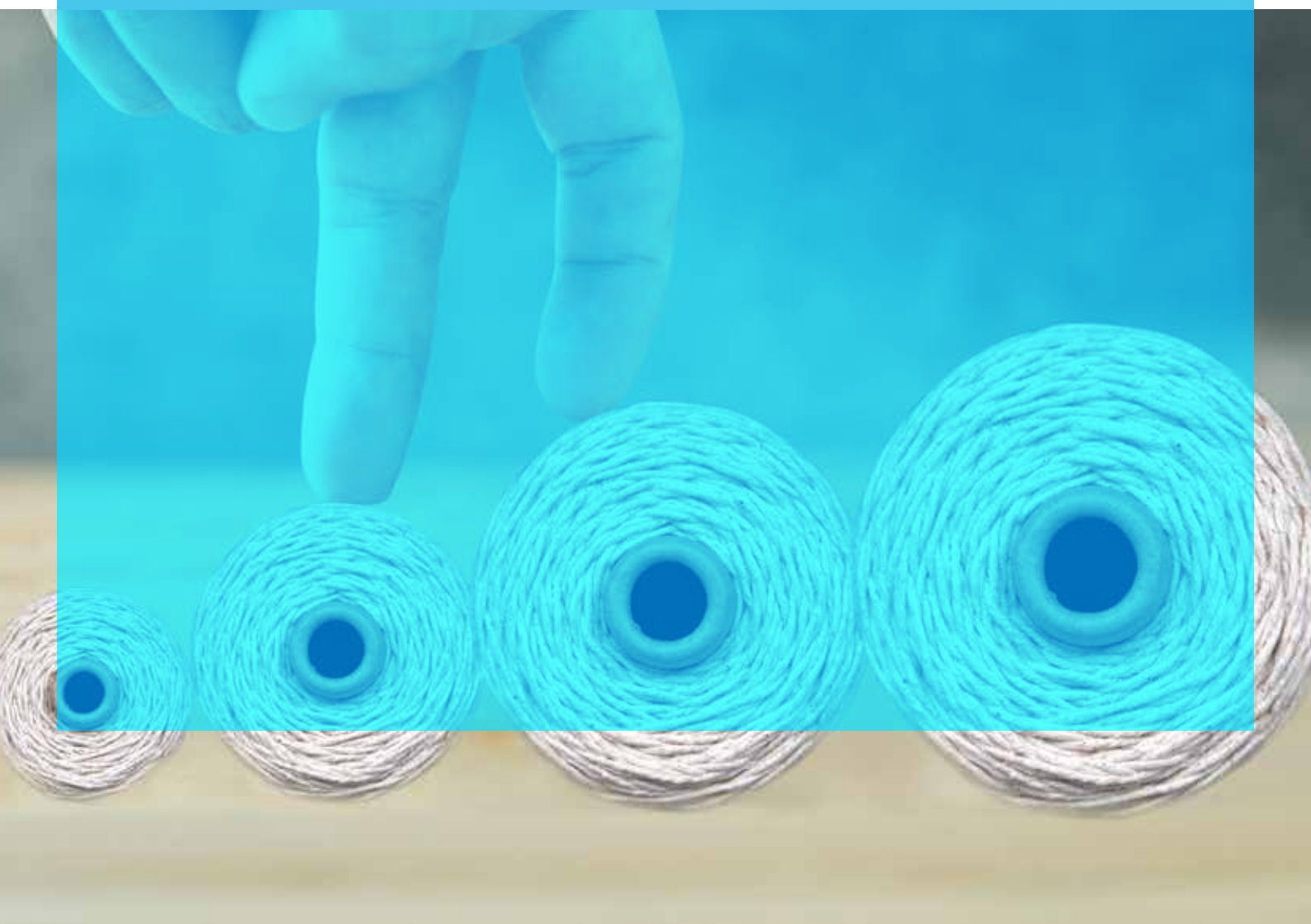


**A 'TTS -TIMES (TEXTILE INDUSTRY MANUFACTURING EXCELLENCE STANDARDS)'
APPROACH TO IMPLEMENTING SUCCESSFUL OUTCOMES
ACROSS THE TEXTILE INDUSTRY VALUE-CHAIN**





WHO WE ARE

Texcoms Worldwide group is a conglomerate of Textile Solutions Businesses involved in sourcing and supplying of high quality used textile machines, Yarn and fabric sourcing, and transferring know-how to operate textile mills efficiently.

The only Business Group having the capability to supply machines, market final product and supply know-how.



MISSION

We assist building agile textile companies that can spot opportunities early on, solve problems, leading to sustainable and profitable growth



VALUE PROPOSITION

Assisting textile mills to increase revenue and reduce costs



WHAT WE DO

We are a team of qualified Textile Technologists, Engineers, Financial and marketing experts from the textile industry helping polyester fibre industry, spinning, knitting, weaving and processing plants to be successful.

We help our clients to see the true potential of their operations and ensure that they realize it. Our experts are there with our clients at every step of their organization's journey through implementation. We help our clients identify new opportunities and pursue them successfully.

We are unique in many ways, from our international and highly educated and experienced staff to approach problem-solving. The textile industry is cyclical and structural changes can affect the industry, we early spot the trends and help our clients to navigate through tough times, sustain and excel.



TTS SERVICE BASKET

Texcoms Textile Solutions by virtue of its end-to-end competence in identifying and resolving problems in textile mills offers a bouquet of key services that create profitable ecosystems for the businesses. These include:

- Capacity building through benchmarking and rehabilitation
- Turnkey Project Management solutions
- Management Contract
- Plant re-location services
- Strategy and feasibility modelling
- Investor Services
- i Smart Textile Factory Solutions

CAPACITY BUILDING THROUGH BENCHMARKING & REHABILITATION

- Production and Quality improvement, Wastage reduction
- Power saving
- Improving efficiency and utilization
- Fine tuning of machines for optimum performance, intervening and upgrading machinery condition
- Skills development through training
- Systems improvement

TURNKEY PROJECT MANAGEMENT SOLUTIONS

- Helping client to choose right location of the plant.
- Planning and designing of the plant
- Product and technology selection
- Layout preparation
- Architectural and Structural planning
- BOT – Building, Operating and Transferring the complete plant

MANAGEMENT CONTRACT

- Managing the complete operations of the plant on behalf of the client
- Assuring targeted production and quality
- Assuring targeted manufacturing cost.
- Training, development and transfer of know-how to the client's staff
- Improving the productivity of the plant year on year.

PLANT RE-LOCATION SERVICES

- Helping the client to choose the right location for the plant
- Architectural and structural designing of the plant
- Building the complete plant
- Dismantling and shifting the plant
- Erecting and commissioning the plant
- Operating and transferring the plant



STRATEGY DEVELOPMENT AND FEASIBILITY ANALYSIS

- Market Mapping and Analysis
- Industry Mapping and Analysis
- Product Mapping and Analysis
- Developing the winning formula
- Techno-Economic viability studies

INVESTOR SERVICES

- Identifying potential Seller and Buyer for Textile Mills
- Conducting complete due diligence – Technical, financial and legal
- Assisting Seller and Buyer to arrive at the right value
- Facilitating negotiations and resolution of Issues
- Facilitating transfer of assets



i-SMART TEXTILE FACTORY SOLUTIONS

- Digitized production monitoring
- Automated Data collection
- Automated Data processing
- Automated Report Generation and display
- Mobile Alerts for anomalies

Intelligence gathered from automated data collection in manufacturing leads to a faster and more flexible production process, greater efficiency of material, and reduction of complexity and downtime.

i-SMART FACTORY WILL ENSURE :

- Alignment of the existing data monitoring devices in to the i-SMART schema
- Conversion of other machinery into i-SMART terminals
- Bringing all the data to a common platform
- Integration with the existing ERP
- Delegation of non-critical / routine decisions to customized Algorithms
- Auto-generation of routine monitoring
- Digital display (Dashboard) of KPIs
- Descriptive and predictive analytics

SUCCESSFUL OUTCOMES – THROUGH 'TIMES' APPROACH

USDA, ERS predicts that the real global GDP growth YOY will average at a sluggish 2.81 % till 2030. The total textile fiber demand growth for the same period is projected to be averaging 3% and expected to reach 140 million tons in 2030 (PCI Wood Mackenzie, 2019). The fiber demand growth will more or less average global real GDP growth. The sluggish economic growth predicted will be anything but challenging due to current developments in mounting trade barriers among leading economies and meagre growth in per capita disposable income. The decade following the financial crisis experienced volatile commodity and raw material prices undermining the profitability of the textile industry.

Textile industry has been worst affected partly due to macro-economic conditions and partly due to poor or less than standard productivity levels achieved at mill level. The extensive study of textile mills points to the fact that top 20% mills fared very well even during tumultuous times and the major differentiating factor was operational excellence. The lesson learnt is that mills could fare well if productivity, quality and cost levels are maintained at best industry standards level.

TTS has developed textile industry manufacturing excellence standards called "TIMES" to guide the industry participants. **TTS-TIMES** is the barometer that opens up management's perception on the performance of their respective factories. On comparison, if the performance is below par, then attention is drawn to call for immediate action.

One of the key strengths of TTS is Capacity building and benchmarking of the existing industries. We have created this excellence standards in all segments - Spinning, Weaving, Knitting, Processing, Finishing and Polyester manufacturing chain.

TTS employs time-tested methodology - **"Discover - Diagnose - Design - Deliver"** to analyze, design and implement a program through in-depth intervention and address each and every gap with a team of highly skilled technocrats from each field. The targets vs current levels are clearly defined and TTS goes the full length and breadth in ensuring that the targets are achieved.

Sustainability is ensured through handholding and knowledge-transfer to the factory's technical team. At the end of the program the factory's team of experts become fully capable of taking over and leading from there on.

**TTS-TIMES IS UPDATED ON CONTINUOUS BASIS,
AS WE EXCEL OUR SET STANDARDS.**

DISCOVER

- Analyze and understand value gap through TTS TIMES Approach
- Organize thorough assessment of operations in discussion with client
- Ensure services offered narrow the gap

DIAGNOSE

- Confirm through extensive analysis that value gap exists
- Discuss with client about scope for improvement
- Estimate financial impact, costs and benefits and share the findings with client

DESIGN

- Discuss range of possible solutions with client
- Assist client in choosing the most effective solution
- Agree on the outcomes, measurements, costs, benefits, and return on investment

DELIVER

- Joint evaluation of the outcomes
- Submitting final report and ensuring that it matches client's expectations
- Follow-up after completion of project if achieved outcome is sustained

LEADERSHIP TEAM



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1100 YEARS OF TEXTILE EXPERTISE

Cumulative Team Expertise of over 1100 Years in Textile Industry

TESTIMONIALS

PT. Indiratex Spindo, Indonesia

We have engaged Texcoms Textile Solutions to improve performance of our factory. Texcoms Textile Solution team has done an excellent job of improving productivity, quality and also helped improve skill level of employees at all level. The methodology employed and Texcoms Textile Solutions professional approach to dealing with the customer is really commendable. We are so satisfied with their service, we have repeatedly awarded them the contract to work us. We highly recommend them for similar activities.

Thanking you,

ONGKOWIJOYO ONGGOWARSITO

President Director

PT. Indiratex Spindo, Indonesia



PT. Kewalram, Indonesia

This is to confirm that we mandated Texcoms Textile Solutions (part of Texcoms Worldwide group) to identify suitable textile assets in India / Indonesia for potential acquisition. Recently we concluded a successful acquisition of a spinning mill in Indonesia. They assisted with range of activities such as deal identification, due diligence, asset valuation and deal closure formalities among other key activities. During our interaction with Texcoms, we found their team members to be competent and professional in their approach and possessed the required domain expertise to execute the project they undertake.

Authorised Signatory

Mr. M.R Krishnamurthy

President Director



PT. Lotus Indah Textile Industries, Indonesia

This assignment consisted of activities involving dismantling the machinery & equipment in Rungkut premise, move the equipment to the new plant premises in Nganjuk, unload, erect, commission and stabilize the plant - better than or equal to the original condition. We are happy to record here that TTS did a good job of the above, in a conducive and cordial way with our team, without any safety, environmental or PR issues and without any insurance claims. We recommend TTS to anyone in Textile field, for similar relocation activities.

Warmest Regards,

G. Venkatesh President Director



The Federal Democratic Republic of Ethiopia Ethiopian Textile Industry Development Institute Ethiopia

Texcoms Textile Solutions (TTS) have been outstanding in achieving targets set, enhanced, Spinning productivity by 15% Weaving productivity 10%, reduced weaving waste percent by 5%, Processing productivity by 10% and transferred knowledge to sustain the improvements. In this context we would like to take this opportunity to confirm that TTS will be our preferred service provider for such activities.

Sincerely Yours,

Yitbarek Tilahun

Ginning & Spinning Technology Directorate Director





* **T**extile **I**ndustry **M**anufacturing **E**xcellence **S**tandards.

SPINNING INDUSTRY PERFORMANCE RANGE AND HEALTHY LEVEL

NE 30S CH (COMBED HOSIERY) COTTON YARN	PARAMETERS	INDUSTRY AVG. - RANGE				HEALTHY LEVEL
	UTILISATION %	80	85	90	95	96 - 98.5
	PRODN. EFFICIENCY %	88	89	90	91	93 - 94
	GPS (GRAMS / SPINDLE)	190	200	210	220	230 - 240
	IPI (IMPERFECTIONS / YARN KM)	80	70	60	50	30 - 40
	YARN REALISATION %	67	68	69	70	72 - 74
	POWER – UKG (UNITS / KG)	4.4	4.3	4.2	4	3.8 - 3.6
	MEN / 1000 SPLS / DAY (50000 SPLS – AUTO DOFFING AUTOCONER – ROUND MAGAZINE TECHNOLOGY)		13	12	11	9 - 10
	MANUFACTURING COST - \$ / KG (WAGES, SALARY, POWER, STORES OVERHEADS, INTEREST & DEPRECIATION)	0.96	0.93	0.90	0.87	0.75 - 0.8

WEAVING INDUSTRY KEY PERFORMANCE RANGE AND HEALTHY LEVEL

200 CMS COTTON SHEET (UPTO 72 PPI - PICKS / INCH)	PARAMETERS	INDUSTRY AVG. - RANGE				HEALTHY LEVEL
	WARPING BREAKS / MILLION MTRS	1.5	1.25	1	0.5	0.5 - 1
	WARPING EFFY. %	45	50	55	60	60 - 65
	SIZE PICK-UP	2	4	6	8	8 - 10
	SIZING EFFY. %	40	50	55	60	60 - 65
	ELONGATION LOSS %	18	15	12	10	8 - 10
	STRENGTH GAIN %	15	16	18	20	20 - 25
	UTILISATION	75	80	85	90	90 - 95
	PRODN. EFFY %	80	85	90	95	96 - 98.5
	WARP BREAKS / CMPX (CENTI-MILLION PICKS)	10	7	5	3.5	2.5 - 3
	WEFT BREAKS / CMPX (CENTI-MILLION PICKS)	8	6	4	2.5	2 - 2.5
	A GRADE FABRIC (WOVEN) %	94	95	96	97	97 - 98
	POWER – UNITS / MTR	1	0.9	0.85	0.65	0.6 - 0.65
	MEN / LOOM DAY	2	1.5	1.2	1	0.8 - 1
	MANUFACTURING COST - \$ / MTR (WARPING COST, SIZING COST, WAGES, SALARY, POWER, STORES OVERHEADS, INTEREST & DEPRECIATION)	0.21	0.19	0.17	0.16	0.15 - 0.16



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OE SPINNING INDUSTRY PERFORMANCE RANGE AND HEALTHY LEVEL

20s Ne OE YARN - 100% COTTON, FULLY - AUTOMATED FACTORY (Upto packing)	PARAMETERS	INDUSTRY AVG. - RANGE				HEALTHY LEVEL
	UTILISATION %	80	85	90	95	96 - 98.5
	PRODN. EFFICIENCY %	88	89	90	91	95 - 98
	KGS / ROTOR / DAY	6.5	7	8	8.5	9
	IPI (IMPERFECTIONS / YARN KM)	80	70	60	50	30 - 40
	YARN REALISATION %	78	80	85	88	93
	POWER – UKG (UNITS / KG)	2.5	2.2	2	1.8	1.5
	MEN / 1000 ROTORS (FULL AUTOMATION)	15	13	12	11	10
	MANUFACTURING COST - \$ / KG (WAGES, SALARY, POWER, STORES OVERHEADS, INTEREST & DEPRECIATION)	-	-	0.55	0.5	0.45

10s Ne OE YARN - 100% RE-CYCLED COTTON WASTE MIXTURE (Manual Operations)	PARAMETERS	INDUSTRY AVG. - RANGE				HEALTHY LEVEL
	UTILISATION %	82	90	92	94	95 - 97
	PRODUCTION EFFICIENCY%	80	92	96	97	98 - 100
	PRODUCTION IN KG / ROTOR / DAY	9.00	9.5	10	10.5	> 11
	IPI	130	110	90	80	60 BELOW
	YARN REALISATION %	63	65	67	69	72 - 76
	POWER - UNITS / KG	1.3	1.25	1.2	1.15	< 1.1
	MEN EMPLOYED / 1000 ROTORS / DAY - MANUAL PIECING	90	80	72	65	55
	MANUFACTURING COST - \$ / KG (WAGES, SALARY, POWER, STORES OVERHEADS, INTEREST & DEPRECIATION)	-	-	0.4	0.35	0.3



* Textile Industry Manufacturing Excellence Standards.

POLYESTER - INDUSTRY PERFORMANCE AND HEALTHY LEVEL

PARAMETERS	INDUSTRY AVG.	HEALTHY LEVEL
CP CAPACITY UTILISATION %	80	110
CP EFFICIENCY. %	98	99.5
CHIP PRODUCTION. %	99	99.5
FIRST QUALITY %	90	99.5
WASTE %	0.3	0.1
POWER – KWH / TON	100	80
TOTAL MEN / TON	0.2	0.13

POY - (PARTIALLY ORIENTED YARN) INDUSTRY PERFORMANCE AND HEALTHY LEVEL

PARAMETERS	INDUSTRY AVG.	HEALTHY LEVEL
POY EFFY. %	98	99.5
WASTE %	1.5	0.5
FIRST QUALITY %	90	98
FULL PACKAGE %	80	90
POY USTER %	< 1.5	< 1
POY SPIN FINISH CONSUMPTION (KGS / TON)	5	4
TOTAL MEN / TON	1.5	1

DTY - (DRAW TEXTURED YARN) INDUSTRY PERFORMANCE AND HEALTHY LEVEL

PARAMETERS	INDUSTRY AVG.	HEALTHY LEVEL
DTY EFFY. %	90	96.5
FIRST QUALITY %	90	96
M QUALITY %	90	98
EQUAL WEIGHT %	75	85
0 BF%	50	85
TOTAL MEN / M/C	10	7
CONING OIL CONSUMPTION – KGS / TON	22	<20
AVG. YARN PKG. (KGS)	4.5	5.5



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FDY - (FULLY DRAWN YARN) INDUSTRY PERFORMANCE AND HEALTHY LEVEL

PARAMETERS	INDUSTRY AVG.	HEALTHY LEVEL
FDY EFFY. %	96	99.5
WASTE %	2	1
FIRST QUALITY %	90	98
FDY FULL PACKAGE %	80	88
FDY SPIN FINISH CONSUMPTION (KGS/TON)	12	<10
POWER – KWH / END / DAY	30	20
MEN / TON	1.5	1
M QUALITY %	90	98
WARPING SPEED - MPM	300	350
WARP STOPS / MILLION MTRS	1	<0.5
BARRE FREE FABRIC	A3	A4

PSF - (POLYESTER STAPLE FIBRE) INDUSTRY PERFORMANCE AND HEALTHY LEVEL

PARAMETERS	INDUSTRY AVG.	HEALTHY LEVEL
SPG. EFFY. %	95	99.5
FIBRE LINE EFFY. %	75	85
WASTE %	2	0.85
FIRST QUALITY %	90	98
PSF SPIN FINISH CONSUMPTION (KGS / TON)	4	3.5
POWER – KWH / TON	200	150
STEAM CONSUMPTION (KGS / TON)	850	750
TOTAL MEN / TON	1.5	1



* Textile Industry Manufacturing Excellence Standards.

KNITTED FABRIC INDUSTRY PERFORMANCE RANGE AND HEALTHY LEVEL

140 GSM (GRAMS / SQ. MTR) SINGLE JERSEY FABRIC	PARAMETERS	INDUSTRY AVG. - RANGE				HEALTHY LEVEL
	UTILISATION %	60	70	75	80	80 - 85
	PRODN. EFFICIENCY %	75	80	85	90	90 - 92
	A GRADE FABRIC (KNITTED) %	90	92	95	97	97 - 98
	REJECTION %	2	1.5	1.0	0.6	0.3 - 0.5
	HOLES / 20 KGS	10	8	5	3	2 - 3
	NEEDLES CONSUMED / 100 KGS	4	3	2	1	0.5 - 1
	POWER- UNITS / KG	1	0.8	0.7	0.5	0.4 - 0.5
	MEN / M/C SHIFT	2	1	0.8	0.5	0.3 - 0.5
	MANUFACTURING COST \$ / MTR (WAGES, SALARY, POWER, STORES OVERHEADS, INTEREST & DEPRECIATION)	0.17	0.14	0.11	0.085	0.07 - 0.085

PROCESSED FABRIC / YARN INDUSTRY PERFORMANCE RANGE AND HEALTHY LEVEL

COTTON KNITTED DYED / WOVEN DYED (CONTINUOUS DYEING) FABRIC	PARAMETERS	INDUSTRY AVG. - RANGE				HEALTHY LEVEL
	CAPACITY UTILISATION %	75	80	85	90	90 - 95
	MACHINE UTILISATION %	60	70	75	80	80 - 85
	EFFICIENCY %	75	80	85	90	90 - 95
	RFT (B-B & B-L) %	90	92	95	97	97 - 98
	REJECTION %	5	3	2	1	0.5 - 1
	WATER (LTRS / KG)	80	70	60	50	40 - 45
	STEAM (KG / KG OF FABRIC)	10	9	8	7	5 - 6
	POWER – UNITS / KG	1	0.8	0.7	0.5	0.4 - 0.5
	MEN / M/C SHIFT	2	1	0.8	0.5	0.3 - 0.4
	UTILITY (COAL / GAS) - \$ / KG	0.15	0.12	0.11	0.1	0.1 - 0.09
	REPAIRS & MAINTENANCE - \$ / KG	0.08	0.07	0.06	0.05	0.04 - 0.05
	DYES & CHEMICALS COST - \$ / KG	0.7	0.6	0.5	0.4	0.3 - 0.4
	MANUFACTURING COST - \$ / MTR (DYES & CHEMICALS COST, WAGES, SALARY, POWER, STORES OVERHEADS, INTEREST & DEPRECIATION)	1.3	1.2	1.1	1	0.8 - 1



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EBIDTA LEVELS

(Earnings before Interest, Depreciation, Tax and Amortisation)

INDUSTRY	AVG. RANGE	HEALTHY RANGE	EXCELLENT RANGE
SPINNING	8 – 12%	13 – 15%	16 – 21%
WEAVING	10 – 12%	13 – 15%	16 – 20%
PROCESSING	15 – 20%	21 – 25%	26 – 30%
POLY - CHIPS	3 – 4%	4.1 – 5%	5.1 – 7%
POLY- FIBRE	5 – 6%	9 – 10%	10.1 – 12%
POY	5 – 6%	9 – 10%	10.1 – 12%
DTY	6 – 8%	10 – 12%	12.1 – 15%
FDY	6 – 8%	10 – 12%	12.1 – 15%

EBIDTA LEVELS
(EBIDTA - Earnings before Interest, Depreciation, Tax and Amortisation)

INDUSTRY	AVG. RANGE	HEALTHY RANGE	EXCELLENT RANGE
SPINNING	8 – 12%	13 – 15%	16 – 21%
WEAVING	10 – 12%	13 – 15%	16 – 20%
PROCESSING	15 – 20%	21 – 25%	26 – 30%
POLY - CHIPS	3 – 4%	4.1 – 5%	5.1 – 7%
POLY - FIBRE	5 – 6%	9 – 10%	10.1 – 12%
POY	5 – 6%	9 – 10%	10.1 – 12%
DTY	6 – 8%	10 – 12%	12.1 – 15%
FDY	6 – 8%	10 – 12%	12.1 – 15%



PREPARING TEXTILE INDUSTRY FOR THE FUTURE



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