

Challenges and issues faced by organization in using advanced technologies: An Empirical Study

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Abstract:

Organizations across industries are embracing sophisticated technologies more frequently to improve the operations, increase efficiency, and gain a competitive edge in today's quickly changing technology world. To fully profit from sophisticated technologies, however, organizations must negotiate a variety of problems and challenges that are brought on by the use. Costly acquisition and integration of cutting-edge technologies into current infrastructures is one of the main obstacles. Organizational budgets may be strained by the significant investments in hardware, software, and professional labor that these technologies frequently necessitate. Additionally, because of the speed at which technology is developing, businesses must consistently spend money on updates and upkeep to stay competitive. While sophisticated technologies provide organizations with enormous benefits, they also pose important problems that must be resolved. To overcome these obstacles, strategic planning, sufficient funding, efficient people management, strong cybersecurity defenses, and a considerate attitude to ethical issues are required. By proactively addressing these issues, businesses may use cutting-edge technology to spur creativity, productivity, and long-term success in the digital era.

Keywords: Integration, Scalability, Compatibility, Technology, Security.

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Introduction:

Organizations are increasingly turning to cutting-edge technologies to gain a competitive advantage, improve operational efficiency, and spur creativity in today's fast changing digital landscape. These emerging technologies, which range from robots and the Internet of Things to artificial intelligence and machine learning, have the power to completely alter company operations and whole industries. Organizations adopting and deploying modern technology, however, confront a variety of difficulties and problems in addition to the advantages. The speed at which technology is developing is one major issue that organizations face (Carmigniani et al. 2011).

Organizations find it more and harder to stay up to date on the newest innovations and identify which technologies are applicable and suited for the unique requirements as technology

continues to advance at an unparalleled rate. In addition, the adoption of cutting-edge technology frequently necessitates large investments in infrastructure, personnel acquisition, and research & development. The identification and adoption of technologies that support an organization's strategic objectives and provide a positive return on investment need careful navigating of this dynamic landscape. The incorporation of cutting-edge technologies into current processes and infrastructure is another significant hurdle. The deployment of emerging technologies may be complicated and slowed down using antiquated frameworks and legacy systems. Realizing the full potential of sophisticated technologies requires ensuring seamless data flow and interoperability between new and current systems. Additionally, organizations may encounter resistance from staff members who are used to conventional working practices and may be hesitant to adopt technology innovations (Parviainen et al. 2017).

Organizations also confront significant difficulties when implementing new technologies due to ethical considerations and privacy issues. Issues like data privacy, security breaches, algorithmic prejudice, and potential job displacement come to the fore because of the increasing pervasiveness of technologies like AI, machine learning, and big data analytics. To earn the trust of consumers, employees, and stakeholders, organizations must create sound governance structures, uphold ethical standards, and prioritize data protection (Crossler et al. 2013).

Additionally, the intricacy and connectivity of sophisticated technologies create new dangers and weaknesses. Organizations must deal with cybersecurity threats, preserve sensitive data, and fortify themselves against disruptions brought on by system errors or malicious assaults. It is crucial to ensure the dependability, robustness, and continuity of advanced technologies as they become a vital component of crucial business activities. While introducing new technologies into operations has many benefits, organizations must also deal with several difficulties and problems. Organizations encounter several challenges, including the rapid pace of technological change, integration challenges, ethical issues, and security problems (Choo, K. K. R. 2011).

Literature Review:

Organizational readiness is the condition of an organization's readiness to effectively adopt and integrate cutting-edge technologies into its operations. It covers a wide range of elements that might help or hurt the successful adoption and application of new technology. These elements consist of change management techniques, organizational culture, and leadership support. Driving technological change inside an organization requires strong leadership. The remainder of the organization benefits when top management supports the adoption of cutting-edge technologies. To energize workers and promote involvement, leaders can allot resources, establish objectives, and convey the significance of technology adoption. The support assists in overcoming resistance to change by highlighting the advantages and long-term outlook of the technological transition (Dhawan, S. 2020).

Change is more likely to be accepted in a culture that values creativity, education, and teamwork. A culture that is risk-averse, bureaucratic, or resistant to change, on the other hand, may be a hindrance to the adoption of technology. To ensure that cutting-edge technology is successfully implemented, organizations must cultivate a culture that values experimentation, rewards innovation, and promotes lifelong learning. Changes in procedures, roles, and workflows are frequently necessary to implement new technologies. Organizations can successfully navigate these changes with the aid of effective change management techniques (Nambisan et al. 2019).

The effective implementation of cutting-edge technologies within organizations depends heavily on employee skills and training. Organizations require knowledgeable personnel who can operate, manage, and debug sophisticated systems and tools considering the technology industry's rapid improvements. Employees can acquire the information and skills needed to fulfil these technological demands through upskilling and reskilling programmes (George et al. 2016).

Modern employees are better at using cutting-edge technologies since they have the most recent training and expertise. These tools can be used by them to automate monotonous jobs, streamline processes, and boost productivity. Training programmes help employees become more proficient in using new software, hardware, or systems, which allows them to produce better outcomes faster. In today's business environment, technological changes are continuous (Khan et al. 2012).

Companies that encourage a culture of lifelong learning and invest in staff development are better able to adjust to technological changes. Employees who participate in upskilling programmes develop a growth mentality, making it easier for them to accept change, take on new responsibilities, and maintain the agility in the face of developing technologies. Employee engagement and satisfaction are increased when there are possibilities for skill development and professional progress (Katal et al. 2013).

Training investments show a company's dedication to its employees' success, which encourages loyalty and lowers turnover. A company can also become more appealing to potential employees looking for chances for growth and development by providing thorough training programmes. Employees with a high level of skill are more likely to contribute to the organization's overall innovation efforts by developing new ideas and overcoming problems in fresh ways. To implement new technologies, businesses frequently spend a lot of money. The full potential of these investments might not be realized, though, if one lacks the requisite abilities and information. A higher return on investment is achieved by ensuring that employee training is used to leverage technological investments efficiently (Ferraro et al. 2015).

Compliance with laws, rules, and regulations established by governing authorities and organizations focused on a particular industry is referred to as regulatory and legal compliance. Due to the potential hazards and moral dilemmas raised by implementing cutting-edge

technologies like artificial intelligence, big data analytics, or cloud computing, compliance becomes even more crucial for organizations (Bandyopadhyay, D., & Sen, J. 2011).

Compliance with data protection rules is essential given the growing amount of personal data that businesses collect and process. As an illustration, the General Data Protection Regulation (GDPR) in the European Union places stringent restrictions on how businesses handle the personal data of EU citizens. Organizations are required to make sure they have the proper consent methods, data protection policies, and security measures in place to safeguard personal data and adhere to applicable legislation. This entails making sure that the business's goods, services, and technological advancements respect the rights of others to the intellectual property. It can also entail gaining intellectual property rights for the own inventions to stop unauthorised usage or infringement (Lopez-Perez et al. 2011).

Objectives of the study:

To find the challenges and issues faced by organization in using advanced technologies.

Research Methodology:

This study nature is empirical. 190 respondents were approached to give their view on the challenges and issues faced by organization in using advanced technologies. The data was analyzed through frequency distribution and data was presented with the help of pie charts.

Data Analysis and Interpretation:

Table 1 Hiring professional labor

Particulars	Agree	Disagree	Can't Say	Total
Respondents	167	15	8	190
% age	88.0	8.0	4.0	100

Table 1 represents the statement **hiring professional labor** and 88.0% respondents admit with this statement.

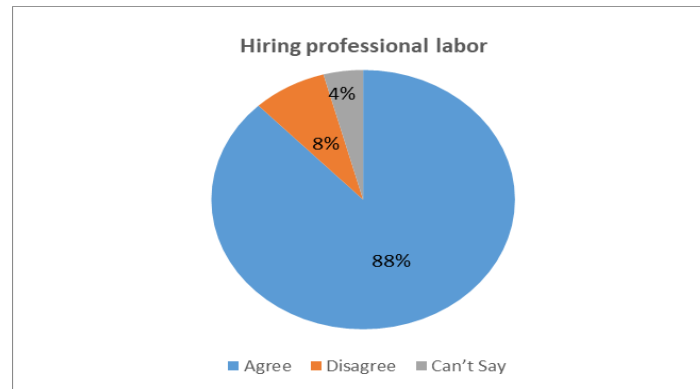


Figure 1 Hiring professional labor

Table 2 Incorporating high end hardware and software

Particulars	Agree	Disagree	Can't Say	Total
Respondents	173	11	6	190
% age	91.0	6.0	3.0	100

Table 2 represents the statement **incorporating high end hardware and software** and 91.0% respondents admit with this statement.

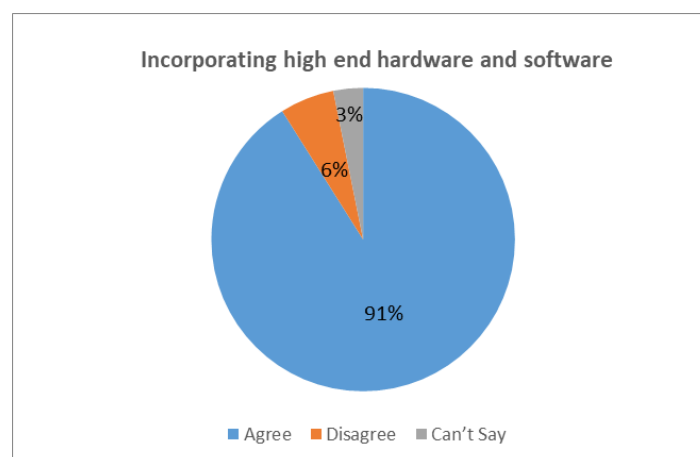


Figure 2 Incorporating high end hardware and software

Table 3 Continuous upgradation of technologies

Particulars	Agree	Disagree	Can't Say	Total
Respondents	163	18	9	190
% age	86.0	9.0	5.0	100

Table 3 represents the statement **continuous upgradation of technologies**, and 86.0% respondents admit with this statement.

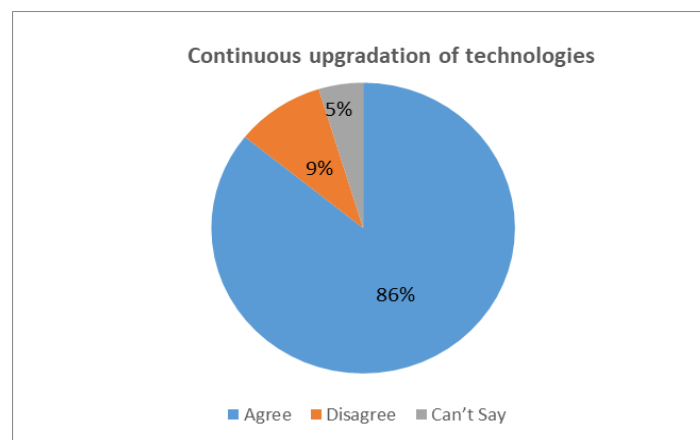


Figure 3 Continuous upgradation of technologies

Table 4 Regular training of employee's skills

Particulars	Agree	Disagree	Can't Say	Total
Respondents	177	9	4	190
% age	93.0	5.0	2.0	100

Table 4 represents the statement **regular training of employee's skills**, and 93.0% respondents admit with this statement.



Figure 4 Regular training of employee's skills

Table 5 Keeping compliance with data protection rules

Particulars	Agree	Disagree	Can't Say	Total
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Respondents	161	22	7	190
% age	85.0	11.0	4.0	100

able 5 represents the statement **keeping compliance with data protection rules** and 85.0% respondents admit with this statement. Considering all the responses of the statements, it was found that to a good percentage, the respondents have agreed that above mentioned statements are developed with the help of personality development programs.

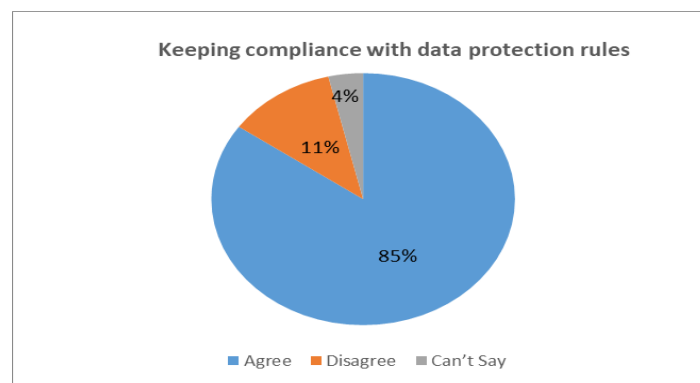


Figure 5 Keeping compliance with data protection rules

Conclusion:

In conclusion, incorporating and utilizing modern technologies presents several difficulties and problems for organizations today. These technologies come with a lot of challenges, despite the enormous potential for growth and innovation they hold. The speed of technology innovation is one of the biggest problems that businesses have. Organizations struggle to stay current with new advancements and successfully integrate them into the operations as technology continues to advance at an unparalleled rate. Additionally, it can be difficult to locate and keep experienced workers who can use sophisticated technologies well. There is a dearth of suitably trained people with the requisite qualifications and competence as the need for technology professionals rises. Organizations must contend with compatibility and integration problems. It may be difficult and expensive to integrate old systems and procedures that are currently in use with new technologies. To fully benefit from sophisticated technologies, it is crucial to provide seamless interoperability between various technologies and systems.

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