

A Study on Technology Adoption at RK Hollow Blocks

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ABSTRACT:

Technology adoption is a critical factor in the growth and efficiency of manufacturing industries, including the hollow block sector. This study explores the level of technology adoption at R.K. HOLLOW BLOCKS, a leading manufacturer in the construction materials industry. The primary objective of this research is to assess the current technological infrastructure, identify challenges in implementation, and provide recommendations for improving technology integration. The study employs both primary and secondary data collection methods. Primary data is gathered through surveys and interviews with employees and management, while secondary data includes company reports and industry research. The analysis highlights key areas where R.K. HOLLOW BLOCKS has implemented mechanized systems but still relies on semi-automated processes, indicating room for further technological advancements. Findings suggest that automation, digital monitoring, and employee training are essential for enhancing productivity and reducing operational costs. However, challenges such as high investment costs, employee resistance to change, and technical skill gaps pose barriers to technology adoption. Based on these findings, the study recommends investment in automated production lines, IoT-based monitoring systems, and structured training programs to facilitate smooth technological transition.

INTRODUCTION:

In the 21st-century business environment, technology stands as a pillar of transformation, reshaping how organizations operate, compete, and deliver value. Across sectors, technology adoption is not merely an option—it is a strategic necessity. Industries that once relied heavily on manual processes are now transitioning toward automation, digital integration, and data-driven decision-making to enhance productivity, quality, and customer satisfaction. One such sector where technological transformation is increasingly being observed is the construction materials industry, particularly in the manufacturing of hollow blocks. Concrete hollow blocks are essential components in modern construction. These blocks are favoured for their strength, cost-effectiveness, ease of installation, and thermal insulation properties. Traditionally manufactured using labour-intensive processes, the production of hollow blocks is now undergoing a paradigm shift with the introduction of automated and semi-automated machinery, vibration and compaction technology, and digital quality control systems. These advancements are critical in reducing human error, enhancing consistency in block dimensions and strength, minimizing material wastage, and improving overall production efficiency.

OBJECTIVES:

To effectively gather employee suggestions for improving technology adoption and enhancing operational efficiency, organizations can implement a structured and inclusive approach that encourages open communication and active participation from all levels of staff. This process should begin by creating a supportive environment where employees feel valued and empowered to share their insights and experiences without fear of judgment or negative repercussions.

Regular feedback mechanisms such as surveys, suggestion boxes, town hall meetings, and digital platforms can be utilized to collect ideas and recommendations. Additionally, forming cross-functional focus groups or innovation committees can help in evaluating the feasibility and impact of proposed solutions. It is also important to clearly communicate the goals and expected outcomes of technology initiatives, ensuring that employees understand how their input contributes to the broader vision of the organization. Recognizing and rewarding valuable suggestions not only boosts morale but also fosters a culture of continuous improvement and innovation. By actively involving employees in the decision-making process, organizations can gain practical, ground-level perspectives that may otherwise be overlooked, ultimately leading to more effective and sustainable technology integration and streamlined operations.

RESEARCH METHODOLOGY:

To explore the employee's adoption towards technology adoption, this study adopted a descriptive research design. A structured questionnaire was developed to gather insights from employees across various departments and industries. The survey included both closed-ended and open-ended questions to understand participants' experiences, perceptions, and involvement in adoption towards the technology adoption. Convenience sampling was used to reach a diverse group of respondents, ensuring a mix of age, gender, and job roles. Data was collected through both online and offline modes to ensure broader participation. Quantitative data was analyzed using basic statistical tools to identify patterns and trends, while qualitative responses were reviewed to capture personal narratives and challenges faced by employee advocates. This mixed-method approach provided a well-rounded understanding of how employees are involved in adopting towards the introduction of technology in the company.

HYPOTHESIS:

To examine whether age influences employee support for the implementation of new software at R.K. Hollow Blocks, the following hypothesis was framed and tested using the ANOVA statistical tool:

- **Null Hypothesis (H₀):** There is no significant difference in the level of support for software implementation across different age groups of employees.
- **Alternative Hypothesis (H₁):** There is a significant difference in the level of support for software implementation across different age groups of employees.

This hypothesis helped in understanding whether employee demographics, specifically age, had any influence on their acceptance and support for adopting new technology in the organization. Based on the ANOVA test results, the decision to accept or reject the null hypothesis was made.

INTERPRETATION:

- The ANOVA shows no significant difference in support levels across age groups ($F(2,28) = 1.457, p = 0.251$)
- All age groups show moderate-to-high support (means between 3.68-4.00 on 5-point scale)
- The null hypothesis cannot be rejected - age does not significantly affect support for implementation

FINDINGS AND SUGGESTIONS:

FINDINGS:

The findings from the employee survey provide valuable insights into the organization's readiness for technology adoption. With a majority (83.3%) of respondents under the age of 25, the workforce is youthful and dynamic, likely to be adaptable to change but in need of structured training due to limited industry exposure. A balanced representation across departments—including production, inventory, finance, and sales—ensures that the feedback reflects diverse, cross-functional perspectives. Interestingly, nearly half of the employees (48.3%) have been with the organization for less than a year, highlighting recent hiring activity and a need for onboarding processes that emphasize technological integration. Encouragingly, 86.7% of employees are already aware of the upcoming software implementation, indicating successful initial communication efforts. However, over 55% of this awareness came through informal channels rather than official announcements, suggesting an opportunity to improve formal communication strategies. Employees have clear expectations from the new software, with improved efficiency (50%) and better inventory management (46.7%) cited as top benefits. This shows a strong belief in the software's operational value. Moreover, 80% of respondents expressed optimism about the long-term impact of the technology on their work, indicating a positive mindset. Around 60% of employees reported feeling comfortable with using new technology, showing strong potential for smooth adoption. Training preferences further support this, with most employees favouring interactive formats like in-person sessions (40%) and hands-on practice (26.7%) over passive methods. These findings highlight a generally receptive and capable workforce, ready to embrace technological change with the right support and communication strategies in place.

SUGGESTIONS:

Given that lack of training was the most commonly cited challenge, it is essential to offer structured training sessions tailored to the different user roles within the organization. While production staff may need training focused on task execution and reporting, finance and store managers might require modules on inventory tracking, analytics, and data accuracy. A phased training program with refresher sessions and performance assessments can enhance knowledge retention. Since employees preferred in-person and hands-on training formats, a blended approach should be adopted. This can include live instructor-led sessions, group workshops, on-the-job practice tasks, and interactive simulations. For continued access, supplementary materials such as video tutorials, FAQs, and user manuals should also be provided in both digital and printed formats. The study highlighted a heavy reliance on informal communication channels like peer conversations for updates on the software rollout. This may lead to misinformation or misalignment. It is therefore recommended to formalize communication through periodic newsletters, internal webinars, official notices, software dashboards, and management-led announcements. Creating a centralized communication hub will improve message clarity and organizational transparency. With nearly half of the employees expecting 24/7 support, the company must ensure a well-defined support system during and after the implementation phase. This may include establishing a dedicated helpdesk team, creating a ticketing system for issue escalation, and providing live chat or telephone support during working hours. Designating internal "tech champions" within each department can also help troubleshoot issues locally and reduce support burden. Although most employees believe the existing infrastructure is ready, some have pointed out critical upgrade needs. A department-wise IT audit should be conducted to identify outdated systems, inadequate internet connectivity, or insufficient device availability. Based on the audit, necessary hardware upgrades or internet improvements should be made to ensure the software operates smoothly across all workstations.

CONCLUSION:

The study conducted at R.K. Hollow Blocks highlights that while the organization is poised to embark on a significant digital transformation, the success of this transition heavily relies on how well the change is managed, communicated, and supported. With a predominantly young and recently hired workforce, there exists a strong foundation of adaptability and openness toward technology adoption. The high level of awareness and expectation among employees reflects their eagerness to embrace change and modernize workplace processes. However, the research also reveals critical areas that demand focused attention. Gaps in infrastructure readiness, training delivery, communication strategy, and technical support could become potential roadblocks if not addressed in a timely manner. While most employees express optimism and support, there remains a neutral and sceptical segment that needs to be engaged with empathy, clarity, and hands-on involvement. The implementation of new software is not just a technical upgrade but a strategic transformation that impacts every individual and operational function. Hence, it must be approached holistically—with strong leadership, inclusive planning, and continuous feedback. Investing in employee training, user-friendly design, responsive support, and clear communication will not only ensure a smoother transition but also enhance productivity, job satisfaction, and long-term organizational competitiveness. In conclusion, the findings of this study offer a comprehensive understanding of employee perceptions and readiness toward technology adoption. If the suggestions outlined are implemented effectively, R.K. Hollow Blocks will be wellpositioned to modernize its operations, strengthen internal processes, and secure a competitive advantage in the evolving construction materials industry.

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