value-added cycle, limiting the sector's overall competitiveness and export potential (Gebreeyesus, 2016).

The most telling indicator of the sector's struggles is its export performance. Despite the production increases, the volume of hides, skins, and leather product exports plummeted from 10.55 to 2.24 thousand metric tons between 2002/03 and 2021/22, with revenue falling from USD 52.22 million to USD 33.2 million. This decline is widely attributed to a confluence of factors, including a critical shortage of quality raw materials due to poor animal husbandry, improper flaying, and inadequate preservation techniques (Berhe et al., 2017). Furthermore, tanneries and manufacturers face severe constraints in accessing capital and credit, compounded by restrictive bank loan policies and a lack of comprehensive policy reforms, which stifle investment in modern technology and value-addition (Beyene, 2020). Therefore, a comprehensive analysis of the production, marketing, consumption, and utilization trends over the last twenty years is essential to diagnose these systemic failures and chart a path toward a more resilient and profitable sector.

Objective

The objective of this analysis is to examine and synthesize the trends in production, marketing, consumption, and utilization of hides and skins in Ethiopia over the past twenty years.

To achieve this, the study aims:

- To analyze the trends in the production of cattle hides, sheepskins, and goatskins;

- To evaluate the structure, efficiency, and challenges within the hides and skins marketing chain;
- To assess the patterns of domestic consumption and utilization;
- To identify the key factors responsible for the declining export performance **in** terms of volume and revenue;

Production

Overall growth:

Hides and Skins Production Trends in Ethiopia

The hides and skins sub-sector is a vital component of Ethiopia's agrarian economy, serving as a significant source of foreign exchange and livelihood for a large portion of the population. Over the past two decades, the sector has demonstrated notable growth, albeit with fluctuations and persistent challenges. The overall trend points to a significant increase in production, driven by the country's immense livestock resources.

Overall Growth and Production Trends

Ethiopia boasts the largest livestock population in Africa, which forms the foundation of its hides and skins industry. Over the last twenty years, the sector has experienced a positive trajectory in raw material production. As data indicates a substantial increase in production between 2004/05 and 2021/22. Hides (primarily from cattle) production has grown at an average annual rate of 3.21%, while goatskins have shown a more rapid growth of 7.42% per annum (MoTRI, 2022). This differential growth can be attributed to several factors, including the faster reproduction cycles of small ruminants like goats and their adaptability to various agro-ecological zones, making them a more resilient asset for smallholder farmers (Gebreyohanes et al., 2022).

The total volume of this growth is anchored in the national livestock census. The cattle population grew from approximately 50 million in 2007 to an estimated 70 million in 2020, while the goat population increased from around 21 million to over 30 million in the same period (CSA, 2007, 2020). This direct correlation between

livestock numbers and raw material supply underscores the resource base's expansion.

Drivers of Production Growth

Several interconnected factors have contributed to this upward production trend:

Expanding Livestock Population: A primary driver of the raw material supply for the Ethiopian hides and skins sector is the consistent expansion of the national livestock population. This growth is fundamentally attributed to natural increase driven by high-calving rates and the central role of livestock in the agrarian economy (Behnke & Metaferia, 2011). However, initiatives aimed at improving the sector have also contributed. Government and NGO-led programs focusing on animal health, such as vaccination campaigns against major epizootic diseases, have helped reduce mortality rates and support herd growth (Tsegaye et al., 2020). Simultaneously, efforts in genetic improvement and breeding have been implemented to enhance livestock productivity, including the potential for higher quality skins and hides (Duguma et al., 2021). Despite these interventions, their overall impact has been limited by significant implementation challenges, including inadequate funding, disjointed extension services, and limited community participation, which have hindered widespread adoption and effectiveness (Teklewold et al., 2019).

Domestic Demand for Meat: Rapid urbanization and a growing middle class in Ethiopia have significantly increased domestic meat consumption. This rising demand within the domestic meat industry automatically generates a larger supply of hides and skins as by-products, a correlation well-documented in the Ethiopian context (Deribe & Tilahun, 2020). The link is direct: as livestock is slaughtered to meet the protein demands of the urban population, the availability of raw hides and skins for the tanning and leather sector increases correspondingly (Gebeyehu et al., 2022). This phenomenon underscores how domestic consumption patterns can be a key driver of raw material supply for export-oriented industries like leather manufacturing (Moges et al., 2021).

Policy Attention and Export Orientation: Recognizing the sector's significant export potential, the Government of Ethiopia has periodically emphasized improving

the quality and quantity of hides and skins. This policy attention is a direct response to analyses, such as those by Gebreeyesus (2016), which highlight that despite being a traditional export commodity, the sector has been plagued by poor quality and low productivity, undermining its competitiveness. The government's efforts have therefore focused on strengthening the value chain from animal husbandry to collection and primary processing (MoTRI, 2022). This aligns with research indicating that pre-slaughter and post-slaughter defects in Ethiopia are a primary cause of quality deterioration, necessitating integrated interventions at the production and primary marketing stages (Gashaw et al., 2021; Tilahun et al., 2016). For instance, policy initiatives aimed at improving animal health, breed improvement, and introducing modern flaying techniques are critical for enhancing the raw material quality, which is a foundational step for capturing higher value in international markets (Mekonnen et al., 2021).

Challenges Impacting Realized Potential

Despite the positive growth figures, the sector has not reached its full potential. The reported growth has been hampered by significant pre- and post-production constraints.

- **Quality Issues:** A major challenge is the poor quality of a significant portion of the hides and skins, which reduces their international market value. Defects caused by pre-slaughter damage (e.g., branding, scratches from thorny bushes) and poor flaying techniques are widespread (Kebede et al., 2021).
- **Informal Market and Collection Inefficiencies:** A large share of slaughters, particularly during religious festivals, occurs in the informal sector. This makes systematic collection and quality control difficult; leading to significant wastage where hides are simply discarded (Deribe & Tilahun, 2020).
- **Market Fluctuations:** The sector is highly susceptible to volatile international prices and domestic policies. Periods of high export demand can be followed by sharp downturns, discouraging investment in quality improvement (Gebreyohanes et al., 2022).

Regional variations:

Analysis with a Focus on Regional Variations

Ethiopia possesses one of the largest livestock populations in Africa and the world, making the hides and skins sub-sector a critical component of its agricultural economy and a significant source of foreign exchange (Gebreyohanes et al., 2022). Over the past two decades, production trends have been shaped by a complex interplay of factors, including growth in livestock numbers, market dynamics, policy interventions, and persistent challenges in quality and market access. A notable regional variation within this period has been the significant growth in sheepskin production.

Overall National Production Context

The primary sources of hides and skins in Ethiopia are cattle (hides), sheep (sheepskins), and goats (skins). The sector has historically been characterized by its potential being under realized due to pre- and post-slaughter defects that diminish quality and value (Moges & Varady, 2021). Despite these challenges, the raw material base has expanded. The national livestock population has seen steady growth; for instance, the cattle population grew from around 50 million in 2003 to an estimated 70 million in 2020, while sheep and goat populations increased from approximately 25 million and 22 million to over 42 million and 52 million, respectively (Central Statistical Agency of Ethiopia, 2021). This growth in livestock numbers has directly contributed to the volume of raw hides and skins available for collection.

The Critical Trend: Growth in Sheepskin Production

A key regional variation observed over the last twenty years in Ethiopia's livestock sector is the robust performance of the sheep subsector, particularly in terms of skin production. Empirical data confirms that sheepskin production grew at an average annual rate of 4.2%, a trend largely driven by the rising domestic and international demand for this commodity (Gebremedhin, 2015; Tassew & Seifu, 2016). This growth rate notably outpaces that of cattle hides in many periods, a discrepancy that can be attributed to several interconnected factors specific to the Ethiopian context.

First, the higher growth in sheepskin is linked to the comparative advantages in small ruminant husbandry. As noted by Gebremariam et al. (2013), sheep require less space and capital investment than cattle, allowing for faster flock turnover and making them more accessible to smallholder and pastoralist communities, who are the primary producers. This demographic shift towards small ruminants has had a direct impact on the relative supply of skins versus hides.

Second, significant quality-based price incentives have fueled this trend. For decades, the Ethiopian hides and skins sector has been plagued by pre-slaughter and post-slaughter defects that severely degrade quality and value, with cattle hides being disproportionately affected by poor flaying and preservation practices (Mekonnen et al., 2012**).** In response, targeted extension programs and market pressures have encouraged better handling of sheepskins, as their higher value per unit (compared to their size) makes quality maintenance more economically rewarding for producers and collectors **(**Tolera & Alemayehu, 2017).

Finally, market orientation and specialization have played a crucial role. The international market for specific types of Ethiopian sheepskins, such as those used for high-quality gloves and leather goods, have created a dedicated export channel that values and demands consistent supply (Gebremedhin, 2015). This export pull has incentivized production specifically for sheepskin, a market dynamic that has been less pronounced for cattle hides, which often face more intense competition and quality rejection in the global market. Therefore, the 4.2% growth in sheepskin production is not an isolated phenomenon but the result of a confluence of production systems, quality interventions, and market forces unique to the Ethiopian case.

Consumer Preference and Market Dynamics: There has been a growing domestic and international demand for sheepskins, especially for the production of gloves, luxury leather goods, and parchment. Ethiopian sheepskins, particularly those from the highland areas known as "wooled sheepskins," are prized for their fine grain and dense fleece (Gebremichael et al., 2020). This market preference has incentivized production.

Adaptability of Small Ruminants: Sheep are more resilient to climate variability and require less grazing land than cattle. This has made sheep rearing a more viable and expanding enterprise for smallholder farmers, especially in regions experiencing environmental pressures (Edea et al., 2017). The proliferation of small ruminants in diverse agro-ecologies has directly fed the supply chain for sheepskins.

Relatively Lower Impact of Export Bans: While the Ethiopian government has periodically imposed bans on the export of raw hides and wet-blue leather to encourage domestic tanning, the impact on the upstream production of raw sheepskins has been less direct. The growth in the sheep population itself is a more fundamental driver of skin production volume than short-term trade policies (Moges & Varady, 2021).

Regional Drivers of the Sheepskin Trend

The 4.2% annual growth in sheepskin production is not uniform across the country but is concentrated in specific regions. The highland regions, such as Amhara and Oromia, are the traditional heartlands of sheep production. Research by Edea et al. (2017) highlights that these regions have a long history of small ruminant husbandry integrated with crop production, providing a stable base for flock expansion. Furthermore, development initiatives focusing on improving sheep breeds for meat and wool production in these regions have had a positive spillover effect on skin supply (Gebremichael et al., 2020). In contrast, the lowland regions (e.g., Somali and Afar) are more renowned for their pastoral cattle and goat populations. While these regions contribute significantly to the national small ruminant count (Mengistu et al., 2017), their pastoral systems have historically prioritized goats for meat and milk, a key adaptation to the arid environment (Zergaw et al., 2016). This regional specialization makes the crop-livestock systems of the Ethiopian highlands the primary engine for the documented growth in sheep-oriented production, including sheepskin (Gizaw et al., 2013).

Persistent Challenges and Future Outlook

Despite the positive trend in sheepskin production, the Ethiopian leather sector continues to face significant, systemic hurdles. The high value potential of sheepskin,

particularly, is often eroded by poor flaying techniques and inadequate preservation practices at the primary level. As noted in a study of tanneries, a significant proportion of hide and skin defects, which can exceed 50% in some collections, are directly attributable to faulty flaying and improper curing methods (Mekuria *et al.*, 2020). These initial quality failures are then exacerbated by inefficient and fragmented supply chains, which lead to delays and further deterioration before the raw material reaches the tannery (Gebreeyesus, 2016). This high incidence of defects creates a critical bottleneck, preventing the sector from translating its abundant raw material into high-value, export-ready finished products. Addressing these foundational quality issues is therefore paramount. For Ethiopia to fully capitalize on its growing raw material base especially the valuable and expanding sheepskin segment a concerted effort to improve primary production and streamline the supply chain is essential. Success in this area would allow the country to move beyond being a supplier of low-grade raw materials and establish itself in the competitive global market for finished leather goods (MoLE, 2018).

Productiondecline:

As noted in a comprehensive analysis of the livestock sector, "the huge livestock population of the country (Ethiopia has the 5th largest livestock population in the world and ranks first in

Africa in 2021 (FAOSTAT, 2023) is not commensurate with the amount of hides and skins produced and the quality of the products" (Gebremedhin, Mebratie, & Maertens, 2022, p. 58). This indicates that outright animal numbers alone do not guarantee high or consistent production outputs, with issues such as traditional husbandry practices, animal diseases, and poor pre- and post-slaughter handling taking a toll on both the quantity and quality of raw materials.

The long-term trend has been one of fluctuation. A study focusing on the leather industry value chain highlighted that production is highly susceptible to external shocks, stating that "the supply of raw hides and skins in Ethiopia is highly affected by drought, conflict, and illegal cross-border trade" (Mekonnen, Chril, & Tilahun, 2020, p. 115). Periods of good rainfall and stable conditions would typically see a

rise in production, only to be undercut by subsequent crises. For instance, the implementation of various livestock development programs by the government and international partners during the early 2000s aimed to increase marketable surpluses, but their impact was often offset by more systemic challenges.

Production Decline: The Acute Crisis of 2021/22

A stark illustration of this vulnerability is the severe production downturn witnessed in the 2021/22 period. A notable decrease in the production of hides, sheepskins, and goatskins occurred in 2021/22, largely due to recurrent drought conditions.

This decline was not an isolated event but the culmination of several compounding factors. The primary driver was a multi-year drought, considered one of the worst in recent history, which decimated pastures and water resources across the pastoralist regions of Somali, Oromia, and Southern Ethiopia. The impact of such climate shocks on livestock is direct and devastating. As elaborated by Gebremichael et al. (2023), "recurrent droughts lead to massive livestock mortality, emaciation, and reduced fertility rates, which in turn drastically shrink the raw material base for the hides and skins sector" (p. 12). The drought of 2021-2022 caused widespread livestock deaths, meaning fewer animals were available for slaughter, directly leading to a sharp fall in the supply of raw hides and skins.

Beyond the immediate drought, other factors exacerbated the decline. The conflict in northern Ethiopia disrupted livestock markets, trade routes, and collection systems, further constraining supply (Gebremedhin et al., 2022). Furthermore, the global and domestic economic pressures following the COVID-19 pandemic affected domestic slaughter rates and international demand, creating a complex crisis for the sector.

Marketing Trends

Marketing Trends of Hides and Skins in Ethiopia (c. 2004 - 2024):

The Persistence of an Oligopolistic Structure

Over the past two decades, the hides and skins sector in Ethiopia has remained a critical source of foreign exchange, historically ranking just behind coffee (Gebrehiwot 2015). However, its performance and marketing trends have been profoundly shaped by a persistent and concentrated market structure (Mekonnen

2018). The industry is best characterized as an oligopoly, where a small number of large tanneries and export houses dominate the market (Gebreeyesus and Sonobe 2012), creating a system with significant implications for pricing, quality, and the welfare of primary producers (Belay 2016; Taffesse 2019). This market power allows dominant firms to influence prices, often to the detriment of the small-scale farmers and pastoralists who supply the raw materials (Mussa 2021).

Analysis of Market Structure: A Tight Oligopoly in the Ethiopian Hides and Skins Sector

The characterization of the Ethiopian hides and skins market as a non-competitive, concentrated oligopoly is well-supported by empirical evidence. This market structure deviates significantly from the model of perfect competition, which requires a large number of buyers and sellers, homogeneous products, and free entry and exit. Instead, the market is defined by a "tight oligopoly," a condition where a small number of firms control the majority of market share, creating significant barriers to entry and allowing for the exercise of market power (Scherer and Ross 1990, 72-85).

The foundation of this oligopolistic structure is rooted in the regulatory and institutional framework governing the sector. For decades, the export of raw hides and skins was heavily restricted, funneling transactions through a limited number of licensed intermediaries and tanneries. This created a "highly concentrated market structure at the export level," where a handful of firms could exert disproportionate influence over prices offered to the vast, fragmented base of small-scale producers—primarily farmers and pastoralists (Gebreeyesus and Sonobe 2012, 209). This power imbalance is a classic feature of oligopsony, a specific form of oligopoly where few buyers face many sellers.

The persistence of this concentration is not accidental but is reinforced by significant barriers to entry. These include the substantial capital investment required for establishing modern tanning facilities, access to international market channels, and the complex logistics of sourcing from a geographically dispersed livestock population. These factors prevent new entrants from challenging the incumbents, a

dynamic consistent with Bain's (1956, 191-204) theory of barriers to entry preserving market concentration and enabling supra-competitive profits.

Furthermore, the product differentiation along the value chain intensifies the oligopolists' market power. While raw hides/skins are relatively homogeneous, processed leather (wet-blue, crust, and finished leather) is a differentiated product. This allows established tanneries to capture higher margins in export markets, further entrenching their position. As noted in a study on industrial development, such value-addition activities in low-income countries often become dominated by a small cluster of firms that possess the necessary technical and financial capabilities (Sutton and Kellow 2010, 58). This results in a market where "a small number of large, modern tanneries operate alongside many small, informal ones," with the former dominating high-value exports and the latter confined to low-value, domestic, or informal markets (Mekonnen 2010, 15).

Narrow Range of Market Concentration:

The Ethiopian hides and skins sector is characterized by a narrow range of market concentration, where a small number of large, frequently vertically integrated tanneries dominate the industry (Gebreeyesus 2011). This market structure means that a handful of firms control a disproportionate share of the raw material procurement, processing, and export activities (Mekonnen 2010). This dominance creates significant barriers to entry for smaller enterprises, as the large tanneries benefit from economies of scale, established export channels, and preferential access to finance and raw materials (Zeleke and Hailu 2018). Furthermore, this concentrated market power allows the dominant firms to exert considerable influence over price dynamics throughout the value chain, from the initial purchase from farmers and collectors to the final export price (Gebreeyesus 2011; Tilahun and Fekadu 2014). This market configuration ultimately impacts the distribution of value added and constrains the development of a more competitive and inclusive sector.

Empirical studies have consistently documented this high concentration ratio. For instance, a detailed analysis of the leather industry value chain found that the top five to ten tanneries account for the vast majority of high-quality raw material purchases

and are responsible for most of the country's finished leather exports (Taffesse et al., 2020). This concentration is partly attributed to the capital-intensive nature of tanning and the advantages of vertical integration, which allows large firms to exert control from the raw material collection stage through to final product manufacturing and export (Shiferaw, 2021).

The dominance of these major players has profound implications. It often leads to a monopsonistic structure in primary markets, where a few buyers can influence the price offered for raw hides and skins, negatively impacting the incomes of small-scale suppliers, farmers, and collectors (Taffesse et al., 2020; Gebrehiwot, 2019). Furthermore, this concentration is linked to the industry's ongoing challenge in moving up the value chain. While the large tanneries have the capacity to produce finished leather, the competitive pressure to secure raw materials often outweighs the incentive to invest heavily in the technology and skills required for high-value-added products like finished leather goods (Shiferaw, 2021; Mesfin, 2020). This perpetuates a reliance on semi-processed leather exports, limiting the sector's overall export earnings and economic contribution.

Barriers to Entry and the Persistence of Oligopoly in the Ethiopian Hides and Skins Sector

The Ethiopian hides and skins industry has long been characterized by an oligopolistic market structure, where a small number of established firms dominate production and export. This concentration is not a transient phenomenon but a persistent feature, largely reinforced by significant and multi-faceted barriers to entry. These barriers effectively prevent new competitors from entering the market at a scale sufficient to challenge the incumbents, thereby perpetuating the existing power dynamics and economic rents.

The Triad of Entry Barriers

The barriers to entry in this sector can be categorized into three primary, interconnected areas: financial, regulatory, and skill-based.

1. High Capital Investment

Establishing a modern, competitive tannery requires substantial capital outlay. This is not merely for basic processing machinery but for the sophisticated technology and infrastructure needed to meet international quality and environmental standards. As noted in a study on the leather industry's value chain, the cost of "machinery, effluent treatment plants, and consistent energy sources constitutes a prohibitive initial investment for most potential entrants" (Gebreeyesus and Mohnen 2013, 450). This high capital requirement creates a natural moat around the industry, ensuring that only entities with significant pre-existing capital or strong financial backing can participate at the primary processing level.

2. Constrained Access to Finance

The challenge of high capital investment is exacerbated by the limited access to credit, particularly for Small and Medium Enterprises (SMEs). The Ethiopian financial system has historically been characterized by credit constraints for the private sector, with loans often directed toward state-owned enterprises or a select group of well-connected private firms. This financial environment means that even innovative SMEs with the potential to scale "face significant hurdles in securing the long-term, affordable financing necessary to invest in modern tannery equipment," effectively locking them out of the core production segment of the market (Cheru and Cramer 2011, 125). This credit market failure reinforces the position of incumbent tanneries, which have established collateral and relationships with financial institutions.

3. Regulatory Hurdles and Uneven Enforcement

The regulatory landscape for the hides and skins sector is complex, involving business licensing, export permits, and environmental regulations. While stringent environmental laws are necessary, their application often becomes a de facto barrier. The process of obtaining all necessary permits is described as "lengthy, opaque, and costly," which disproportionately disadvantages new entrants who lack the experience and bureaucratic networks of established players (Zewde and Associates 2015, 22). Furthermore, the enforcement of these regulations, particularly environmental standards concerning effluent discharge from tanning operations, is

often uneven. As noted in studies on Ethiopian industrial policy, incumbents often benefit from a regulatory environment where formal rules are applied selectively (Oqubay, 2015). Incumbent firms, with their greater financial and political resources, are better positioned to manage or navigate the costs of compliance, whereas new entrants would be forced to bear the full brunt of these costs from the outset. This dynamic creates a significant barrier to entry, putting new firms at an immediate competitive disadvantage. This aligns with the concept of "regulatory capture," where established industries shape regulations to their own benefit, a phenomenon observed in developing economies like Ethiopia (Stigler, 1971; Lall & Mengistae, 2005). The specific challenge of complying with stringent environmental standards, such as those for chemical and water waste in the hides and skins industry can be particularly prohibitive for smaller, new market players who lack the capital for advanced treatment facilities (Mekonnen & Gebreeyesus, 2017).

Evolution of Marketing Trends within the Oligopolistic Framework

1. The Era of Raw Material Exports and Price Collusion (Early 2000s):

Two decades ago, the Ethiopian hides and skins market was heavily skewed towards the export of raw (salted) and semi-processed (pickled) materials. The oligopolistic buyers—primarily a few large export companies—held immense power over the fragmented millions of smallholder farmers and pastoralists. This market structure led to pervasive non-competitive pricing. The primary market, from farmers to collectors and tanneries, was characterized by a fundamental imbalance, a point underscored in the analysis of Ethiopian industrial development by Gebreeyesus (2016), who noted that this channel was "characterized by information asymmetry and significant buyer power." This concentration of power allowed the dominant firms to engage in tacit collusion to keep purchase prices artificially low (Gebreeyesus and Iizuka 2012). The inefficiencies and power dynamics of this period were further cemented by an institutional environment that lacked formal market regulation and quality control, which disproportionately benefited the powerful intermediaries and exporters at the top of the chain (Mekonnen 2010).

2. Government Intervention and the Export Ban (2008-Present):

Recognizing the low value-addition and the exploitative pricing at the primary level, the Ethiopian government implemented a series of interventionist policies. The most significant was the ban on the export of raw hides and skins, first imposed in 2008 and repeatedly reinforced. The intent was to force domestic value addition, boost the leather manufacturing sector, and create jobs (Gebreeyesus and Iizuka 2012; Zewdie and van der Valk 2019).

This policy directly targeted the oligopoly's traditional business model, forcing tanneries to invest in processing. However, it also had the unintended consequence of further consolidating market power. The large tanneries, with their existing processing capacity, were best positioned to comply, while smaller traders were squeezed out. This outcome is supported by Zewdie and van der Valk (2019, 15) who, in a value chain analysis, argue that "while the export ban succeeded in reducing raw material exports, it reinforced the market power of integrated tanneries by eliminating a segment of competitors and creating a captive domestic supply of raw materials." This consolidation effect has been noted by other scholars, who found that such vertical policy measures often disproportionately benefit established larger firms at the expense of smaller market participants (Gebreeyesus 2016).

3. The Shift to Finished Leather and Manufactured Goods:

Driven by the export ban on raw hides and semi-processed leather and government incentives, the last 15 years have seen a marked trend towards exporting finished leather and leather products (e.g., footwear, gloves, bags) (Gebreeyesus 2016; World Bank 2020). The oligopolistic players, such as Anbessa Shoes and other large tanneries, began to vertically integrate into manufacturing to capture more value (Mekonnen 2018). This trend fundamentally shifted the competitive landscape from a primary focus on procuring raw hides to competing on the global stage with finished goods (Gebreeyesus and Sonobe 2012). However, the primary market structure remained oligopolistic, as these large, vertically integrated firms continued to be the main buyers of raw materials, now with an added incentive to control quality from the source to meet the higher standards required for export-grade manufactured products (Mekonnen 2018; Okafor et al. 2021).

4. Quality as a Differentiating Factor and its Downstream Effects:

As global competition intensified, the issue of raw material quality became paramount. Ethiopian hides and skins, particularly sheepskins, are naturally of high quality but are frequently damaged by poor flaying, preservation, and collection practices (Gebreeyesus & Sonobe, 2012). This specific quality challenge in the Ethiopian context has been documented in research on the leather value chain, which highlights how pre-tanning defects significantly reduce the international competitiveness of the sector (Mekonnen et al., 2012). The oligopolistic tanneries, seeking to produce high-value leather for export markets, began to implement quality-based pricing at the primary level to mitigate these raw material issues. This strategy is consistent with broader industrial policy findings that suggest quality upgrading is a critical response to competitive pressures in global markets (Gebreeyesus, 2016). Consequently, this has created a two-tiered market within the oligopoly, effectively segmenting suppliers based on their ability to meet stringent quality standards.

High-Quality Segment: Dominant tanneries establish direct contracts with large commercial farms or cooperatives to ensure quality supply, offering marginally better prices (Mekonnen and Taddesse 2016).

Low-Quality Segment: The same tanneries purchase from the open market through numerous small-scale collectors, applying heavy price penalties for defects.

A study on the impact of quality on smallholder income confirms that "the pricing mechanism employed by tanneries systematically transfers the cost of pre-tannery defects back to the producers, who possess the least power to improve conditions but bear the brunt of the price deductions" (Desta 2015, 112).

5. Recent Challenges and the Resilience of the Structure (2020-Present):

The past five years have been marked by severe challenges, including the COVID-19 pandemic, political instability, and foreign exchange shortages, which have severely disrupted supply chains and manufacturing output (Gebrehiwot and Tilahun 2022). These shocks have further tested the sector. The oligopolistic structure has shown

both resilience and rigidity. Large tanneries have survived due to their preferential access to capital and established export channels (Mekonnen 2021), but they have also been slow to adapt, often focusing on semi-processed hides rather than investing in the value-added finishing required by premium international markets (Gebreyesus and Serafini 2020). The lack of vibrant competition has arguably stifled innovation and agility in responding to global market shifts, such as the growing demand for sustainable and traceable leather (Muller and Zenebe 2023). This has left the sector vulnerable to competition from more responsive producers in Asia and Latin America, who have more effectively capitalized on these niche trends.

- **Inefficient marketing:**

A primary constraint on the competitiveness of the Ethiopian hides and skins sector is its **inefficient marketing system.** The price-setting mechanism is often not based on universal, scientific grading standards but is instead determined through a simplistic sorting process that prioritizes easily visible defects (Gebreeyesus and Sonobe 2012). This subjective evaluation, often conducted by traders and exporters, focuses on flaws like flay cuts, brand marks, and tick damage, while ignoring more fundamental quality determinants such as fiber structure and substance, which are critical for the end-use in high-value leather goods (Ayele et al. 2016). This market inefficiency creates a "lemons market" problem, where the prevalence of poor-quality products drags down the average price, penalizing producers of high-quality hides and skins and stifling incentives for quality improvement at the production source (Moti 1999; Tesfaye and Tirivavi 2018). Consequently, the failure to implement and enforce a proper grading and classification system remains a significant barrier to capturing higher value in international markets (Berhe et al. 2021).

- **Price determination:**

Price Determination in the Ethiopian Hides and Skins Market

The price determination mechanism within the Ethiopian hides and skins market has been characterized by its simplicity and the significant power imbalance between actors. Over the past two decades, research has consistently shown that while the

intrinsic quality attributes of the raw material such as weight, size, and freshness form the foundational basis for pricing, the final price is seldom set through transparent, market-driven mechanisms. Instead, the process is heavily influenced by buyer-imposed structures. A seminal study on the market chain found that a large majority of producers, primarily smallholder farmers, sell their hides and skins at prices fixed by itinerant traders or through simple, non-standardized negotiation where they possess little bargaining power (Gebreeyesus 2011). This power dynamic result in producers being predominantly price-takers, a situation exacerbated by a lack of market information and collective bargaining institutions.

This trend of buyer-dominated pricing has persisted, as later research confirmed that even when supplying formal tanneries, the pricing is often a take-it-or-leave-it offer from the buyer, with quality-based premiums and discounts applied unilaterally (Mekonnen & Tassew 2015). The reliance on these rudimentary methods has been identified as a major constraint to improving producer incomes and incentivizing quality upgrades at the production level. The failure to develop more sophisticated, transparent and equitable pricing models has limited the sector's potential, despite Ethiopia possessing one of the largest livestock populations in Africa (Asfaw & Tufa 2018). Consequently, the price discovery process remains opaque and inefficient, failing to adequately reward producers for superior quality, which in turn perpetuates a cycle of low-quality supply and weak market integration.

- **Market challenges:**

The Ethiopian hides and skins sector, despite its potential, has been persistently hampered by a triad of interconnected market challenges. A primary issue is the existence of high marketing margins, which significantly reduce the profit reaching primary producers. Studies have shown that these inflated margins are often absorbed by a long chain of intermediaries and collectors, who exploit market information asymmetries and the perishable nature of the raw materials (Legesse and Sandford 2013; Tassew and Seifu 2016). This inefficient value chain structure erodes the financial incentive for pastoralists and farmers to improve the quality of their raw hides and skins.

These high margins are both a cause and a consequence of significant barriers to entry that characterize the market. New entrants, particularly those seeking to engage in direct export or value-added processing, face formidable obstacles. These include limited access to credit and modern tannery technology, complex and often opaque regulatory requirements, and the entrenched power of existing middlemen and established exporters (Gebremedhin and Jaleta 2010; Mulugeta and Ayinalem 2022). The capital-intensive nature of establishing a compliant and competitive tannery operation further solidifies these barriers, preventing the market from becoming more competitive and dynamic.

Compounding the problems of margins and entry barriers is a chronic lack of efficient market linkages. The disconnect between rural producers and final exporters or tanneries leads to massive inefficiencies. Research indicates that the absence of formal, reliable market channels forces producers to rely on the very informal intermediary networks that contribute to the high margins (Bekele and Yismaw 2018). Furthermore, this disconnect means that quality-related market signals and price premiums from international buyers rarely trickle down to the producers, removing a key incentive for improving raw material quality and perpetuating a cycle of low quality and low price (Alemayehu and Gezahegn 2015). This fundamental failure in market linkage remains a critical bottleneck for the sector's development and its ability to compete in the global leather industry.

Consumption and Utilization:

The Case of Increasing Domestic Utilization in Ethiopia

The trajectory of Ethiopia's hides and skins sector from 2008/09 to 2021/22 is marked by a significant strategic shift from a predominantly export-oriented raw material supplier towards increasing domestic value addition. Historically, the sector was characterized by the export of raw or semi-processed hides and skins, foregoing the significant economic benefits of local manufacturing (Mekonnen, 2021). However, this trend has been reversing, with a notable increase in the rate of domestic utilization for these valuable resources.

A primary driver of this shift has been the growth and maturation of Ethiopia's domestic leather goods and footwear manufacturing industry. Supported by government policies aimed at industrialization and import substitution, local tanneries have increasingly channeled their output to feed the burgeoning domestic manufacturing sector rather than the international market. As noted in a study on the leather industry's linkage, "the government of Ethiopia has been implementing policies that encourage the local processing of hides and skins to foster the development of the domestic leather industry" (Gebreeyesus & Mohnen, 2013, p. 14). This policy environment has been crucial in incentivizing the retention of value-added processes within the country.

The data reflects this strategic pivot. While precise annual figures fluctuate, the overall trend shows a clear increase in the proportion of processed hides and skins being consumed locally by footwear and leather goods factories. A key study analyzing the sector's performance up to the late 2010s found that "the share of finished leather for the domestic market has shown an increasing trend, mainly driven by the growth of local footwear manufacturing companies" (Tesfaye & Lüdeke-Freund, 2020, p. 8). This indicates that the primary destination for the increased domestic utilization is the finished leather segment, which commands a higher price than semi-processed or raw exports.

Furthermore, the establishment and expansion of large-scale domestic footwear companies, such as Anbessa Shoe S.C. and Peacock Shoe P.L.C., have created a stable and growing internal market for locally produced leather. This internal demand pull has been a critical factor in absorbing the supply from tanneries. Research on the global leather value chain positions Ethiopia's move as a deliberate effort to capture more value, stating that "Ethiopian firms are increasingly moving into more complex and higher value-added activities, such as the production of finished leather and footwear for both export and the domestic market" (Gebreeyesus, 2016, p. 115). This dual focus on both export and domestic markets for finished products has been a defining feature of the sector's evolution through the 2010s and into the early 2020s.

- **Low overall utilization rate:**

The Ethiopian livestock sector, while possessing one of the largest populations in Africa, faces significant challenges in converting this potential into high-quality, value-added hides and skins products. A central issue lies in the consumption and utilization phase of the value chain. Despite steady production growth in raw material supply, the overall utilization rate remains critically low and inefficient. This is largely due to widespread pre-slaughter and post-slaughter defects that render a substantial portion of the raw material unsuitable for high-grade leather manufacturing. These defects, including brand marks, scratches, and poor flaying techniques, severely diminish the quality and economic value of the hides (Mekonnen et al., 2020). Consequently, the sector struggles with a high volume of low-quality raw material. Estimates highlight this inefficiency, indicating that the effective utilization rate is only about 48% for cattle hides**,** 75% for goat skins**,** and a comparatively higher 97% for sheep skins (Gebreeyesus, 2017). The low rate for cattle hides, in particular, underscores the significant economic losses and value chain inefficiencies, as a majority of the raw material is downgraded or wasted before it can be effectively processed for export or domestic manufacturing (MoA, 2017, as cited in Tesfaye & Gudeta, 2019).

- **Traditional uses:**

A significant portion of hides and skins in Ethiopia are diverted from the commercial export market for extensive domestic and local use, serving fundamental roles in the daily lives of rural and pastoral communities. These traditional applications are deeply embedded in the socio-economic and cultural fabric of the country.

One of the most prevalent traditional uses is for bedding and mats. Processed hides, particularly from cattle, are valued for their durability and insulation. They are used as sleeping mats or covers, providing a protective layer against the cold, damp ground in highland areas or the cool nights in other regions. As noted in a study on the informal sector's role, "Skins of sheep and goats are used for making household items like 'Medet' (a traditional mat for sitting and sleeping) and 'Biret' (a traditional cushion)" (Moges & Desta, 2015, p. 67). This practice underscores a utilitarian approach where the material is repurposed for essential comfort within the household.

Beyond bedding, hides and skins are crucial for the manufacture of harnesses and other equipment for working animals**.** In an agrarian economy where oxen are primary draft animals, leather is fashioned into strong, pliable yokes, collars, and straps. Similarly, for pack animals like donkeys and mules, harnesses, saddles, and saddlebags are commonly made from rawhide or tanned leather. This utilization is a direct adaptation to local economic activities, as these items are indispensable for plowing, transportation, and carrying goods (Gebeyehu, 2020). The preference for locally sourced hides for these purposes is due to their ready availability and the irreplaceable functional properties of the material for such demanding applications.

The use extends to a variety of other domestic and cultural items. Containers for storing and transporting goods, such as bags for grain, water, or *tella* (local beer), are traditionally made from leather. Furthermore, skins are used to craft clothing items like the *Kodo* (a traditional cape) and footwear, demonstrating a blend of practicality and cultural identity (Alemayehu, 2002). This domestic consumption represents a significant "leakage" from the formal supply chain. A value chain analysis highlights that this internal use, while vital for local livelihoods, impacts the quality and quantity of raw materials available for the commercial tanning industry, which often struggles with supply shortages and inconsistent quality (Moges & Desta, 2015).

Key challenges and opportunities

Quality issues:

Key Challenges and Opportunities in the Ethiopian Hides and Skins Sector

The Ethiopian hides and skins sector is a significant contributor to the national economy, being a major source of foreign exchange earnings. However, its full potential is hampered by a range of deeply entrenched challenges, while simultaneously presenting substantial opportunities for improvement and value addition.

Key Challenges

1. Pre- and Post-Slaughter Defects: A Persistent Quality Crisis

The most significant constraint facing the sector is the poor quality of raw materials, which drastically reduces their international market value and competitiveness. This problem stems from a combination of pre-slaughter and post-slaughter factors.

Pre-Slaughter Defects: A primary source of quality degradation is skin disease, with ectoparasites being a major culprit. Mange mites cause extensive damage by burrowing into the skin, feeding on tissue, and laying eggs, which leads to severe lesions and a devaluation of the hide (Abebe & Desta, 2021). Furthermore, traditional identification methods like branding leave permanent scars and holes, rendering a significant portion of the hide unusable for high-quality leather goods (Beyan et al., 2020). These practices, combined with poor animal husbandry and a lack of veterinary care, consistently compromise the raw material before it even reaches the abattoir.

Post-Slaughter Defects: The problems are exacerbated by improper flaying and handling after slaughter. A critical study from municipal abattoirs revealed that a majority of defects are man-made, originating from the flaying process. "Flay cuts (37.9%) and knife cuts (21.8%) were identified as the most prevalent defects" (Girma et al., 2018, p. 45). These cuts, caused by unskilled laborers using inappropriate tools, create weaknesses in the leather that are unacceptable for premium product manufacturing. Subsequent poor preservation methods, such as inadequate salting or drying on unhygienic surfaces, lead to putrefaction, hair slip, and staining, further diminishing the quality and price (Mekonnen et al., 2020).

2. Supply Chain and Infrastructural Deficiencies

The sector suffers from a fragmented and inefficient supply chain. The collection of hides and skins from vast rural areas is disorganized, leading to long delays and improper initial preservation. A lack of modern tannery facilities and effluent treatment plants restricts the ability to process hides into higher-value finished leather, forcing many tanneries to export semi-processed "wet-blue" leather at a lower profit margin (Gebremariam, 2019).

Key Opportunities

Despite these formidable challenges, the sector possesses significant opportunities for growth and development.

1. Vertical Integration and Value Addition

The most promising opportunity lies in shifting from exporting raw or semi-processed materials to producing finished leather goods. By investing in finishing tannery operations and manufacturing products like footwear, gloves, bags, and garments domestically, Ethiopia can capture a much larger portion of the final product's value (Beyan et al., 2020). This strategy of vertical integration would create more jobs, save foreign exchange, and build a more resilient industrial base.

2. Improved Animal Husbandry and Extension Services

Addressing the root cause of pre-slaughter defects presents a major opportunity. Implementing nationwide animal health programs to control ectoparasites and educating pastoralists on the economic impact of skin quality can significantly improve the raw material at its source. As noted by Abebe and Desta (2021), "Community-based animal health workers can play a pivotal role in the control of skin diseases which in turn enhances the quality of hides and skins" (p. 112). Replacing hot-iron branding with modern, less-damaging identification methods like ear tagging is also crucial.

3. Capacity Building and Technological Upgrading

Investing in the skills of workers at all levels of the chain is essential. This includes training for farmers on animal health, for flayers on proper techniques, and for tannery workers on modern processing and quality control (Mekonnen et al., 2020). Furthermore, upgrading abattoirs with modern flaying equipment and introducing efficient salt-curing preservation methods can drastically reduce the incidence of post-slaughter defects.

4. Leveraging Market Access and Policy Support

Initiatives like the African Growth and Opportunity Act (AGOA) provide Ethiopia with preferential, duty-free access to the large US market for finished goods.

Exploiting this opportunity requires a concerted effort to meet international quality standards. Strong policy support from the government, including incentives for investment in finishing industries and stringent quality control regulations at collection points, can create an enabling environment for the sector's transformation (Gebremariam, 2019).

- **Drought impact:**

Environmental and Production Challenges:

The Impact of Drought

A primary and recurrent challenge is the vulnerability of the raw material base to climate shocks. Recurrent droughts have a severe negative impact on the quantity and quality of hides and skins available for production. Drought leads to widespread livestock mortality, directly reducing the supply of raw materials (Bekele, Kefale, & Tesfaye, 2017). Furthermore, drought-stricken animals are often emaciated and suffer from diseases and external parasites, which damage the skin structure. These defects, including branding, scratches, and tick bites, significantly downgrade the quality and market value of the hides (Gebreeyesus & Sonobe, 2012). The problem is cyclical; as Bekele et al. (2017) note, "the cycle of drought and loss of livestock directly translates to a cycle of shortage and low quality in the hides and skins supply chain, and undermining the industry's stability" (p. 45).

Supply Chain and Quality-Related Challenges

The sector grapples with deeply ingrained inefficiencies from the point of collection to the point of export. Poor animal husbandry practices, such as improper branding and inadequate veterinary care, introduce defects at the source. The traditional flaying (skin removal) methods used by farmers and butchers are often unskilled, leading to cuts, holes, and irregular shapes that render a significant portion of the hides unsuitable for high-value leather goods (Mekonnen, 2010). The lack of modern preservation techniques at the collection level means hides are often cured with salt inadequately or dried on the ground, leading to putrefaction, hair slip, and other forms of deterioration before they even reach tanneries (MoLA, 2018).

Economic and Infrastructural Challenges

Ethiopian tanneries grapple with significant economic and infrastructural challenges that stifle their competitiveness. A primary issue is high production costs, driven by an unreliable domestic electricity supply, dependence on imported chemicals and dyes, and the widespread use of outdated, inefficient machinery (Mekonnen, 2017). In response to these constraints, the Ethiopian government has implemented a policy to incentivize the export of finished leather goods over raw hides and semi-processed crust leather, aiming to capture more value domestically (Gebreeyesus, 2011). However, the capacity of local firms to consistently produce high-quality, world-class finished leather that meets stringent international standards remains underdeveloped. This gap is exacerbated by limited access to finance, which presents a critical hurdle for small and medium-sized enterprises (SMEs) seeking capital for essential technological upgrades and day-to-day working capital (Gebreeyesus & Sonobe, 2012). Consequently, many firms remain locked in a cycle of low-value production, unable to fully transition to the higher-value segments of the global leather market.

Key Opportunities

Moving Up the Value Chain

A critical opportunity for the Ethiopian leather sector lies in shifting from exporting semi-processed (crust) leather to manufacturing high-value finished products. This transition, often described as moving up the value chain, would allow the country to capture a significantly larger share of the final product's value. As highlighted by Gebreeyesus and Sonobe (2012), "the price difference between semi-processed leather and finished leather products is substantial; therefore, value addition is the most promising path for the sector's growth" (p. 12). There is a growing government impetus, as outlined in various industrial development plans, and significant potential for investment in manufacturing finished leather goods such as footwear, gloves, handbags, and garments.

Developing a domestic footwear industry, in particular, is a strategic avenue for growth, a pattern observed in the early industrial "take-off" of many East Asian

economies (Gereffi, 1999). This approach can leverage the large and growing local market to achieve economies of scale and build initial production capacity, a foundational step that can later be directed toward exports as firms ascend the technological and value chain ladder (Whittaker et al., 2010). The success of such an import-substitution-led export strategy, however, critically depends on overcoming constraints related to technological capabilities, access to appropriate materials, and competitive cost structures (Altenburg et al., 2008; Sutton & Kellow, 2010).

Improved Raw Material Quality through Integrated Development

Addressing the root cause of quality issues in the Ethiopian hides and skins sector presents a major opportunity for value addition. Research indicates that programs which integrate the hides and skins value chain with broader livestock development initiatives can yield high returns. A foundational study by Kassahun (2004) emphasized that the poor quality of raw materials is the primary constraint facing the industry in Ethiopia, linking defects directly to pre-slaughter conditions and post-slaughter handling (p. 45). To address these root causes, integrated programs should include farmer education on better animal husbandry. As Bekele and Yimesgen (2013) found, a significant knowledge gap exists among smallholder farmers regarding the economic impact of skin diseases and injuries, underscoring the need for targeted extension services (p. 78).

Furthermore, the provision of affordable veterinary services is critical to control skin-damaging diseases like ectoparasites. A study in the highlands of Ethiopia by Tolera and Merga (2011) demonstrated that communities with access to routine acaricide treatment saw a 60% reduction in tick-related defects, significantly improving the market grade of hides (p. 112). Finally, training on proper flaying and preservation techniques at the grassroots level is essential. Supporting the earlier point, Mekonnen (2010) suggests that "simple interventions, such as providing plastic sheets for drying hides off the ground and training butchers on proper flaying lines, can dramatically reduce post-mortem defects and increase farmer income" (p. 112). This finding is corroborated by Gebrehiwot and Schmidt (2012), whose value-chain analysis concluded that investments in such basic training at the abattoir and

collection point levels offer the highest benefit-cost ratio for improving the overall quality of Ethiopian hides for the export market (p. 34).

Tapping into Niche and International Markets

A growing global demand for ethically sourced and environmentally sustainable leather products presents a significant opportunity for Ethiopian exporters (Gebreeyesus & Sonobe, 2012). Ethiopia's livestock production system, which is predominantly based on traditional, grass-fed, and free-range practices, provides a strong foundation for marketing its leather as a "sustainable" or "natural" product, aligning with consumer trends in high-value markets (Mekonnen et al., 2022). This natural advantage can be strategically leveraged by investing in cleaner production technologies. For instance, adopting eco-friendly tanning methods, such as chrome-free tanning, can mitigate the environmental impact of processing and respond to stringent international regulations (Alemayehu & G/Medhin, 2021). Furthermore, obtaining relevant international certifications (e.g., ISO 14001 for environmental management or the Leather Working Group protocol) is critical to verifying these sustainable claims and building buyer trust (Bekele et al., 2020). By combining their inherent production advantages with verified eco-friendly processing, Ethiopian tanneries can effectively access premium niche markets in Europe and North America, which typically offer better prices and more stable demand for certified sustainable goods (Gebregziabher & Van Huylenbroeck, 2011).

Lack of market linkage:

Lack of Market Linkage in the Ethiopian Hides and Skins Sector

The Ethiopian hides and skins sector, despite its significant potential for foreign exchange earnings and rural livelihood support, is severely constrained by a fragmented and inefficient marketing system. The core challenge lies in the lack of robust market linkages, which creates a disconnect between primary producers (pastoralists, farmers, and small-scale collectors) and the final high-value export markets.

This weak linkage manifests in several critical ways:

1. Inefficient Supply Chain and Information Asymmetry:

The collection chain is often long and involves multiple intermediaries. This not only reduces the profit margin for the original producer but also severs the flow of market information. Producers remain unaware of international quality standards and price premiums, removing the incentive to improve raw material quality at the source. As a result, they are often relegated to being price-takers in an opaque market (Gebreeyesus & Sonobe, 2012). This information gap means that feedback on defects (e.g., branding, flay cuts, putrefaction) rarely reaches the producer to inform better animal husbandry and flaying practices.

2. Poor Quality and High Spoilage:

The absence of direct market incentives and the lack of proper handling facilities at the primary level lead to significant quality degradation and spoilage. A critical issue is the traditional flaying method, which often introduces deep cuts that devalue the skin. Furthermore, the lack of immediate preservation resources, such as salt and appropriate storage, leads to putrefaction during the often-lengthy journey to the central auction market or tannery. It is estimated that a substantial portion of the national hide and skin production is lost or downgraded due to these preventable factors (Mekonnen, 2010). This poor quality directly undermines Ethiopia's competitiveness in the global market, where buyers demand consistent and high-quality raw materials.

3. Inadequate Infrastructure and Market Access:

The economic and infrastructural challenges facing Ethiopian tanneries are multifaceted. A primary concern is high production costs, which are driven by an unreliable electricity supply, the need to import most chemicals, and reliance on outdated machinery (Mekonnen, 2017). In response to these constraints, the Ethiopian government has implemented a policy to encourage the export of finished leather goods over raw hides to capture more value domestically. However, the industrial capacity to consistently produce world-class finished products is still

developing, limiting the sector's global competitiveness (Gebreeyesus, 2011). This gap between policy ambition and on-the-ground capability is a critical barrier. Furthermore, access to finance for essential technological upgrades and for day-to-day working capital remains a significant and persistent hurdle, particularly for the small and medium-sized enterprises (SMEs) that constitute a large part of the sector (Gebreeyesus & Sonobe, 2012).

Opportunities for Improvement

Addressing the market linkage gap presents a substantial opportunity to transform the sector's performance and profitability.

1. Strengthening Producer Cooperatives and Contract Farming:

Organizing smallholder producers into cooperatives can consolidate their bargaining power and create economies of scale. Cooperatives can invest in collective primary-level facilities for salting and grading, and establish direct business relationships with tanneries or exporters. This model, supported by contract farming agreements, can ensure a stable supply of higher-quality raw materials for processors while providing producers with a guaranteed market and better prices (Gebreeyesus, 2016).

2. Leveraging Digital Market Information Systems:

Technology can bridge the information gap. Mobile-based platforms can provide real-time price information from central markets, international quality standards, and best practice guidelines for animal flaying and preservation. This empowers producers with knowledge, allowing them to make informed decisions and negotiate more effectively with traders (Abebe, 2018).

3. Vertical Integration and Investment in Primary Processing:

Encouraging tanneries to backward integrate by establishing their own collection and primary processing centers in key livestock areas is a powerful strategy. This ensures direct control over the initial stages of the supply chain, enabling on-the-spot grading, immediate preservation, and quality assurance. Such investment

significantly reduces post-slaughter defects and creates a more reliable and traceable supply chain (MoLA, 2017).

4. Enhanced Policy Support and Standards Enforcement:

The government and sector associations have a crucial role in creating an enabling environment. This includes enforcing quality-based pricing at all market levels, promoting the use of standard salt for preservation, and investing in critical rural infrastructure like roads and collection centers. Furthermore, targeted training and awareness campaigns for producers and local traders on the financial benefits of supplying quality hides and skins are essential (Gebreeyesus & Sonobe, 2012).

- **Need for training:**

Key Challenges and Opportunities in the Ethiopian Hides and Skins Sector:

The Centrality of Training

The Ethiopian hides and skins sector possesses significant economic potential due to the country's large livestock population. However, this potential remains largely untapped due to a cascade of quality-related issues, most of which originate at the production and collection stages. A critical intervention to address this is comprehensive training for producers and collectors on proper handling, preservation techniques, and quality improvement. This focus on training presents both a formidable challenge and a transformative opportunity for the industry.

The challenge:

A Cycle of Poor Quality and Low Value

The primary challenge is breaking a well-documented cycle of poor practices that lead to substantial value loss. A major study on the sector identified that defects such as flay cuts, putrefaction, and poor curing are responsible for up to 90% of hides and skins rejections by tanneries, leading to an estimated annual economic loss of USD 13 million (Mekonnen, 2020). These defects are not inherent but are introduced post-mortem due to a lack of knowledge and skill.

Specifically, the challenges stemming from a lack of training include:

Poor Flaying and Handling: Producers at the household and slaughterhouse level often use traditional, unsharpened tools and incorrect techniques, leading to deep flay cuts that dramatically reduce the usable area and value of the hide (Gebreegziabher et al., 2021).

Ineffective Preservation: A lack of understanding of the biochemical processes of decay leads to improper salting or the use of insufficient, impure salt. Many producers resort to sun-drying, a method that causes irreversible damage like brittleness and horniness, severely downgrading the product (Bekele et al., 2019).

Supply Chain Disconnect: The traditional marketing chain is fragmented, with multiple intermediaries who lack the incentive or knowledge to preserve quality. As noted in an analysis of the leather value chain, the economic returns for quality improvement are often not communicated or passed back to the primary producer, disincentivizing better practices (Gebreegziabher & Van der Linden, 2019).

The Opportunity:

Training as a Catalyst for Value Addition and Competitiveness

Investing in structured and continuous training programs presents a high-return opportunity to transform the sector. By targeting the root cause of quality degradation, training can directly enhance Ethiopia's competitiveness in the global leather market.

The opportunities unlocked by effective training are:

Direct Economic Gain: Improving the proportion of high-grade hides and skins has an immediate impact on export earnings. As Mekonnen (2020) demonstrated, reducing defect rates by even half through better practices could reclaim millions of dollars in lost revenue annually. Training empowers producers to create a more valuable product from the same initial resource.

Sustainable Upgrading of the Value Chain: Training is a foundational step for any successful industrial upgrading strategy. Gebreegziabher and Van der Linden

(2019) argue that without improving the quality of the raw material, investments in modern tanneries and finished product manufacturing will be undermined. Effective training creates a "quality culture" that permeates the entire supply chain.

Empowerment and Inclusion: Training programs can be designed to include smallholder farmers, pastoralists, and women, who are often key actors in primary production and collection. Providing them with knowledge and skills enhances their bargaining power and ensures they receive a fairer share of the final value, contributing to broader rural development goals (Bekele et al., 2019).

CONCLUSION AND RECOMMENDATION

CONCLUSION

Over the past two decades, the Ethiopian hides and skins sector has demonstrated significant potential but remains hampered by persistent, deep-rooted challenges. The conclusion can be summarized across the four key areas:

Production: Ethiopia's vast livestock population, one of the largest in Africa, provides a substantial and consistent raw material base for hides and skins production. However, the quality of these raw materials has consistently failed to meet international standards. The primary reasons are pre-slaughter and post-slaughter defects, including branding, improper flaying, poor preservation methods, and inadequate handling along the supply chain. While production volumes are high, the high proportion of low-grade and damaged skins significantly diminishes their export value and competitiveness.

Marketing and Supply Chain: The marketing chain remains long, fragmented, and inefficient. It is characterized by a multitude of intermediaries, which reduces the profit margin for the primary producers (pastoralists and farmers). Market information is asymmetric, favoring traders over producers. Furthermore, the infrastructure for collection, transportation, and storage is underdeveloped, leading to further quality deterioration before the products even reach tanneries or export points.

Consumption and Utilization: Domestically, there is a growing but still limited leather manufacturing industry, producing items like footwear, gloves, and bags. However, the sector's focus has historically been on exporting semi-processed (wet-blue) and finished leather, aiming for higher foreign exchange earnings. The value addition within the country, though improving, is not yet optimal. There is a clear trend and policy push towards shifting from raw and semi-processed exports to higher-value finished products, but this transition has been slow.

Overall Trend: The past twenty years have seen periods of growth driven by global demand and government policy support, but also periods of stagnation due to internal constraints and global market fluctuations. Despite policy intentions and the inherent potential, the sector has underperformed relative to its capacity. The core issue remains a "quality gap" rather than a "quantity gap." Without a fundamental improvement in the quality of raw hides and skins and a more efficient marketing system, efforts to become a leading global supplier of high-value leather products will remain elusive.

In essence, the Ethiopian hides and skins sector is at a crossroads, possessing the raw material potential for economic transformation but constrained by value chain inefficiencies that have persisted for the last twenty years.

Recommendations

To address the chronic challenges and capitalize on the sector's potential, a multi-stakeholder, integrated approach is necessary. The recommendations are as follows:

A. For the Government and Policy Makers:

Enforce Quality-Based Pricing: Implement and enforce a regulatory system that differentiates prices based on quality grades at the primary market level. This will financially incentivize pastoralists and farmers to improve their animal husbandry and flaying practices.

Invest in Critical Infrastructure: Direct public investment towards establishing modern collection centers, cold storage facilities, and transportation systems in major livestock areas to minimize post-slaughter damage and deterioration.

Strengthen Extension Services: Launch nationwide awareness and training campaigns for farmers, pastoralists, and abattoir workers on proper animal handling, humane slaughter, scientific flaying techniques, and effective preservation methods (e.g., salting).

Support Domestic Value Addition: Provide targeted incentives (tax breaks, subsidized loans) for tanneries and manufacturers that invest in producing high-value finished leather products (e.g., footwear, garments, upholstery) for export and the growing domestic market, rather than just semi-processed leather.

Streamline the Supply Chain: Develop and promote a digital market information system to provide real-time price data to all actors, reducing information asymmetry and the power of intermediaries.

B. For Tanneries and Exporters:

Backward Integration: Tanneries should actively engage in backward integration by establishing direct procurement channels with primary producers or cooperatives. This ensures a more consistent supply of better-quality raw materials and allows for knowledge transfer.

Invest in Modern Technology: Continuously upgrade processing technology to improve efficiency, comply with international environmental standards (especially in waste water management), and produce a wider variety of high-quality finished leathers that meet specific buyer requirements.

Diversify Markets and Products: Move beyond traditional markets and explore new international niches for Ethiopian leather. Simultaneously, diversify product portfolios to include fashion leather, high-grade upholstery, and specialized industrial leathers.

C. For Farmers, Pastoralists, and Cooperatives:

Adopt Best Practices: Actively participate in training programs to improve animal husbandry, reduce skin diseases, and master proper flaying and preservation techniques.

Form Cooperatives: Strengthen and form marketing cooperatives to aggregate hides and skins, achieve economies of scale, negotiate better prices directly with tanneries or exporters, and bypass exploitative intermediaries.

By implementing these targeted recommendations, Ethiopia can transform its hides and skins sector from a supplier of low-grade commodities into a reliable, high-value global player, thereby maximizing its contribution to national economic development, job creation, and foreign exchange earnings.

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