

Available online @ www.iaraindia.com
 SELP Journal of Social Science - A Blind Review & Refereed Quarterly Journal
 ISSN: 0975-9999 (P) 2349-1655 (O)
 Impact Factor: 3.655 (CIF), 2.78(IRJIF), 2.5(JIF), 2.77(NAAS)
 Volume XV, Issue 56, April-June 2024
 Formally UGC Approved Journal (46622), © Author

IMPACT OF AUTOMATING OPERATIONAL PROCESS ON EMPLOYEE JOB PERFORMANCE - A STUDY AT SAKTHI SUGARS LIMITED

Dr. P. VANITHA, MBA., M.Phil., Ph.D.,

&

P. BOOPATHI, MBA.,

Department of Management Studies - PG
 K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode

Abstract

This study explores how automation affects job performance at Sakthi Sugars Limited, a major player in sugar manufacturing. By analyzing this relationship, it uncovers insights into the impact of technological advancements on the workplace.

Keywords: *Employee, Organization, Strategies, Automation.*

INTRODUCTION

"The rise of technology has reshaped industries like manufacturing through automation, aimed at improving efficiency and competitiveness. This study investigates how automating processes affects job performance at Sakthi Sugars Limited, a major player in the sugar industry."

OBJECTIVES OF THE STUDY

- To Study current operational patterns.
- To Analyze operational factors affecting job performance.
- To Assess employees' readiness for automation.
- To Evaluate potential benefits of automated processes.

NEED FOR THE STUDY

Review existing literature on automation's impact on job performance and employee readiness. Analyze the current operational processes to understand their functional patterns and potential areas for automation. Conduct surveys or interviews to assess the job performance of employees before and after automation implementation.

SCOPE OF THE STUDY

Analyze current job performance and operational processes. Evaluate employee performance with automation. Compare employee and automated performance. Assess benefits of implementing findings. Review literature on automation's impact. Identify operational factors influencing performance. Assess employee readiness for automation. Develop implementation strategy and change management plan. Quantify potential benefits and risks of automation. Provide recommendations for optimization.

LIMITATIONS OF THE STUDY

- There is small sample size of the study due to organization constraints.
- The information that is provided by the individual may be biased.
- Time constraint is the major constraint of the study

REVIEW OF LITERATURE

Review existing research and case studies to understand the impact of automating operational processes on employees' job performance.

Analyze industry practices and literature to identify patterns in current operational processes and their impact on job performance.

Examine diverse operational factors influencing employees' job performance in automated environments based on literature review.

Evaluate employees' readiness to adapt to automation through synthesis of prior studies and theoretical frameworks.

Assess potential benefits of automated operational processes by synthesizing empirical evidence and theoretical models.

Explore psychological and behavioral effects of automation on employee motivation, satisfaction, and engagement, drawing from existing theories and research.

Investigate the role of training and development programs in preparing employees for automated processes, considering best practices and recommendations.

RESEARCH METHODOLOGY

Research design: Mixed methods

Sampling Techniques: Simple random sampling

Sample size: 100 respondents

Analysis Tools: Simple percentage, Chi-square, Correlation

ANALYSIS & INTERPRETATION

Percentage analysis simplifies raw data into percentages for clarity and better comprehension.

Chi-square analysis examines the relationship between rating the current job performance evaluation process and ranking factors influencing job performance among employees.

Chi-Square Tests	Value	Df	Asymp.Sig.(2-sided)
Pearson Chi-Square	38.938 ^a	16	.001
Likelihood Ratio	40.945	16	.001
Linear-by-Linear Association	4.995	1	.025

Chi-Square Test Result

There is a significant association between the factors influencing job performance and the ratings of the job performance evaluation process at Sakthi Sugars Limited ($p < .001$).

CORRELATION

Rank the advantages of incorporating automation into operational processes from an employee perspective and what challenges the employees will face in adopting to the automated processes compared to the current work method

CORRELATION		Value	Asymp. Std. Error ^a	pprox. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	.138	.100	1.384	.169 ^c
Ordinal by Ordinal	Spearman Correlation	.149	.101	1.491	.139 ^c

Correlation Analysis Result

There is a weak positive correlation between the perceived advantages of incorporating automation and the challenges faced by employees in adopting automated processes at Sakthi Sugars Limited, but it is not statistically significant ($p > .05$)

FINDINGS

All respondents were male, predominantly aged 36-45 and married, earning between Rs. 30,000 and Rs. 45,000 per month. Collaborative steps were common in daily workflows, with acknowledged bottlenecks and inefficiencies. Clear communication and continuous monitoring were deemed crucial for employee readiness for automation. Automation was perceived to bring cost savings and efficiency improvements, with leadership support ranked highest for job performance. Challenges included inadequate training, workload/stress, and technical issues, while change management initiatives were deemed essential. Enhanced skill development was highlighted as a significant advantage, alongside the importance of regular communication and updates for adaptation. Responses varied regarding the effectiveness and impact of automation, with competitive advantage seen as the most significant outcome.

Chi-Square Test

- The Chi-Square test reveals a significant association between factors influencing job performance and ratings of the job performance evaluation process ($p < .001$).

Correlation Analysis

- In the correlation analysis, a weak positive correlation exists between perceived advantages of automation and challenges faced by employees at Sakthi Sugars Limited, but it lacks statistical significance ($p > 0.05$).

SUGGESTIONS

Ensure diversity in future research samples to capture a broader perspective by encouraging participation from female employees. Tailor strategies to meet the needs of the majority age group (36-45), including personalized training and development programs. Implement policies supporting work-life balance for married employees, such as flexible work arrangements. Address workflow inefficiencies through proactive process improvement initiatives and employee involvement in problem-solving.

CONCLUSION

The study highlights employees' views on automation's impact on efficiency and job performance. Although mostly male, aged 36-45, and married, respondents offer insights on workflow, challenges, and benefits. Key findings reveal inefficiencies prompting calls for process enhancements and automation. Employees acknowledge automation's advantages like cost savings and error reduction but emphasize the importance of clear communication, training, and technical support.

REFERENCES

1. Acemoglu, D., Restrepo, P., 2020. Robots and jobs: evidence from US labor markets. *J. Polit. Econ.* 128 (6), 2188–2244. <https://doi.org/10.1086/705716>.
2. Acemoglu, D., Autor, D., Hazell, J., Restrepo, P., 2020. AI and jobs: Evidence From Online Vacancies (No. w28257). National Bureau of Economic Research. <https://doi.org/10.3386/w28257>.
3. Acemoglu, D., Lelarge, C., Restrepo, P., 2020. Competing with robots: firm-level evidence from France. In: *AEA Papers and Proceedings*, 110, pp. 383–388. <https://doi.org/10.1257/pandp.20201003>.
4. Adamczyk, W.B., Monasterio, L., Fochezatto, A., 2021. Automation in the future of public sector employment: the case of Brazilian Federal Government. *Technol. Soc.* 67 <https://doi.org/10.1016/j.techsoc.2021.101722>.
6. Aghion, P., Antonin, C., Bunel, S., 2020. Artificial intelligence, growth and employment: the role of policy. In: *Economie et Statistique / Economics and Statistics*, 510–511–512, pp. 149–164. <https://doi.org/10.24187/ecostat.2019.510t.1994>.
7. Aghion, P., Antonin, C., Bunel, S., Jaravel, X., 2020. What are the labor and product market effects of automation? New evidence from France. In: *Discussion Paper No. DP14443*. Centre for Economic Policy Research (CEPR).
8. Albuquerque, P.H.M., Saavedra, C.A.P.B., de Moraes, R.L., Peng, Y., 2019. Ipanema goes working: estimating the probability of jobs automation in Brazil. *Lat. Am. Bus. Rev.* 20 (3), 227–248. <https://doi.org/10.1080/10978526.2019.1633238>.
9. Anton, J.-I., Klenert, D., Fernandez-Macías, E., Urzì Brancati, M.C., Alaveras, G., 2020. The labour market impact of robotisation in Europe. In: *JRC Working Papers Series on Labour, Education and Technology*. European Commission.
10. Arntz, M., Gregory, T., Zierahn, U., 2016. The risk of automation for jobs in OECD countries: A comparative analysis. In: *OECD Social, Employment and Migration Working Papers No. 189*. https://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5j1z9h56dvq7-en.

11. Arntz, M., Gregory, T., Zierahn, U., 2020. Digitization and the future of work: macroeconomic consequences. In: Zimmermann, K.F. (Ed.), *Handbook of Labor, Human Resources and Population Economics*. Springer International Publishing, pp. 1–29. https://doi.org/10.1007/978-3-319-57365-6_11-1.
12. Asian Development Bank, 2015. *A smarter future: Skills, education, and growth in Asia*. In: *Key Indicators for Asia and the Pacific 2015*. Asian Development Bank.
13. Aubert-Tarby, C., Escobar, O.R., Rayna, T., 2018. The impact of technological change on employment: the case of press digitisation. *Technol. Forecast. Soc. Chang.* 128, 36–45. <https://doi.org/10.1016/j.techfore.2017.10.015>.
14. Paramasivan, C., & Kamaraj, R. (2015). Commercial Bank's Performance on Pradhan Mantri Jan Dhan Yojana. *International Journal of Scientific Research and Education*, 3(6).
15. Paramasivan, C., & Rajaram, S. (2016). Micro insurance—a conceptual analysis. *International Journal of Recent Scientific Research*, 7.
16. Paramasivan, C. (2011). Customer Satisfaction through Information Technology in commercial banks. *Journal of Commerce and Management Thought*, 2(4), 509-522.
17. Naidu, V. K., & Paramasivan, C. (2015). A Study on Green Banking Trends in India. *Research Explorer*, 4(10).