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TEXTILE INDUSTRY 5.O - A STEP AHEAD OF CUSTOMIZATION & MASS PRODUCTION IN INDIA

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ABSTRACT

Modern technology has become an essential component of daily life for humans. As a result, the outcomes fall under the category of business technology advancement, which drives company advancement across all industries. Maintaining the industry and market requires undergoing technical advancement. This essay focuses on the technological evolution of the textile industry since its inception. The Tirupur District of Tamil Nadu State in India, which provides less than 1% of the global textile industry, has yielded about 60 statistics. Primarily focuses on the connection between technical advancement and the aspirations people have for prospective industrial advancement. It is crucial to consider all factors while upgrading since the nation's consistent economic growth is necessary to go in the right direction of the economic growth route. Upgrading the technology in the earlier stage will give us the opportunity to capture the market share. Early adopters are always playing various roles in market share in the competitive world.

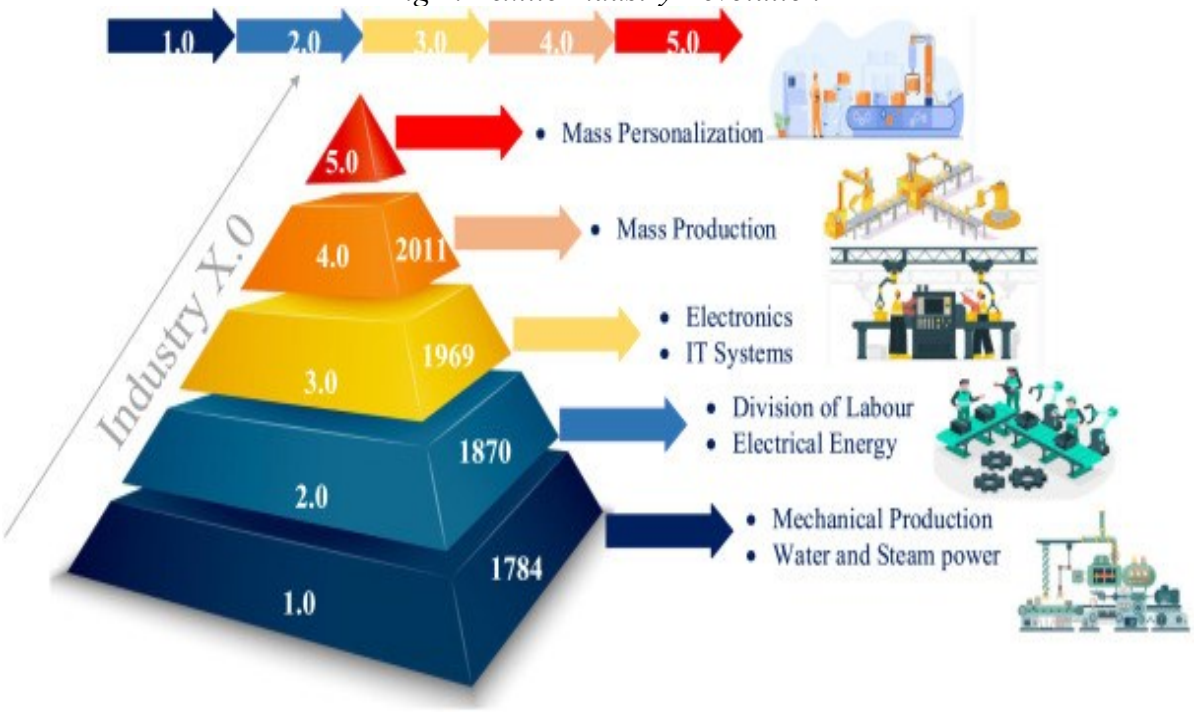
Keywords: Evolution of Industry, Economic growth, Sustainability, Global Textile Industry, Technological growth etc.

1. INTRODUCTION

The requirement of items to lead a human existence drives every industry in our globe. Clothing is one of those items. Yes, the textile sector is one of the main trade goods in the world, and it is also the main driver of sustained economic growth in a select number of nations. The demand in the textile sector is usually blooming high since it is integrated into human daily existence as food and shelter. Due to the great demand for this business, it goes through an industrial revolution that balances supply and demand throughout the whole

population. The whole production and manufacturing process undergoes significant modifications with each textile industry revolution, supporting the establishment of industries that serve as the foundation for entire empires. India is one of the nations that produce textiles, thanks to its distinctive natural resources and a large pool of trained textile workers. Therefore, this essay suggests developing a theoretical textile production model that takes resilience, sustainability, and the human person into account.

Fig 1: Textile Industry Revolution



Source: Secondary Data: https://ars.els-cdn.com/content/image/1-s2.0-S2452414X21000558-gr1_lrg.jpg

1.1 INDUSTRIAL REVOLUTION IN TEXTILE INDUSTRY

As every industry involves in the upgradation from the existing, the textile industry is also involved in the transformation of the industry. Industry transformation starts from Industry 1.O and now we are traveling towards Industry 5.O.

1.1.1 Industry 1.O

The First Industrial Revolution was transitioning to a new manufacturing method that used water and streams in 1760. In terms of producing a large volume of things, it was quite helpful. The modification significantly improved transportation. The use of machines that are practical begins with the use of steam and coal, and this concept quickly spreads throughout

the world. The development of new technologies in the textile industry begins with easier and quicker production.

This revolution concentrates more on the Production of large volumes as their major goal.

1.1.2 Industry 2.O

Around 1840, the second industrial revolution got going. This was known as "The Technological Revolution" by historians, and it mostly occurred in Britain, Germany, and America. At this time, new technical systems were developed, most notably enhanced electrical technology, which allowed for machines with even higher productivity and more complexity.

The reduction of waste during production is the focus of this revolution.

1.1.3 Industry 3.O

Near 1970, the Third Industrial Revolution began. The development of information technology has accelerated over this time period. This enables businesspeople to exchange documents at a faster rate and in more comfort. The business is taken to the next level with connection and internet access. The actual Industrial Revolution begins at this point when automation and internet connectivity allow for a complete process improvement. The proportion of human engagement is cut in half. However, in order to operate and program the machinery, humans are still needed.

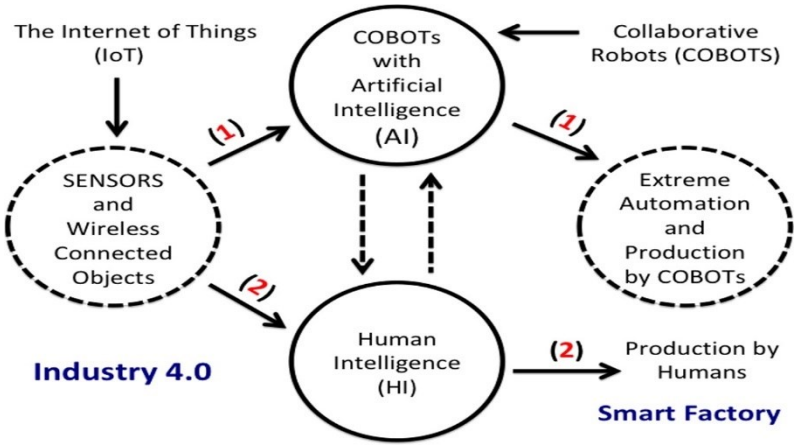
More emphasis is being placed on speed and efficient resource use in this revolution.

1.1.4 Industry 4.O

Around the year 2000, the fourth industrial revolution begins, ushering in an era of smart applications in every piece of machinery used in both business and day-to-day life. Smart applications that let users create images on computers that can then be printed on fabric as designs greatly minimize labor requirements and save time.

The market of this period focuses on accuracy, IoT, and designs as the key pillars of the corporate empire, which has accelerated the global spread of smart applications.

Fig 2: Industry 4.O Highlights



Source: https://www.liebertpub.com/doi/full/10.1089/omi.2017.0194

1.1.5 INDUSTRY 5.O

"CUSTOMERS CAN CUSTOMIZE" may sound more contemporary, yet this is the truth in business today. Consumers now seek products that are distinct from others' offerings in order to feel better about their possessions. This era is characterized by customization and digital correctness in all spheres. The primary driving forces of this modern period are the complete computerization of business and the customization of every single product. The emerging nations are at the beginning of this period, while the developed nations are in the middle of it. This might have an impact on every aspect of business, and for a period, it might even change how sustainably emerging nations' economies expand. Uniqueness is now a booming concept among consumers in order to get the attention of everyone.

OBJECTIVE OF THE STUDY

1. To analyze the expectations from textile industrialists in Upcoming Industry 5.O Revolution in India
2. To analyze the relating factors the in the textile industry on Technological upgradation in India

3. RESEARCH METHODOLOGY

Both primary and secondary data have been used to fuel the output towards the objectives.

3.1 Primary Data

Around 60 businesses from the textile industry in Tirupur, Tamilnadu state, India were given primary data. The result has been driven using SPSS software to meet the specified goals. Analysis of correlation and percentages is done to determine the results for the goal.

3.2 Secondary Data

Secondary data was gathered from publications, journals, and websites in order to understand the outline of the Textile Industry Revolution and its adoption tactics.

4. ANALYSIS & INTERPRETATION

Table: 1 Showing the Respondent's Demographic Profile

Particulars		Frequency	Percentage
No. of Years Experience in the Textile Industry	Less than 5 years	18	30
	5 years – 10 years	27	45
	Above 10 years	15	25
Type of Business	Manufacturer	12	20
	Trader	27	45
	Both	21	35
Business category Belongs to	Exporter	8	30
	Domestic	22	36.6
	Both	20	33.33
Educational Qualifications	HSC	18	30
	Bachelor's Degree	27	45
	Master's Degree	15	25
Current adoption of their Textiles	Textile 1.O	6	10
	Textile 2.O	22	36.66
	Textile 3.O	32	53.33

Source: Primary data

Interpretation

From the table no. 1, it is inferred that 45% of the respondents belong to the experience category of 5 years to 10 years, 45% of the respondents belong to the trading sector, 36.6 % of the respondents belong to the domestic business, 45% of the respondent's educational qualification belongs to Bachelor's degree and Majority 53.33% of the respondents are currently utilizing the Textile 3.O technology.

Table 2: Expectations in Textile 5.O Technology

Particulars	Frequency	Rank
User Friendly Designing techniques for all levels of workers	45	3
Reduction in Labour	38	4
Reduction in Wastage of Raw materials	49	2
Mass Production	52	1
Supply chain Technological improvement	38	4
Other Expectation	21	5

Source: Primary data

Interpretation

From the table 2, the Textile organization preferred Mass production as their expectation from technology 5.O followed by reduction in wastage of raw material, user friendly designing technique for all level of workers, reduction in labor, supply chain technological improvement and other expectations.

IMPACT OF TECHNOLOGICAL INNOVATIONS

Correlation Analysis

1. Relationship between the factors influencing the Technological upgradation in the textile industry
2. In order to find out the relationship between technical skills, reduction of human involvement, mass production, and reduction in wastage of raw materials, correlation analysis has been carried out.

Table 3: Correlation analysis

	Technical Skills	Reduction of Human Involvement	Mass Production	Reduction in Wastage
Technical Skills	1			
Reduction of Human Involvement	.647**	1		
Mass Production	.609**	.653**	1	
Reduction in Wastage	.603**	.752**	.672**	1

***. Correlation is significant at the 0.01 level (2-tailed)*

Source: Primary Data

Interpretation

From the table No.3, among the variables, the relationship between the reduction of human involvement and reduction in wastage has a high correlation followed by mass production and reduction in wastage. It could also be inferred that there is a positive correlation between all the variables.

5. CONCLUSION

Every firm needs a large market share price to maintain their operations in order to meet the enormous demand on the global market. Because of this, the businesses believed that technology for mass manufacturing and user-friendly methods may aid in their further growth and increased interest. The first objective of every firm is to increase profits and market share. However, the allocation of manufacturing time and its waste of raw materials might occasionally bring them to ruin. They choose user-friendly technology that is also mass-produced in order to overcome these obstacles and help them maintain stability. The technology used in supply chains is crucial for obtaining raw materials and getting them to their destination. Therefore, by focusing on these aspects, the advancement of technology can be received more favorably.

Consumers are always the backstop of the entire commercial field. The Industrial Revolution should be upgraded in accordance with their needs in order to succeed, but it also takes industrialists into account in order to go along the route of economic prosperity. The company must constantly treat the customer as its owner and fulfill all their requirements without fail. Following consumer trends will always be a stabilizing element for finances and market share, but as soon as the entire process is transformed, production and market share rise on their own. Because customers desire it, a sustainable economy is essential. Early adoption of the industry's revolution can balance both, preventing competition and a small market share.

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