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A STUDY ON TECHNOLOGY AUTOMATION AND LABOR SKILL DEVELOPMENT IN TEXTILE INDUSTRY AT SALEM

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ABSTRACT

The technology automation is the key factor for the success and growth of any industry, because the technological changes are the powerful drivers of economic growth. In the present era the work is not only carried out manually, but also done with automation technology. Many textile industries are keeping themselves updated with modern technologies, according to the current needs of the people. The Study deals with technology automation and labour skill development in Textile industry in Salem region. The tools applied in the minor study t-test, f- test and multiple regression. The dimensions were compared with gender, family type and resident. It was found that no significance between gender, family type with technology automation. Place of residence was found to have a significance difference. The study reveals the importance of technology automation and the skill development of labor in Salem region. At present, the skill development training programmes are very much essential for the laborers due to the technology automation. It helps to improve not only labourer performance, but also to improve the industrial growth.

Key words: Technology, automation, labour, skill, development.

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1. INTRODUCTION

Indian textile industry is the second biggest industry on the planet after China and it is confident and autonomous and has more prominent broadening and adaptability. According to Apparel Export Promotion Council (AEPC), it represents around 4% of GDP close to horticulture area, 14% of the mechanical creation, and 17% of the nation's all out fare profit. About 27% of the

nation's unfamiliar trade comes from the material fares. Moreover, the area utilizes almost 35mn representatives in both provincial and metropolitan zones. In the worldwide market, India is the biggest exporter of yarn and has 25% offer on the planet cotton yarn trade market other than adding to over 12% of the world's creation of material strands and yarn. While the Europe keeps on being the India's significant fare market with 22% offer in materials and 43% in clothing, the US is the single biggest purchaser of Indian materials and attire with 10% and 32.6% offer individually. Different nations in the fare list incorporate the China, UAE, Saudi Arabia, Canada, Bangladesh, Turkey, and Japan.

Shaft age has 23% offer on the planet axle limit, incorporating handlooms with 61% on the planet loom age. Piece of clothing/Apparel industry holds 12% of the nation's all out fare and it is one of the biggest unfamiliar income donors.

1.1. Automation in Textile

In many areas of material assembling measure, computerization is one of the significant key to quality improvement and cost intensity (Kalaiarasi & Gopinath, 2020). Early modernization and specialized improvements in materials focused on the mechanization of material machines and their cycles.

Presently mechanization has occurred in all the cycles including material assembling for example cotton picking, ginning, turning, weaving, and handling and even somewhat in article of clothing making, bringing about tremendous increases in profitability and productivity. Below is a list of some of the most significant developments in the material industry (Priyadharshini et al.,2020).

1.2. Advantages of Automation in Textile

Automation plays an extremely more significant function than just to lessen the work costs. Our most significant perspective is to decrease the manual bobbin dealing with and their connected issues. Along these lines we assist you with getting a higher item quality. Computerized Handling Systems (AHS) offers you the accompanying preferences:

- A complete automation measure from creation to delivery.
- A complete decrease of manual bobbin taking care of, which brings about a considerable direct improvement of item quality.
- A secure and proficient material/item move through the reduced framework setup.
- A enormous decrease of work costs which results into brisk return of venture (under 3 years restitution time).
- Better room usage because of brilliant and space saving computerization and dealing with frameworks

2. NEED OF THE STUDY

In straightforward terms preparing and improvement alludes to granting of explicit aptitudes, capacities and information to a worker. Formal definition of preparing and advancement is it is any endeavor to improve current and future representative execution by expanding a workers capacity to perform through learning, normally by changing the representatives' demeanor or expanding his& her abilities and information. The requirement for preparing and improvement is dictated by the representative's execution inadequacy (Gopinath, 2019d).

3. SCOPE OF THE STUDY

India's textile sector is currently important economically, particularly in the developing world. Textile industry is a labor intensive industry and in the recent years there has been technological up gradation and automation in this sector. It is observed that the majority of the laborers working in textile sector does not have enough knowledge about the modern technologies.

4. OBJECTIVES OF THE STUDY

- To study the effect of computerization innovation in expanding the profitability with high calibre in textile industry.
- To identify the aptitude necessities for the workers to oversee innovation robotized in material businesses.
- To assess the impacts of aptitude improvement programs on execution pointers of textile industry.

5. HYPOTHESIS OF THE STUDY

H0: There is no significance difference of Gender and Technology Automation in Textile industry

H1: There is a significant association between of Marital Status and labor skill development

H0: There is a no significant association between place of residence and technology automation in textile industry

H1: There is a significant association between place of residence and technology automation and labor skill development in textile industry.

6. LIMITATION OF THE STUDY

- Employees are not ready to react effectively.
- The rightness of data gave by the respondent in the individual information couldn't be set up.
- The respondent do not have some information about this arrangement is another impediment.

7. RESEARCH METHODOLODY

Investigation technique is a way to deal with productively tackle the assessment issue. It very well may be seen as an investigation of concentrating how investigation is done intelligently. In it, we study the different advancements that are usually grasped by an expert in the examination of his inquiry question close to the reasoning behind them. It is basic for the researcher to know the investigation techniques strategies just as the framework.

7.1. Method of Sampling

Systematic random sampling was used for the study distributing the questionnaire to only the employee works of textile industries in the Salem region. Data was collected from the 216 respondents.

7.2. Method of Data Collection

The Method of Data Collection was distributing questionnaire towards a selected population of respondents belonging to working community of textile industries in Salem region. Primary Data collection method has been used for data collection (Gopinath & Chitra, 2020).

8. REVIEW

The International Labour Organization (ILO) says skill development is of key importance in stimulating a sustainable development process and can make a contribution to facilitating the transition from an informal to a formal economy. It is also essential to address the opportunities and challenges to meet new demands of changing economies and new technologies in the context of globalization (Gopinath et al.,2020). Skills development can help create a "virtuous circle" in which the quality and relevance of women's and men's education and training fuels the innovation, investment, technological change, enterprise development, economic diversification, and competitiveness that economies require to create more jobs (Gopinath & Kalpana, 2020).

India's eleventh biggest state is Tamil Nadu regarding territory and third biggest benefactor of GDP just as the seventh generally crowded (Porter and Niels). Statistics 2005 states that' economy to a great extent relies upon businesses and horticulture. Tamil Nadu has the most noteworthy number of business ventures (10.56%) and stands second in all out work (9.97%) in India (Marimuthu, 2012). Two-third of India's material article of clothing sends out happen from Erode and in excess of a portion of India's knitwear are traded out of Tirupur (Tex- City or Loom-City of India). Coimbatore, Erode and Karur together raise $1000mn consistently in unfamiliar trade. Coimbatore is contributing enormous number of material organizations' foundations and running very well with most noteworthy fares on both homegrown and global market (Marimuthu and Jessica, 2012).

8.1. Socio-Demographic Profile of The Respondents

Table 1

Sl. No	Particulars		Frequency	Percent
01	Gender	Male	123	56.9
		Female	93	43.1
02.	Age	25 years to 35 years	54	25.0
		35 Years to 45 years	56	25.9
		45 years to 55 years	74	34.3
		Above 55 years	32	14.8
03.	Residential Status	Urban	100	46.3
		Semi – urban	48	22.2
		Rural	68	31.5
04.	Education Qualifications	Degree	41	19.0
		HSC	104	48.1
		B.E \Diploma	71	32.9
05.	Monthly Income	Below Rs.15000	93	43.1
		Rs.20000 to 30000	56	25.9
		30000 to 45000	39	18.1
		Above 45000	28	13.0
06.	Department	Purchase department	43	19.9
		Production department	104	48.1
		Finance department	35	16.2
		Quality department	34	15.7
07.	Marital status	Married	172	79.6
		Unmarried	44	20.4
08.	Members of family	Nuclear	144	66.7
		Joint	72	33.3
09.	Experience	Below 5 years	63	29.2
		5 to 10 years	50	23.1
		10 to 15 years	78	36.1
		Above 15 years	25	11.6

10	Designation	Process engineer	46	21.3
		worker	93	43.1
		Sales Manager	34	15.7
		Quality control supervisor	43	19.9

The Socio – demographic profile of the respondents from the table suggests that almost more than 50% are male respondents. The age category shows a maximum of respondents belong to 35 to 45 years old. Majority of the respondents belong to Urban locality. When educational qualification is taken almost 48 % of the respondents hold HSC. But the monthly income 43 % of the respondents earn below Rs. 15000. Majority of the respondents belong to production department and respondents nearly 80% are married. Nearly 66 % of the respondents are from nuclear family type. Regarding work experience mostly the respondents were found to be 10 to 15 years of experience. The respondent's majority were found to be Process engineer workers.

8.2. Mean and Standard Deviation of Technology Automation and Labour Skill Development for Gender

Table 2

Sl. No		**Male**		**Female**		**t ratio**
		Mean	**S.D**	**Mean**	**S.D**	
		N=123		**N=93**		
01	Organization Automation of Technology	40.23	5.86	37.84	8.29	**5.61 0.00<0.05 Significant**
02	Personal Impacts Automation Technology	27.94	4.86	28.67	5.97	.912 NS

The mean and Standard deviation was found and T test was applied. It was found that the variable Organization Automation of Technology had No Significant difference with respect to Gender. The Personal Impacts Automation technology also had No Significant difference to Gender. As Overall the gender did not have a significant difference compared with the two variables Organization Automation and Personal Impact Automation Technology

8.3. Mean and Standard Deviation of Technology Automation and Labour Skill Development for Marital status

Table 3

Sl. No		**Married**		**Unmarried**		**t ratio**
		Mean	**S.D**	**Mean**	**S.D**	
		N=172		**N=44**		
01	Organization Automation of Technology	38.55	7.25	41.75	6.25	**2.63 0.00<0.05 Significant**
02	Personal Impacts Automation Technology	28.40	5.26	27.52	5.75	.924 NS

The mean and Standard deviation of Technology Automation and Labour Skill development with Marital Status was taken for analysis. T test was applied. It was found that the variable Organization Automation of Technology had No Significant difference with respect to Marital Status. The Personal Impacts Automation technology also had No Significant difference to Marital Status. As Overall the Marital Status did not have a significant difference

compared with the two variables Organization Automation and Personal Impact Automation Technology with Technology Automation and Labour Skill

8.4. Mean and Standard Deviation of Technology Automation and Labour Skill Development for Residence

Table 4

Sl. No		Urban		Semi – urban		Rural		f
		Mean	S.D	Mean	S.D	Mean	S.D	
		N=100		N=48		N=68		
1	Organization Automation of Technology	43.82	4.67	36.43	6.50	34.34	6.31	**63.06 0.00<0.01 Significant**
2	Personal Impacts Automation Technology	29.50	5.51	27.18	4.52	27.14	5.35	**5.63 0.00<0.05 Significant**

The mean and Standard deviation of Technology Automation and Labour Skill development with family type was taken for analysis. F test was applied and it was found that the variable Organization Automation of Technology had Significant difference with respect to Resident. The Personal Impacts Automation technology also had Significant difference to Resident. As Overall, the Resident had a significant difference compared with the two variables Organization Automation and Personal Impact Automation Technology with Technology Automation and Labour Skill.

9. MAJOR FINDINGS AND DISCUSSION FROM THE MINOR STUDY

- Majority of the respondents belong to Urban locality. When educational qualification is taken almost 48 % of the respondents hold HSC. But the monthly income 43 % of the respondents earn below Rs. 15000. Majority of the respondents belong to production department and respondents nearly 80% are married. Nearly 66 % of the respondents are from nuclear family type. Regarding work experience mostly the respondents were found to be having 10 to 15 years of experience. The respondent's majority were found to be Process engineer workers (Gopinath, 2019a).
- It was found that the variable Organization Automation of Technology had No Significant difference with respect to Gender. The Personal Impacts Automation technology also had No Significant difference to Gender (Gopinath, 2019b). As Overall the gender did not have a significant difference compared with the two variables Organization Automation and Personal Impact Automation Technology.
- It was found that the variable Organization Automation of Technology had No Significant difference with respect to Marital Status. The Personal Impacts Automation technology also had No Significant difference to Marital Status. As Overall the Marital Status did not have a significant difference compared with the two variables Organization Automation and Personal Impact Automation Technology with Technology Automation and Labour Skill
- F test was applied and it was found that the variable Organization Automation of Technology had Significant difference with respect to Resident. The Personal Impacts Automation technology also had Significant difference to Resident. As Overall, the Resident had a significant difference compared with the two variables Organization

Automation and Personal Impact Automation Technology with Technology Automation and Labour Skill.

10. SUGGESTIONS FROM THE STUDY

Automating matters virtually frees up time, so we can do loads extra with much less staff. When you streamline and automate those low-level financial approaches, you upload to the company's overall performance, and allow the tech do the difficult work. Having an effective website, and plugging away with the digital marketing helps in bringing down the effort of the workers and helps to give labor skills effective support in their work.

11. CONCLUSION

Automation is not new. From the start, human beings have continuously advanced new and superior tools and technology to produce greater monetary output with less human attempt. Some of those advances have been transformational, with vast impact throughout many sectors of the financial system (Saminathan et al.,2020).

Think of innovations just like the steam engine, strength, and facts technologies. Regardless of its scope, automation fundamentally exists to replacement work sports undertaken by way of human labor with paintings accomplished by way of machines, with the goal of growing quality and quantity of output at a reduced unit fee (Gopinath, 2019c). This potential to growth people' effective potential has historically enabled people to transition out of physically difficult, mundane, or menial hard work, and in so doing, raised the usual of dwelling (Gopinath, 2020). Therefore, the hard work skill combined with technology automation might also trade the way human beings stay on this international.

REFERENCES

[1] Cascio, R., B.J. Mariadoss and N. Mouri, The impact of management commitment alignment on salespersons adoption of sales force automation technologies: An empirical investigation Industrial Marketing Management, 2010. 39(7): p. 1088-1096

[2] Gopinath, R. (2019a). Job Involvement Influence to Knowledge Management – A Study. *International Journal of Research*, *8*(5), 1461-1466.

[3] Gopinath, R. (2019b). Organisational Commitment and Job Satisfaction Relationship–A Study in private Cement Factories. *Suraj Punj Journal for Multidisciplinary Research,* 9(5), 444-447

[4] Gopinath, R. (2019c). Relationship between Knowledge Management and Human Resource Development – A Study on Telecommunication Industry, *Suraj Punj Journal for Multidisciplinary Research,* 9(5), 477-480.

[5] Gopinath, R. (2019d). Impact of Organizational Commitment on Knowledge Management Practices, *International Journal of Research and Analytical Reviews,* 6(2), 701-703.

[6] Gopinath, R., & Chitra, A. (2020). Emotional Intelligence and Job Satisfaction of Employees' at Sago Companies in Salem District: Relationship Study. *Adalya Journal*, 9(6), 203-217.

[7] Gopinath, R., & Kalpana. R. (2020). Confirmator Factor Analysis in Self-Actualization, *GEDRAG & Organisatie,* 33(3), 748-757.

[8] Gopinath, R., Chitra, A., & Kalpana, R. (2020). Emotional Intelligence and Knowledge Management- A Relationship Study, *International Journal of Advanced Research in Engineering and Technology*, 11(11), 2363-2372.

[9] Kalaiarasi, K., & Gopinath, R. (2020). Fuzzy Inventory EOQ Optimization Mathematical Model, *International Journal of Electrical Engineering and Technology*, 11(8), 169-174.

[10] Priyadharshini, D., Gopinath, R., & Poornapriya, T.S. (2020), "A fuzzy MCDM approach for measuring the business impact of employee selection", *International Journal of Management*, 11(7), 1769-1775.

[11] Raj, M. and R. Seamans, AI, Labor, Productivity, and the Need for Firm-Level Data, in Economics of Artificial Intelligence. 2018, University of Chicago Press.

[12] Saminathan, R., Hemalatha, P., & Gopinath, R. (2020). A Study on Performance Management in BMTC with special reference to Divisions, International Journal of Advanced Research in Engineering and Technology,11(10), 1966-1973.

[13] www. http://www.diva-portal.org/.