

Reimagining Textiles and Apparel in East Africa

TEXTILES PITCH DECK

JANUARY 2021



This study has been funded by UK aid from the UK Government; however, the views expressed do not necessarily reflect the UK government's official policies



Executive summary

Market opportunity

The global textile market is large (~USD 1.3 trn) and is expected to experience slow growth <1% p.a. over the next five years driven by dampened demand and increased prominence of cost reduction measures due to COVID-19; **multiple innovations exist in the textile industry – in particular, digital printing could be relevant for East Africa**

East Africa's textile industry is worth ~USD 2.8bn and highly import-oriented (60-70% of demand is met by imports) and representing an import substitution potential of ~USD 1.7bn

- **Kenya and Ethiopia are the biggest players** in the region accounting for ~60% and ~30% of textile imports respectively
- **Textile demand is driven mostly by the export apparel industry** with **global buyers indicating that they would be willing to pay a 10% premium** for regionally-sourced material

Cotton textiles production in East Africa represents a USD 860mn import substitution opportunity

- 80% of demand is met by imports **primary from China and India**
- There are ~30 integrated cotton textile mills in the region mostly in Kenya however, **local production is hampered mainly by quality, compliance and cost challenges**
- **Kenya and Uganda present a near-term opportunity (<2 years)** for investment driven primarily by enabling environment and cost competitiveness respectively

Investment opportunity

Two investments could be considered in the short to medium term with varying return and risk profiles

- **Set up integrated cotton textile mills** in Kenya and Uganda in the short-term and Ethiopia in the medium-term – investment size USD 30-40mn; IRR of 8-10%; moderate risk
- **Expand textile mills with digital printing** capabilities – investment size USD 1-2mn; IRR of 8-10%; high risk

Next steps

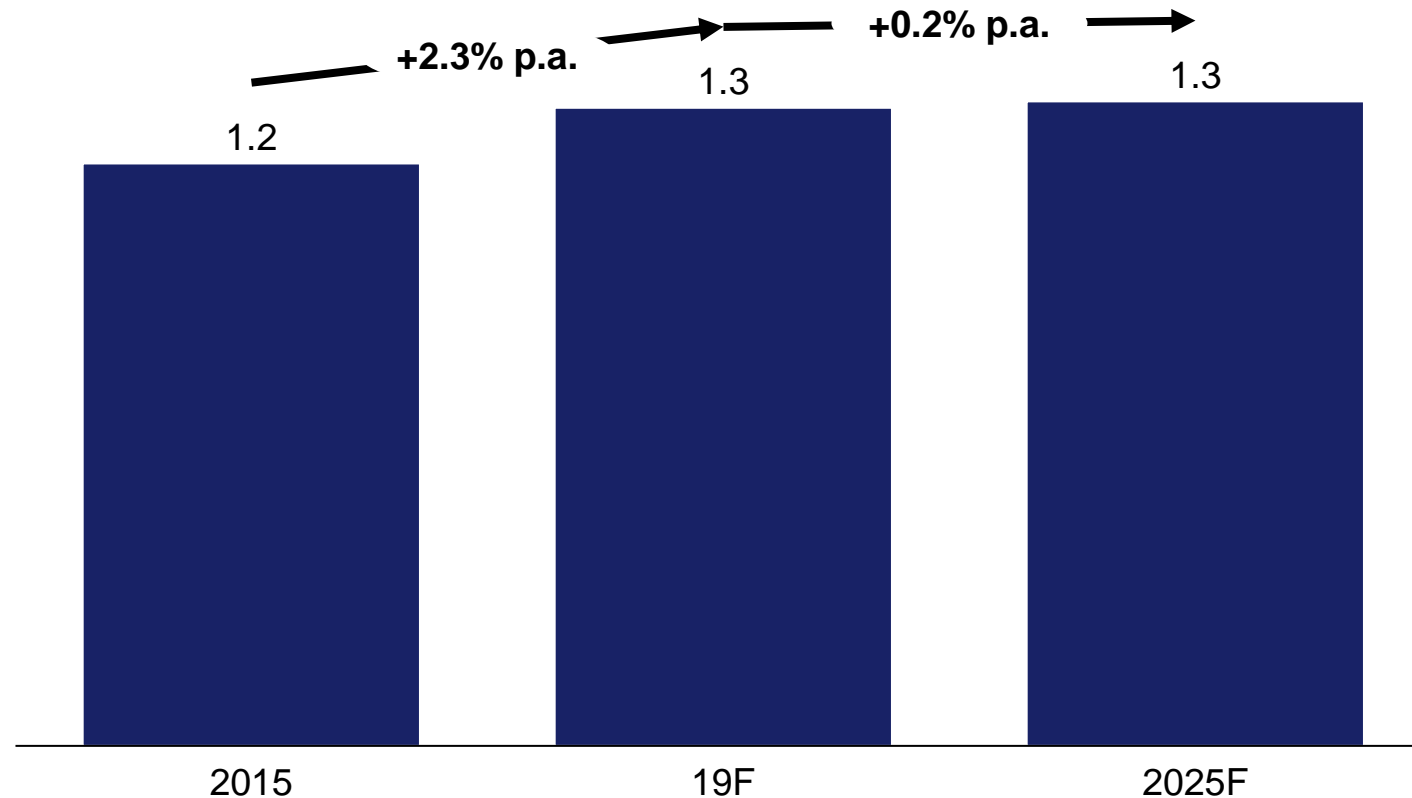
FCDO can offer three forms of support to interested investors 1) Help with engaging with the investment community in East Africa; **2)** Facilitate introductions with potential local partners; **3)** Facilitate introduction with potential international (co)investors/partners to explore further

- **Market opportunity**
- Investment opportunities
- Outreach roadmap

Globally textile is a USD ~1.3T market expected to grow at 0.2% p.a. post-COVID-19

Global textile sales¹²

USD Trillion (nominal)



1. Assumes most likely COVID scenario would play out, with possibilities ranging from -0.3-0.2% p.a. growth

2. This includes home textiles

Source: IHS Global, Industry experts, Consulting firm in partnership with Oxford economics press search

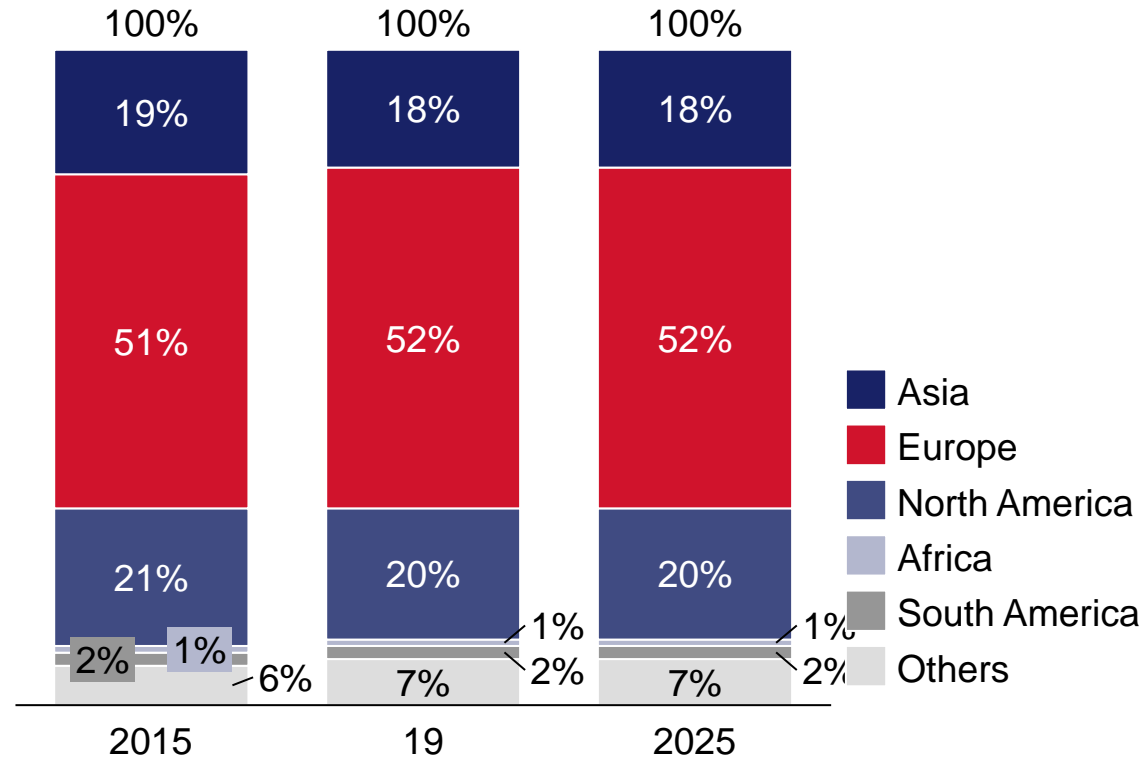
COVID-19 is expected to dampen overall industry growth driven by two key factors;

- Renewed focus on cost efficiency by sourcing companies
- Significant reduction in apparel demand as consumer deprioritize buying clothes

Imports of textiles have been mostly focused on Europe due to increased local production in Asia

Textile consumption imports¹

USD Billion, nominal



1. This includes non-apparel textiles

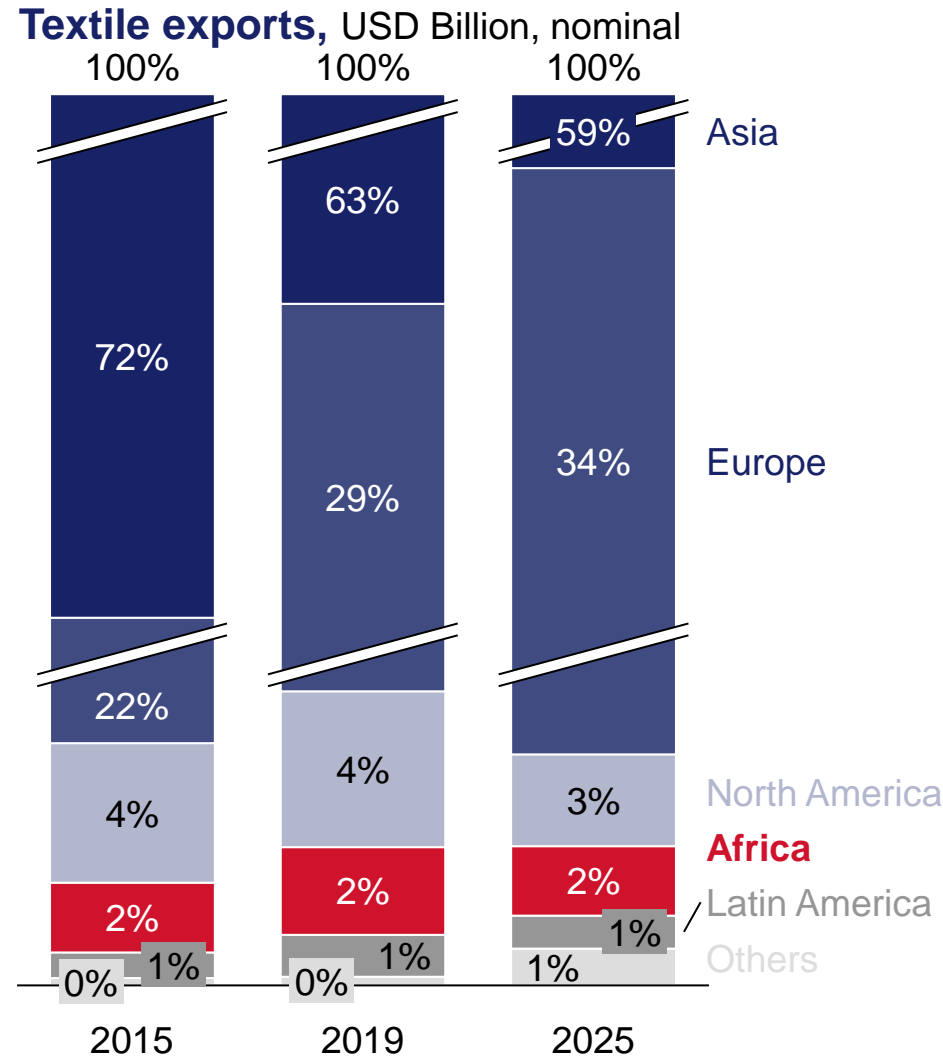
Source: IHS Global; Expert interview, Press search

Outlook on imports: ↑ Increasing ↓ Decreasing

Import outlook by region

Asia	→	Increased local production is expected to supply rising demand of the region
Europe	↑	Significant growth faced by apparel companies has increased demand of fabric and textile needs of the region
North America	→	Flat growth expected due to limited in-region apparel production i.e., sourcing mostly from emerging markets
Africa	↑	Higher growth expected due to rising population, increased apparel sourcing in East Africa and low presence of textile in the continent
South America	↑	Growth of apparel manufacturing industry (as a result of nearshoring)

China will continue to be the top textile export market, although its share is declining



Outlook

Asia's share of textile exports share will **decline due to trade tensions in the United states, increasing local demand, reduction in size of workforce**; however, Asia will **continue to be a dominant player** given the sheer size of countries like China, India and Pakistan,

Share of Europe's textile exports share is **expected to rise**; as European apparel companies continue to **favor nearshoring** to help drive their **cost competitiveness and speed**

Share of North America **textile exports remains flat**; as growth is expected to be low and stable

Africa's textile exports shows flat growth due to **limited textile industry and poor textile quality of** the business. Increased commitments has been made by government to support the industry



Textile supply still led by Asia, with Africa remaining stable at













4%

of the total market

Multiple innovations exist in the textile industry – digital printing could be relevant for East Africa

 Prioritized areas
  Investment opportunity
  Low
  High

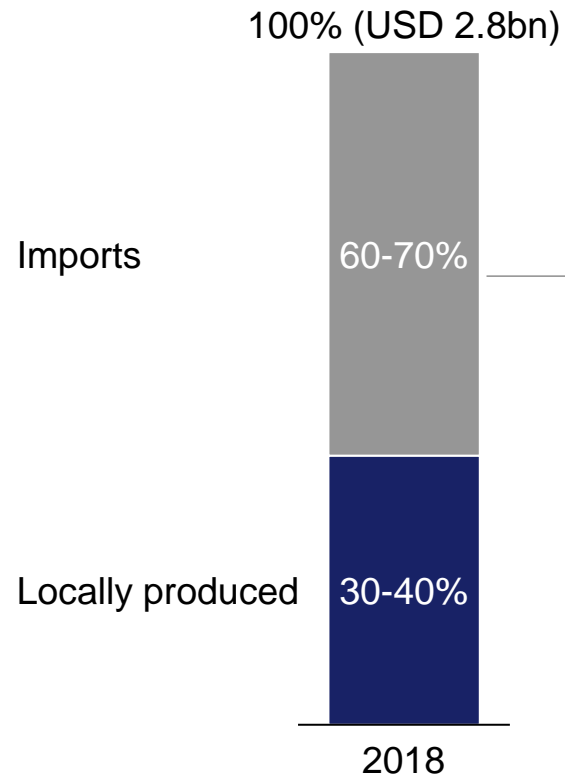
NOT EXHAUSTIVE

Innovations	Descriptions		Trend in action	Implication for East Africa
Production process	<ul style="list-style-type: none"> Nanospinning technology to develop breathable, water proof fabric that is comfortable 		The Northface uses technology to develop FUTURE LIGHT jacket	 Global brands driving innovation in fabrics prefer factories with nearshoring potential
	<ul style="list-style-type: none"> 3D knitting takes a digital design and turns it into a piece of clothing 	Ministry of Supply°	Use of an in-store 3D knitting that creates customized knitwear since 2017	 Commercial application of technology has not begun for apparel industry ¹ :
	<ul style="list-style-type: none"> Digital printing process of printing digital-based images directly onto fabric 		Dupont Artistri provides digital ink for advanced printing of textile mills	 Market is large and fast-growing with an added advantage of being more sustainable
	<ul style="list-style-type: none"> Direct spin-knitting technology involves spinning yarn from roving and knit fabric on the same machine 		Pai Lung creates knitting machines to support textile production	 Requires specialized knowledge to apply technology
Material process	<ul style="list-style-type: none"> E-skin creates fabrics which monitors fitness and health using circuitry 	Xenoma	Xenoma creates smart sport-wear using e-skin technology	 Niche market requiring specialized technology to operate
	<ul style="list-style-type: none"> Genetically engineered microbes are being used to produce dye driving sustainability 		Algalite uses algae to create environmentally friendly dye	 Requires specialized knowledge and skills to develop material
	<ul style="list-style-type: none"> High performance dyes are synthesized from leaves and the non-edible shells of nuts 		Archroma uses dyes to create eco-conscious fashion	 Requires specialized knowledge with few niche business cases

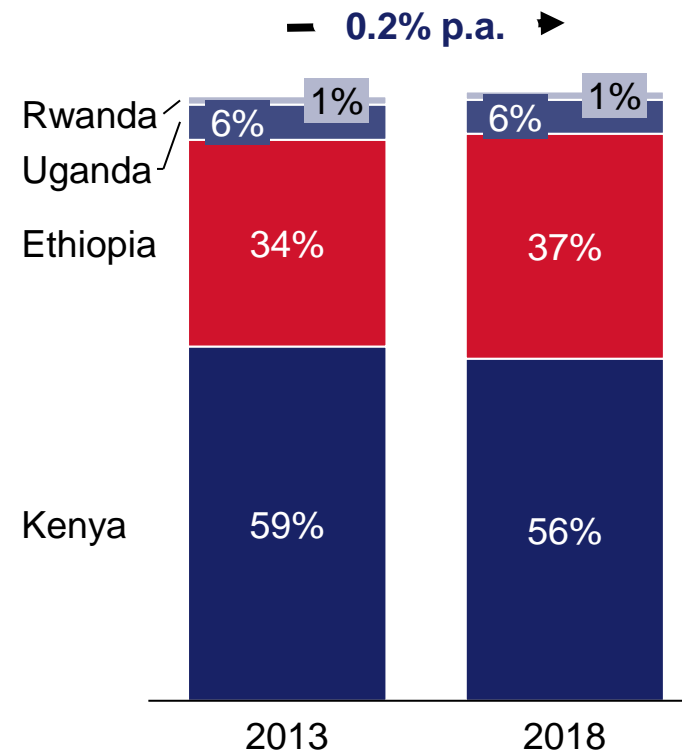
1. Commercial application of technology is evident in shoes

East Africa¹ textile industry is estimated at ~USD 2.8bn and is highly import-oriented; Ethiopia and Kenya drive ~90% of region's demand

East Africa textile demand by source, % of total 2018



Imports by country breakdown²



Key Takeaway

Industry is highly import-oriented due to underdeveloped local / regional textile industry

Kenya and Ethiopia are the largest importers – driven by their growing apparel industry

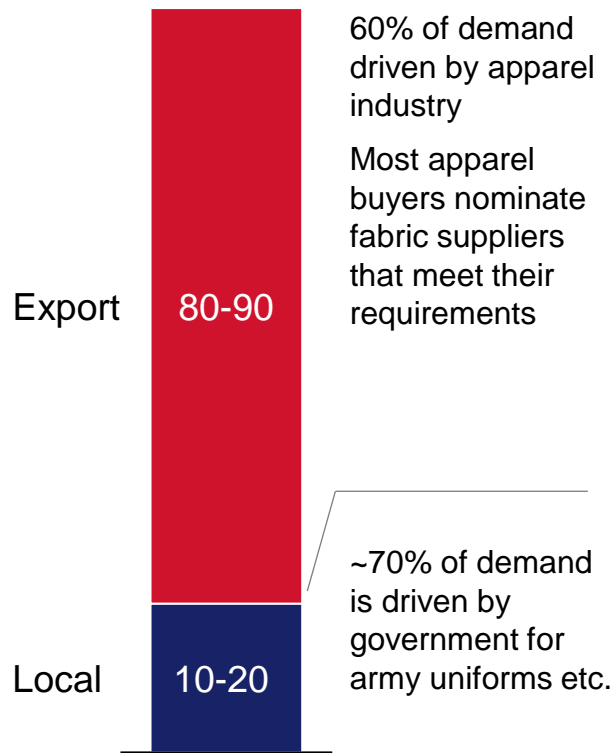
1. Rwanda, Uganda, Ethiopia and Kenya

2. Includes non-apparel textiles

Source: Msingi Country report, Expert interview

East Africa's textile demand is driven mostly by the export apparel industry – they would be willing to source from the region if multiple requirements are met

Local textile demand by destination % of total



Most global buyers are willing to source from the region if their sourcing requirements are met

Quality



Locally produced **textiles do not meet export quality standards...**

- Global apparel player

Compliance



Our suppliers **need to follow our ethical requirements**, most local producers lack effluent treatment

- Global apparel player

Cost



If the output can match export quality . . . we are willing to **pay as much as a 10% price premium** for regionally sourced material

- Global apparel sourcing manager

Capacity



Most mills cannot **meet the minimum quantity** that a large company like us needs...

- Head of apparel sourcing company

Marketing



The mills **do not heavily market their capacity, qualifications** to potential buyers leading to a mismatch in the market

- Global apparel sourcing manager

COVID-19 has accelerated global buyers need to diversify sourcing out of Asia

There is a huge opportunity to develop a textile value chain in East Africa, especially in cotton and man-made textiles

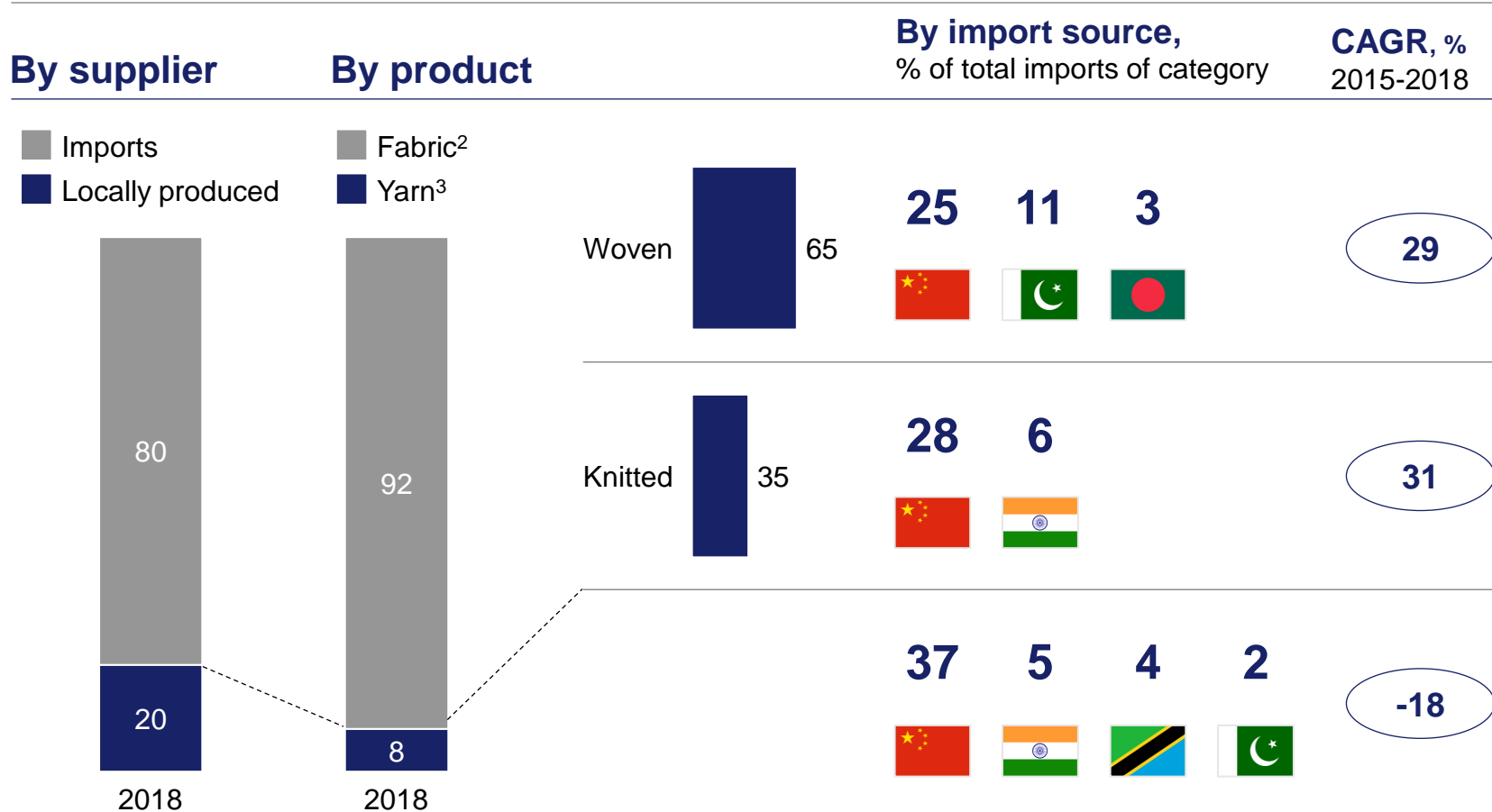
■ Deep-dive ● Low ● High

Textile input fibre	Description	Market size, USD million	Textile mills present in EA ¹ , #	Relevance for East Africa
A Cotton	<p>Cotton fibres are spunned into yarns, then wools in spools.</p> <p>Fabric production can be then done through knitting or weaving, then dyeing and finishing</p>	~860	18	<p>● Large demand exists for cotton fabrics (with import substitution potential of ~\$860 Mln)</p> <p>Significant expertise exists within the region</p>
B Man-made	<p>Man-made fibres such as polyester, viscose are used as major fibre blend</p> <p>Eco-friendly textile materials like hemp, bamboo, organic jute can be used as a fibre substitute for textile production</p>	~860	<p>5</p> <p>1 polyester & viscose, 2 viscose only, 2 poly-viscose only</p>	<p>● Large demand exists for man-made fabrics (with import substitution potential of ~\$860 mln)</p> <p>Limited sizeable players in the region – presenting an opportunity to grow the segment</p>
C Wool and other natural fibres	<p>Processing wool from the sheep requires cleaning and scouring, grading, sorting and carding to get fibres ready</p>	~100	1	<p>● Market size remains small and limited accounting for ~5% of overall fibres used</p>

1. Uganda, Rwanda, Kenya and Ethiopia

East Africa cotton textiles are mostly imported as fabrics from China, India etc.

East Africa cotton textile demand, % of total



~25% of East Africa's fabric imports are from China

Imported fabrics are the **largest and fastest growing segment** within the region to service the apparel industry (most in EPZs with duty free import benefits)

Yarn imports are low due to undeveloped local industry i.e., limited textile industries in EPZs, most serve local market and do not receive duty free import benefits

1. Rwanda, Uganda, Ethiopia and Kenya; 2. HS Codes for weaving-5207, 5208, 5209, 5210, 5211, Knitted apparel -6001, 6002, 6003, 6004 and 6005.

Assumed 60% of overall output goes to cotton market; 3. HS Codes for yarn-5205, 5206 and 5207

CAGR = Compound Annual Growth Rate

Source: Msingi Country report, Expert interview, COMTRADE

Today, there are 32 cotton textile mills, most in Kenya which are integrated

 Fully applicable
  Somewhat applicable
  Kenya
  Ethiopia
  Uganda

Mill types		Spinning >	Knit >	Weaving >	Dyeing & finishing	# of mills in the region	Average capacity utilization
	Fully assorted integrated mills ¹					 2  2 4	~60 ² %
	Integrated mills					 6  2  1 9	
	 Knit					 1  1 2	
	 Weave					 1	
	 Weave knit					 2	

Integrated mills have operational advantages due to **improved speed to market**, as mills reliant on inputs (i.e. yarns) could face extra 6-8 week lead time due to shipping and clearance charges

1. Some are integrated until apparel

2. Utilisation has dipped even further to due to COVID-19 slowdown

Source: Msingi dataset, Expert interviews

Growth of local cotton textile production is hampered mainly by quality, compliance and cost

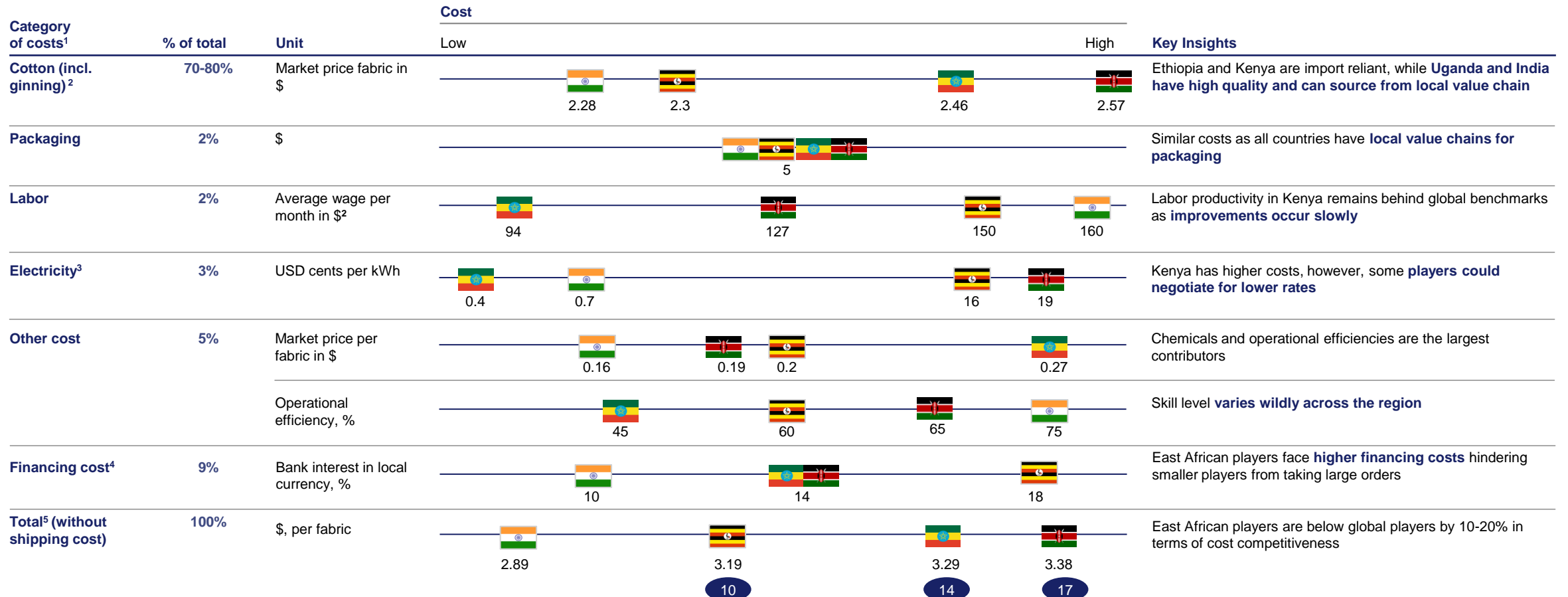
		Detailed further	
Impact on growth	Categories	Description	
	High	Quality Fabrics produced are behind international quality standards due to; <ul style="list-style-type: none"> • outdated machinery, used in existing textile mills • limited skilled personnel, to support textile machinery (especially dyeing processes) 	“ ” Most of the machines across the industry have been around for 30+ years....there'll be quality challenges - Local textile player
		Compliance Existing production process for textile mills do not comply with global buyer's supplier requirements in terms of treating effluents	“ ” To have polluted water go back to the municipalities.....none of the brands want to be associated with that - Apparel sourcing manager
		Cost 10-20 % more expensive than global players due to: <ul style="list-style-type: none"> • High costs from sourcing cotton • Operational inefficiencies and • Higher financing costs 	“ ” Operational inefficiency contributes to cost competitiveness challenges - Apparel Investor, IP
		Capacity Dominated by large players with small-scale textile mills unable to produce large enough quantities to meet export demand	“ ” Some mills miss out on orders due to the large size - Local textile player
	Low	Marketing Limited drive by local players to market their products to global brands and sourcing companies	“ ” Mills could do a lot more to market their products to exporters - Global apparel sourcing manager

Largest challenges faced by local production center around;

- **Quality concerns**, in terms of the fabric output provided by the textile mills
- **Higher cost of production**, compared to global players due to inefficiencies
- **Compliance challenges**, in terms of effluent treatment

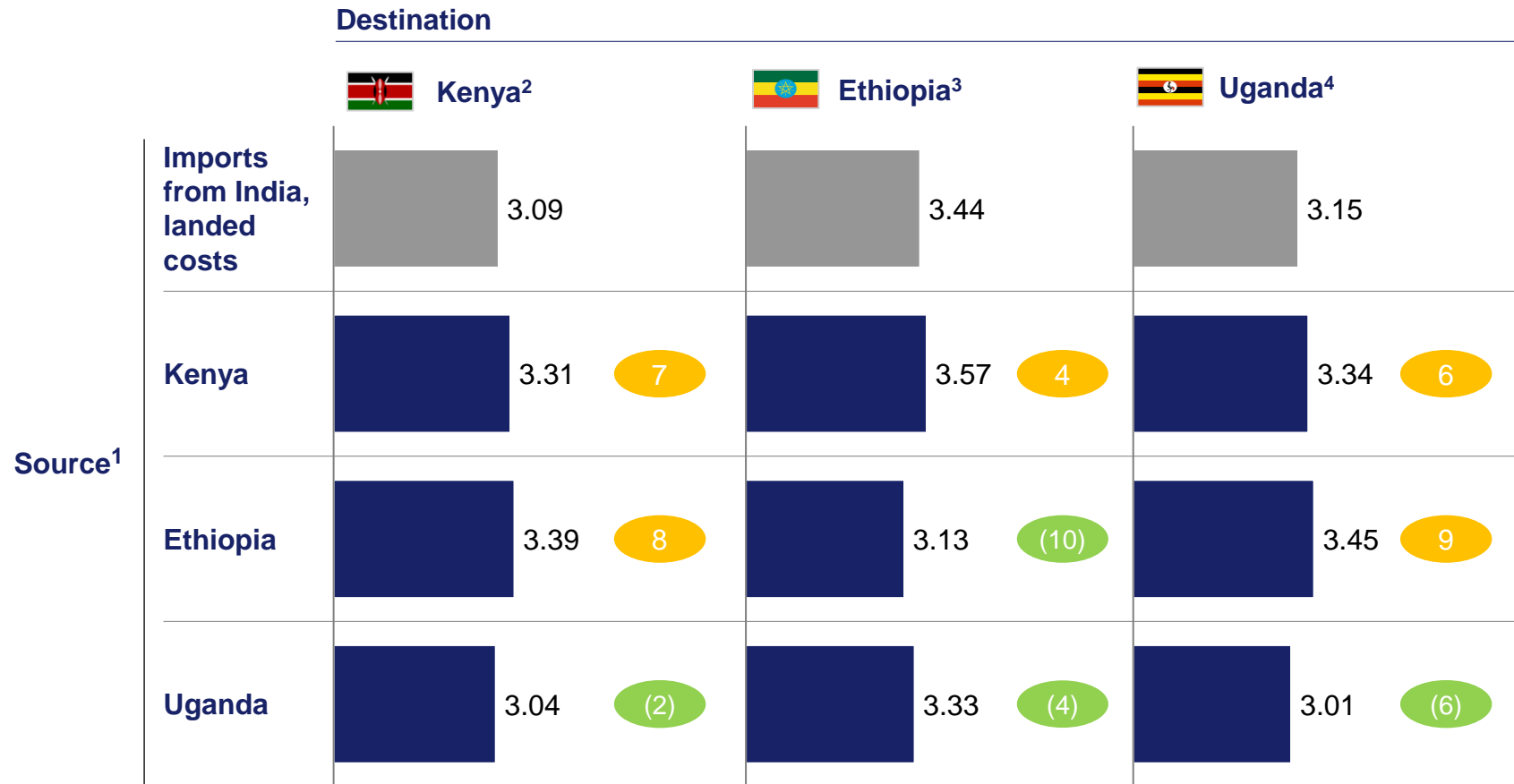
Cotton fabric production cost in East Africa could be 10-20% higher vs. global suppliers' (e.g., India)

 Kenya
  Uganda
  Ethiopia
  India
  % difference vs. India






1. Assumed costs for producing a 4.00 meter of cotton fabric and similar cotton quality among producers
2. This includes overall cost of ginning cotton across the region, using a double roller gin capacity and selected higher of local and import costs, with Kenya and Ethiopia sourcing within the region and Uganda sourcing locally.
3. This adjusts electricity by cost of running a generator, as power outages occur in the region
4. USD interest rates show much higher disparities with India at 4%; and other East African players (Kenya, Uganda) at 8% and Ethiopia at 9%
5. This is inclusive of a 5% profit margin

Improving productivity and financing costs would make all countries competitive (<10% higher cost) across the region



% difference vs. imports

-  Lower
-  Within premium (1-10%)
-  Higher (>10%)

Achieving **financing and productivity improvement levers** would ensure that each regional player can produce below the ~10% premium rate

Uganda would be **cheaper than global benchmarks** in the region if the productivity and financing matched global rates

1. Assumed that transport costs are the same across both legs of a route; costs assuming productivity and financing costs match India's

2. Based on tonnage costs of road transport from experts, Uganda transport from Kigali to Mombasa amounted to \$3 cents per cotton kg, Addis Ababa to Nairobi is at \$26 cents and imports to Nairobi at \$20 cents




3. Based on tonnage costs, transport from Addis Ababa to Kigali amounts to \$32 cents per kg and imports into Addis Ababa amounts to \$55 cents

4. Based on tonnage costs, import into Kigali amounts to \$26 cents

5. Assumed productivity and financing costs match India's current level for each regional player

The cotton textile industries in Kenya and Uganda present near-term opportunities; Ethiopia's is a medium-term opportunity





Implication for investment opportunity: ● Unfavourable ● Favourable

		 Kenya	 Ethiopia	 Uganda
Demand, 2018 imports		● ~USD 1 billion in 2018;	● ~USD 300 million	● ~USD 100 million
Cost competitiveness	Local	● Could be up to 10% higher than import costs	● Could be up to 5% higher than import costs	● Could be up to 10% higher than import costs
	Regional	● ~10% higher vs. imports	● 10-20% higher vs. imports	● ~5% higher or cheaper (if productivity and financing cost is improved) vs. imports
Ease of meeting minimum quality requirements		● Existence of technical expertise in the country	● Limited technical expertise in country	● Limited technical expertise in country due to undeveloped textile industry
Enablers	Logistics	● Central regional location; availability of ports (e.g., Mombasa) and relatively developed rail and road infrastructure	● Landlocked; relatively undeveloped road infrastructure despite existence of Ethiopia-Djibouti rail	● Landlocked; relatively developed road infrastructure
	Trade policies	● Presence of AGOA, COMESA and EBA to drive exports outside the region; EAC and COMESA allows for tariff free regional trade		
	Ease of doing business (EODB)¹	● 56 th : Open financial system with focus on protecting investors right and political stability and improving	● 159 th : Closed financial system with difficulties in accessing foreign exchange, facing worsening index performance	● 116 th : Limited operations of financial system and worsening index performance
Overall assessment		● Near term (<2 years) investment opportunity to serve large local and regional market driven by favourable enabling environment	● Near to medium term (2-5 years) investment opportunity to serve local market (due to current import challenges) and regional market (once logistics and EODB issues are resolved)	● Near term (<2 years) investment opportunity to serve regional market driven by cost competitiveness and relatively good enabling environment

1. Rank of ease of doing business index 2020

- Market opportunity
- **Investment opportunities**
- Outreach roadmap

Cotton textiles: Summary of investment opportunities



Investment opportunity	Description/Key assumptions	Investment size ¹ (\$ mn)	IRR	Risk	Financial close timeline
1 Set up integrated cotton textile mills in Kenya	Plant has a capacity of ~10,000 tonnes of fabric per year and yields a run-rate revenue of USD 50-60mn a year; key customer segment would be local apparel manufacturers starting with the exporters	30-40	8-10%		<2 years
2 Set up integrated cotton textile mills in Uganda	10% premium on current prices; given the lack of locally manufactured fabrics, apparel manufacturers are willing to pay more for locally sourced textiles which would improve their flexibility				<2 years
3 Set up integrated cotton textile mills in Ethiopia	Investment size assumed to be sufficient for machinery and construction of buildings; land will be leased Given the large import substitution potential, there might be opportunity to build a larger capacity plant thereby improving operating margins				2-5 years
4 Expand textile mills with digital printing capabilities	N.A.	1-2	N.A.		<2 years

1. Average based on expert interviews

1: Set up integrated cotton textile mills

● Low ● High

Financial highlights²

	Use of funds ¹	Amount USD Mn	Description
Investment required	 Machinery	30.0-40.0	Including spinning, knitting, weaving, dyeing and finishing machines
	 Construction		Warehouse space and installation of machinery
Return metrics USD mn	Run-rate revenue	50-60	
	Run-rate EBITDA	2.0-3.0	
	EBITDA margin %	2-5%	
	NPV	3.0-5.0	
	IRR % (pre-tax)	8-10%	

Risk assessment(not exhaustive)

	Key risks	Risk level	Potential mitigation
Market risks	Insufficient quantities of quality and affordable cotton	●	Contract multiple cotton ginning facilities in the region (including Uganda) to diversify raw material sources Maintain relationships with importers to mitigate against local supply shocks
	Low offtake of manufactured textiles from the local market	●	Involve potential buyers early during the project planning phase to understand their needs Engage with apparel firms across the region to diversify customer base
	Increased financing costs driven by rising local interest rates	●	Consider raising debt internationally at more favorable rates Investigate potential for lower-cost development finance debt
Project risks	Increased costs from import of significant quantities of other yarn (e.g., cotton, polyester) to blend with cotton	●	Involve potential buyers early during the project planning phase to align business model with products required

The total investment required is USD 30-40mn for with a capacity ~10,000 tonnes of quality cotton fabric – this would yield an expected IRR (before tax) of 8-10%

Revenue will be dependent on developing strong offtake agreements with local apparel manufactures in the country or regionally

Key assumptions

- Price: ~USD 7,150 per tonne of woven fabric; the price incorporates a 10% premium on current prices; given the lack of locally manufactured textiles, apparel manufacturers are willing to pay more for locally sourced textiles which would improve their flexibility
- Volume: Capacity utilization starts at 60% and ramps up to 80% in 3 years; potential for even faster ramp-up to capture a larger share of the market
- Operating margin: 4-6% which is in-line with Asian benchmarks
- Working capital: 1.6% of revenue
- EV/EBITDA multiple: 18.6x
- Discount rate: 6.0%

Returns could be improved further by

- Operational efficiency to boost operating margin; increased capacity could also be considered
- Positioning the brand as sustainably sourced thereby able to command a higher premium



1. Assuming land costs built as a long-term lease captured in P&L

2. Figures based on Kenya example - may need to be tailored for other countries; financial assumptions (EBITDA margins, EV/EBITDA anchored on publicly available data on listed textile manufacturers in Asia – need to stress-test further for the local market)





2: Expand textile mill with digital printing capabilities

● Low ● High

Financial highlights²

	Use of funds ¹	Amount USD Mn	Description
Investment required	 Machinery	1-2	Digital printing line
	 Construction		Assuming no construction required as digital printing line can fit within existing structures
Return metrics USD mn	Run-rate revenue	N.A	
	Run-rate EBITDA	N.A	
	EBITDA margin %	N.A	
	NPV	N.A	
	IRR % (pre-tax)	N.A	

Risk assessment(not exhaustive)

	Key risks	Risk level	Potential mitigation
Market risks	Reduction in the addressable market if technology selected is not versatile enough to print on different fabric types (e.g., polyester, or mixed fabrics)		Conduct thorough market research to inform the selection of the most appropriate technology
	Increased competition – possibility of other players acquiring these machines thereby eroding competitive edge		Maintain high customer experience levels to develop a holistic value proposition
Project risks	Lack of technical expertise in operating and maintaining the equipment leading to inefficient operations (e.g., long downtimes for maintenance)		Ensure maintenance contract signed with OEM have built-in SLAs Ensure thorough training of staff on how to use the machines properly
	Unavailability of inputs (ink) caused by supply chain disruptions as these may have to be imported		Ensure sufficient inventory of inks Diversify ink suppliers geographically to minimize likelihood of disruption






1. Assuming land costs built as a long-term lease captured in P&L
2. Figures based on Kenya example - may need to be tailored for other countries

Source: Expert interviews, NYU Stern, Yahoo Finance, Annual Reports

- Market opportunity
- Investment opportunities
- **Outreach roadmap**

Next steps

NOT EXHAUSTIVE

Investment opportunity	Engage with multiple stakeholders in the investment community in East Africa	A Connect with potential local partners	B Connect with potential international (co)investors/partners to explore further
1 Set up integrated cotton textile mills in Kenya	Investment promotion bodies <ul style="list-style-type: none"> Kenya - KenInvest Uganda – Uganda Investment Authority Ethiopia – Ethiopia Investment Commission Financiers Commercial banks Development banks Private equity Venture capital Social impact funds 	Mombasa Apparel etc.	  
2 Set up integrated cotton textile mills in Uganda			
3 Set up integrated cotton textile mills in Ethiopia			
4 Expand textile mills with digital printing capabilities		 United Aryan (EPZ) Ltd  Mombasa Apparel etc.	