



Information: Overview of Bahir Dar University

Bahir Dar University
54,000 Students



1. Institute of Technology,
2. **Ethiopian Institutes of Textile and Fashion Technology (EiTEX),**
3. Institute of Land Administration
4. College of Agriculture and Environment,
5. College of Medicine and Health Sciences,
6. College of Business and Economics
7. College of Natural sciences
8. Maritime Academy and
9. Sport Academy

EiTEX = 3000 STUDENTS



- i. Bsc and Msc Degree program .
 1. **Leather Engineering, LPDE (180 students)**
 2. Textile Engineering
 3. Garment Engineering
 4. Fashion Design
 5. Textile & Apparel Merchandizing
 6. B.Ed. in Garment Technology
 7. B.Ed. in Textile Technology
- ii. PhD programs
 - Fashion Technology
 - Textile Technology

Annual Conference on CTA (8th, 2019)



BAHIR DAR UNIVERSITY
ETHIOPIAN INSTITUTE OF TECHNOLOGY FOR
TEXTILE & FASHION (EiTEX)



TITLE: Design Related Challenges of the Ethiopian Leather Footwear Manufacturing Industries and possible areas of Interventions

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1. Introduction

What is Designing?

- Designing is a process of creating and improving a given product or process (Design Varies with time).
- It is Value Addition
- It primary process before process or product made (Apparel, Building, Automobiles, Road, Electronics etc.)

Design can Help:

- To translate ideas into reality.
- To Change existing situations into preferred ones.





Cont.



Currently **Footwear is a fashion oriented product** dependent on seasonal changes.

➤ Now a days Footwear industry is **characterized** by a **fierce Competition** due to:

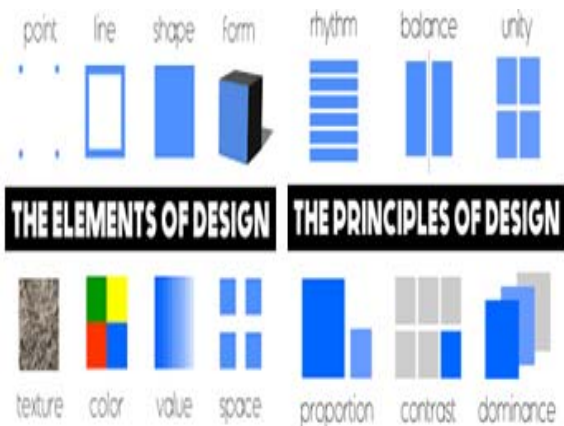
- ❖ **Continues change** in demand of customers
- ❖ **Availability of Variety designs.**
- ❖ **Continuous innovation both in functionality and Esthetics**



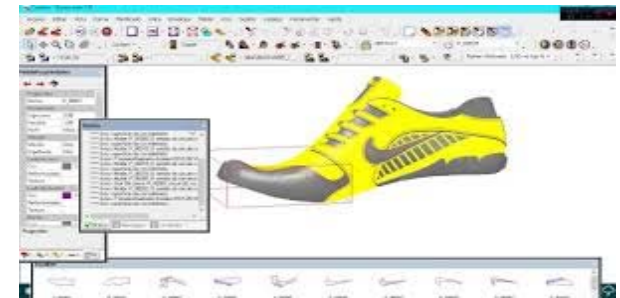
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i. Manual Footwear Design



ii. Computer based Footwear design



A successful and good design is achieved when all the **elements and principles of design** work together harmoniously

Good Design = Elements + Principle

Footwear **Manufacturer** need to focus on **designing** based on **customers demand** for **successes full market share**.



2. Background of the Study



In today's Footwear Manufacturing, buyers are demanding:

- i. Lower prices,
- ii. Best quality product,
- iii. **Best design** and
- iv. Long service.



➤ **Ethiopia's footwear industry** is priority sector **and** has significant international comparative advantages because the country has:

- ❖ huge raw material source
- ❖ cheap labor
- ❖ Good Electric power supply

Source: (Oqubay 2015).



Ethiopian Livestock size in million



		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cattle	Ethiopia	40 390	43 125	47 571	49 298	49 884	50 382	53 382	53 990	54 000	55 694
	Africa	240 827	246 139	254 375	268 514	269 529	272 629	283 199	288 262	291 267	295 646
	Share	16.77	17.52	18.70	18.36	18.51	18.48	18.85	18.73	18.54	18.84
Sheep	Ethiopia	20 734	23 633	26 117	26 117	25 980	25 509	24 221	25 489	26 500	26 537
	Africa	251 253	255 901	269 875	272 799	278 484	287 338	291 974	297 538	302 319	305 687
	Share	8.25	9.24	9.68	9.57	9.33	8.88	8.30	8.57	8.77	8.68
Goat	Ethiopia	16 364	18 560	21 709	21 799	21 961	22 787	22 613	24 061	25 000	25 035
	Africa	274 131	275 958	301 895	313 779	317 290	324 372	332 593	339 366	345 778	350 224
	Share	5.97	6.73	7.19	6.95	6.92	7.02	6.80	7.09	7.23	7.15

Source: FAOSTAT

- **Brazil** has the largest cattle inventory in the world followed by **India and China**.
- Ethiopia is **Africa's leading** livestock producer
- This huge potential resource will **play a significant role for the Footwear manufacturing industry**



Footwear Export destinations: Europe, Africa, Asia, USA and North America,

Source: Yiheyis 2014a.





Leather Footwear in Ethiopia



- The leather footwear sector is the **largest** component of leather production which accounts **>65%** of the **global** leather consumption (**Mwinyihija 2015**).
- The **Ethiopia** leather footwear sub-sector accounts for **72%** of all leather and leather products (**Jote 2015**).
- Leather shoes in Ethiopia **started** in 1930s: (Armenian merchants founded :
 - Tikur Abay Shoe Factory (Asko Tannery) and
 - Anbessa shoe factory (**Tetsushi Sonobe , 2007**).



Export overview: **GDP I** (2010/2011-2014/2015)

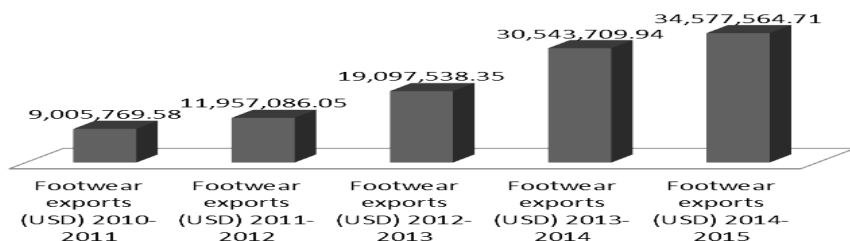


Export Overview of Ethiopian Footwear Industry in million USD 2014/2015

Product Type	Finished leather	Footwear	Goods and Garment	Glove	Total
Plan	136.6	315.5 (63.5%)	36.67	8.05	496.8
Performance	92.10	34.57 (26.03%)	0.83	5.34	132.86 (26.7%)

➤ This indicates that the manufacturing sector performance is low and an improvement is required.

Footwear export in USD



Source: LIDI, Five year development plan, 2015, p.29



GDP II: (2015/16-2019/20)

Leather and Leather product Export plan in million USD



Type	Finished leather	Footwear	Goods and Garment	Glove	Leather Articles	Total
Plan (2019/2020)	214.1	485.8 (60%)	4.9	75.4	19.6	800

❖ This indicates that the **leather footwear sub-sector** has given **more emphasis** compared to the other leather subsectors..

❖ However, based on the **previous plan year performance (26.03%)**, the sector **will not also meet** the new or current plan year performance **unless an improvement** method is used by the footwear factories.

❖ To overcome this problem different **researches** are required





3. Problem Statement



- Currently Ethiopia is emerging as one of the leading footwear exporters in **sub-sahara Africa** along with South Africa (Workman 2015).
- However, Ethiopia's **share in the global** footwear market is lower than its place in leather trade (Lakew 2015b).
- In the year **2015**, Ethiopia accounted market share **0.02%** of the total world export footwear while **China (20.1%)** and **Italy (14.2 %)** (Workman 2015).

Different Studies done on Ethiopian leather footwear industries by UNIDO (2012), LIDI (2015), Japan Embassy (2008) and other researchers indicated that:

- ✓ The footwear sector is not performing well.
- ✓ The footwear sector **has** many **unresolved issues** and **constraints** that restrain the development of the sector



Identified Common **Constraints and gaps** of Leather Footwear product industry



According to **UNIDO** Independent Evaluation Report (2016) , **Mines ParisTech** Working Paper (2016), **UNCTAD** (2018) and other shows the **major problems occurring** in the leather footwear factories are:

i) **Shortage of finished leather**

ii) Lack of good Management and **skilled labor**

iii) **Design weaknesses**

- Difficult to **compete** with the sophisticated and fast changing design of footwear and
- **Poor ability** to develop attractive designs.





Ethiopian Footwear production Industries



1. Customer order product (Customer order based on their own design)

- Most of Ethiopian Footwear manufacturing industry (Export) follow customer order product.
- It is fixed order.
- Less Market share
- Possibility to loose customers.

2. Manufacturer product (Based on Market research)

- It is flexible.
- Increase Market share.
- Increase product selling cost.
- Increase profit.



Cont.

➤ Not every product will appeal to every customer or client base, so defining the target market for a product is a critical component that must take place early in the product development process.

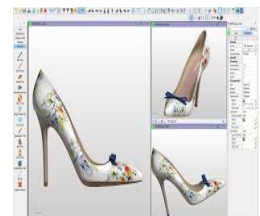
➤ To increase the competency and global performance of the Ethiopian footwear product sector:

➤ There is critical need to enhance the capacity in the areas of:

i. Forecasting,

ii. Designing,

iii. Product development and Innovations





i. Forecasting (Designing)

- **Forecasting** is a process of **estimating future growth and outcomes of product** based on **past events** (Colors, textures, materials, prints, accessories etc).
- It helps to **attract consumers to purchase products** in the near future.

ii. Product development (Designing)

- It is **creation new product or modification of an existing product** with different characteristics that satisfies customer demand or want.

Product development includes:

- **Concept or Idea generation** based on customer needs and want,
- **Designing,**
- **Product development and Testing**
- **Marketing research and pricing,**
- **Commercialization**



Cont.



- **To increase export market share of Ethiopian footwear, design plays major role where the foreign companies have a huge advantage, with a better global exposure.**
- **To earn better revenues.**
- **Design and designing being the base of profit for any organization, becomes a vital area in terms of Research and development.**



Objectives



Primary objectives

❖ The main objectives of this study is to **identify design related challenges of Ethiopian footwear industry** in order to **propose appropriate intervention method** so as to improve its global competitiveness.

Specific objectives

- Extensive review of the footwear sector to **evaluate the current designing methodology being practiced.**
- To **Identify root causes of design challenges** and gaps of footwear Industries.
- To **Propose possible intervention** and improvement area which fill the gap
- To **Develop Footwear designing manual** and related material that facilitate footwear designing
- To **make any other recommendations** as may be appropriate for sustained growth and competitiveness of the sector



Research Questions



- **What are the existing designs and designing methodologies** being currently practiced in the footwear Industry?
- **How to identify the root causes of design challenges** and gaps of footwear Industries?
- **What are the possible intervention area** and resources required for intervention?
- **How the interventions are implemented?**
- **How to Develop Footwear designing manual** and related material?
- **What are the recommendations** for sustained growth and competitiveness of the sector



Scope of the study



- The Ethiopian footwear (shoe) industry is, composed of two sub-sectors:
 - i. The **larger mechanized shoe industries** sub sector and
 - ii. The **smaller production units** - micro, small and medium enterprises including the informal ones.
- As LIDI, 2017, there are currently **20 large mechanized** footwear factories in the formal sector.
- Larger mechanized ones which are **export-oriented**.
- Thus, **this study** is limited or gives more **focus** in assessing, reviewing and analyzing design challenges to **large mechanized** footwear in order to propose possible intervention area and improvement method.



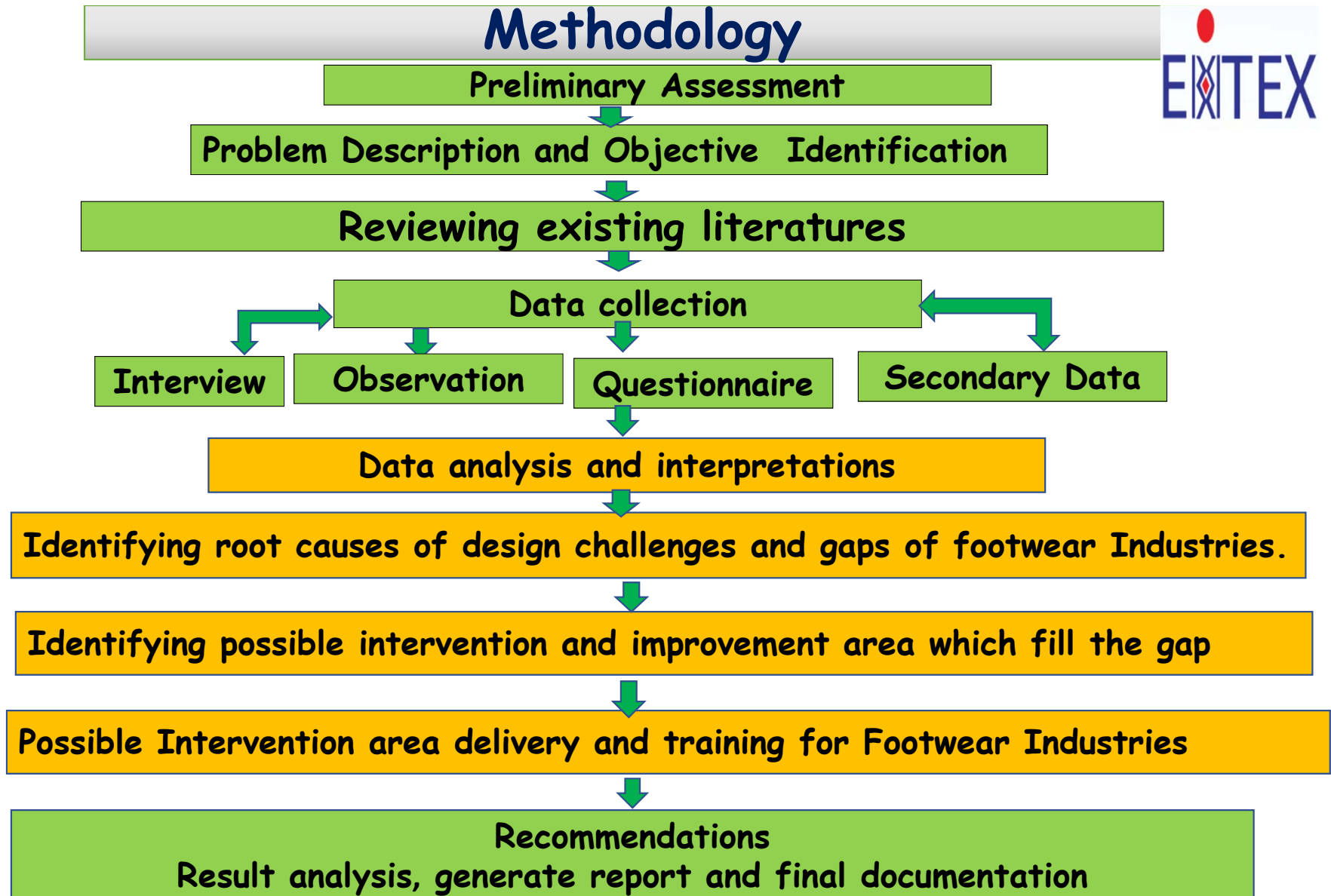
Significance of the study



- ❖ **Capacitating** the industries in the process of contemporary designing
- ❖ Enhancing **design awareness** in order to compete in global market.
- ❖ Creation of **design** as a marketing tool.
- ❖ **Motivating** designers to follow **seasonal change** in order to **search** new designs.
- ❖ **Improving quality** of life by encouraging good design.

Beneficiaries Of this Paper Can be:

- ❖ Ethiopian footwear industries,
- ❖ ALLPI,
- ❖ EITEX and Researchers





Research Team



S/n	Name	Work and Position	Degree and Field of Study	Nationality
1	Mr. Fitsum Etefa	Lecturer and Leather Engineering program Head	MSc. in Leather product design and Engineering	Ethiopian
2	Mr. Suril Panneerselvam	Lecturer	Msc. in Leather Technology	Indian
3	Mr. Yordanos Hailu	Lecturer	(MSc. in Leather product design and Engineering)	Ethiopian



Work Plan



Time	Activity	Duration
Sept 2018- Feb 2019	Data collection, Data analysis and interpretations.	6 Months
Mar 2019- May 2019	Identifying root causes of design challenges and gaps of footwear Industries	3 months
Jun 2019- Aug 2019	Identifying possible intervention and improvement area	3 Months
Sep 2019 - Nov 2019	Possible Intervention area delivery and training for Footwear Industries	3 Months
December - 2019	Recommendations Result analysis, generate report and final documentation	1 Month
	Total	16 Months



❖ Result so far attained



Data Collection

Primary Sources

- Observation
- Interview and Discussion
- Questionnaire



Secondary Sources

- Documents,
- Researches,
- Literature review
- Industry records



❖ Result so far attained



✓ Research groups **visited** some of Footwear Manufacturing Industry in Addis Ababa

➤ **Common Footwear Manufacturing process the industries following**

S/n	Section	Machine Type
1	Design and product development section	Manual Designing
2	Leather cutting Department	Machine and Manual based
3	Skiving and Stitching section	Machine
4	Insole Attachment section	Machine and Manual based
5	Lasting and Bottoming Section	Machine and Manual based
6	Finishing and Inspection section	Machine and Manual based
7	Packing Section	Manual



Local Footwear mfg Company Profile



No.	Company Name	Market Share		Location	Owners Nationality
		Local	Export		
1	Anbessa Shoe Sh. Co	96%	4%	A.A. Lideta	Ethiopian
2	Bostex Shoe Factory	10%	90%	A.A/K.Keranyo	Ethiopian
3	Crystal Shoe Factory	70%	30%	A.A/Nifas Silk	Ethiopian
4	OK Jamaica	-	-		Ethiopian
5	Kangaro Shoe Factory	90%	10%	A.A/Nifas Silk	Ethiopian
6	Peacock Shoe Factory			A.A/Nifas Silk	Ethiopian
7	Ramsay Shoe Factory	45	55	A.A/N-Silk/Industry Zone	Ethiopian
8	Ras Dashen Shoe plc	-	-	A.A/N-Silk/Industry Zone	Ethiopian
9	Sheba Leather Industry Plc	-	-	Tigray/Wukro	Ethiopian
10	TikurAbay Shoe Share Com	80%	20%	A.A/Asko	Ethiopian
11	Wallia Leather and Leather Products	-	-	A.A /Kaliti	Ethiopian
12	Modern Zege leather product	90%	10%	A.A/Kalit	Ethiopian
13	Ethio Footwear Cluster	-	-	A.A/Yeka/Shola	Ethiopian
14	Park shoe & Leather Production Factory	-	-	A.A	Ethiopian



Foreign Footwear mfg Company Profile



No	Footwear Companies Name	Location	Market Share		Nationality
			Local	Export	
1	Fontanina Shoe Factory	A.A. Saris	50%	50%	Saudi
2	George Shoe Factory	A.A	0%	100%	Taiwan
3	Huajian International Shoe City Plc	Dukem/Eastern Industry Zone	0%	100%	Chinese
4	New Wing - Addis Shoe Factory Plc	A.A/Saris	0%	100%	Chinese/Italy
5	Oliberte Ltd (Ethiopia Branch)	A.A/Akaki	0%	100%	Canadian
6	Mohan.PLC	Gellan	75%	25%	Turks



Sampling and Questionnaires Preparation



- ❖ Total Footwear Manufacturing Company = 20 Company
- ❖ Estimated Man power in Designing Section per Factory = 4-6
- ❖ Minimum estimated population = 80 personnel
- ❖ Maximum estimated population = 120 personnel



Questionnaire preparation: Sample size

Types of Sampling Techniques



Probability

1. Simple random sampling.
2. Stratified random sampling.
3. Systematic random sampling..
4. Cluster sampling.

Non Probability

1. Quota Sampling.
2. Convenience sampling.
3. Purposive sampling (Homogeneous).
4. Snow ball Sampling.

Determining Sample Size

- i. Using a census for small populations (≤ 200 entire population)
- ii. Imitating a sample size of similar studies.
- iii. Using published tables, and
- iv. Applying formulas to calculate a sample size.



❖ Remaining work



- ✓ Questionnaire Preparation
- ✓ Data analysis and interpretations
- ✓ Identification of Footwear design challenges
- ✓ Identification of possible intervention and improvement area
- ✓ Possible Intervention area delivery and training for Footwear Industries
- ✓ Recommendations
- ✓ Result analysis, generate report and final documentation



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Questions
Comments and
Suggestions

