

## The Role of Internet of Things on Organisational Support Programmes to Enhance Work Outcome and Employees Behaviour

**Dr. Sonali Mishra, Dr. Bhavani Sushma Garlapati, Dr. Muthukumaran Kannan, Dr. Alok Dubey, Dr. Sheetal Mujoo, Dr. M. Ravichand**

<sup>1</sup>Associate Professor, Lloyd Law College, Lloyd group of Institutions Greater Noida (U.P.)  
[sonali.mishra@lloydlawcollege.edu.in](mailto:sonali.mishra@lloydlawcollege.edu.in)

<sup>2</sup>Assistant Professor, Department of English, K L deemed to be University, Hyderabad, Telangana  
[bhavanisushma2007@gmail.com](mailto:bhavanisushma2007@gmail.com)

<sup>3</sup>Associate Professor, Electronics and Instrumentation Engineering, Jaya Engineering College, Chennai, Tamilnadu  
[cdmkmk21@gmail.com](mailto:cdmkmk21@gmail.com)

<sup>4</sup>Associate professor, Department of Preventive Dental Sciences, College of Dentistry, Jazan University, Jazan, Saudi Arabia  
[adubey@jazanu.edu.sa](mailto:adubey@jazanu.edu.sa)  
<https://orcid.org/0000-0002-0161-7788>

<sup>5</sup>Assistant professor, Department of Maxillofacial Surgery and Diagnostic Sciences College of Dentistry, Jazan University, Jazan, Saudi Arabia  
[smujoo@jazanu.edu.sa](mailto:smujoo@jazanu.edu.sa)  
<https://orcid.org/0000-0001-7272-4671>

<sup>6</sup>Professor of English, Mohan Babu University, Erstwhile SreeVidyanikethan Engineering College  
[ravichandenglish@gmail.com](mailto:ravichandenglish@gmail.com)  
<http://orchid.org/0000-0002-9003-5359>

### Abstract

This paper explores the role of the Internet of Things (IoT) in enhancing work outcome and employee behavior through organizational support programs. The paper begins with an explanation of organizational support programs and their significance in enhancing employee performance and well-being. The impact of IoT technology on organizational support programs is then discussed, highlighting the various uses of IoT in organizations. The factors that influence work outcome and employee behavior are examined to understand the role of organizational support programs. The paper then focuses on the role of IoT in enhancing work outcome and employee behavior, discussing the various ways in which IoT can be utilized to improve employee performance. The challenges and limitations of using IoT for organizational support programs, including security and privacy concerns, compatibility issues, technical limitations, data overload, cost, reliance on technology, skill and training requirements, and legal and regulatory compliance. The potential benefits of using IoT for organizational support programs, while also acknowledging the importance of addressing the challenges and limitations associated with this technology. It provides insights into the effective use of IoT to enhance work outcome and employee behavior, which can help organizations improve their performance and meet their goals.

**Keywords:** *organizational support programs, Internet of Things (IoT), employee behavior, decision-making, security, privacy concerns, compatibility issues*

## **I. Introduction**

The Internet of Things (IoT) is a technology that enables the connectivity and communication of devices and systems through the internet. In recent years, IoT has gained immense popularity and has been implemented in various sectors, including healthcare, manufacturing, and transportation. However, its potential impact on the workplace remains largely unexplored. This paper seeks to examine the role of IoT on organisational support programmes to enhance work outcome and employee behaviour. Organisational support programmes are interventions that are designed to enhance the well-being and performance of employees. These programmes can take various forms, such as training, coaching, mentoring, and feedback. They are intended to provide employees with the necessary resources, tools, and support to improve their work outcomes and behaviour. Organisations invest heavily in such programmes, recognising that they can have a significant impact on the overall performance of the organisation. The integration of IoT in organisational support programmes can potentially enhance their effectiveness and impact. IoT technology can provide real-time data and feedback to employees, enabling them to monitor their progress and make necessary adjustments to their behaviour and work outcomes. IoT can also enable personalised interventions that are tailored to the specific needs and preferences of individual employees. For instance, IoT devices can monitor an employee's physiological and cognitive state and provide feedback or suggestions to improve their performance or well-being. The potential benefits of IoT in organisational support programmes extend beyond individual employees. IoT can also enable the collection and analysis of data on a larger scale, providing insights into the overall performance and behaviour of the organisation. IoT can enable the tracking of various organisational variables, such as energy consumption, environmental factors, and equipment usage. This data can be used to identify patterns and trends, enabling organisations to make data-driven decisions and improve their operations.

### **1.1 Explanation of organisational support programmes**

Organisational support programmes are interventions that are designed to enhance the well-being and performance of employees in the workplace. These programmes can take various forms, such as training, coaching, mentoring, and feedback. They are intended to provide employees with the necessary resources, tools, and support to improve their work outcomes and behaviour.

Organisations invest heavily in such programmes, recognising that they can have a significant impact on the overall performance of the organisation. For example, training programmes can enhance the knowledge and skills of employees, enabling them to perform their job more effectively. Coaching and mentoring programmes can provide employees with guidance and support to navigate challenging situations and achieve their career goals. Feedback programmes can provide employees with constructive feedback on their performance and behaviour, enabling them to make necessary improvements. Organisational support programmes can also have a positive impact on employee well-being. For instance, wellness programmes can provide employees with resources and support to manage stress, maintain a healthy lifestyle, and improve their mental health. Employee assistance programmes can provide employees with counselling and support for personal or work-related issues.

## **II. IoT and its Impact on Organisational Support Programmes**

The integration of Internet of Things (IoT) in organisational support programmes can potentially enhance their effectiveness and impact. IoT technology can provide real-time data and feedback to employees, enabling them to monitor their progress and make necessary adjustments to their behaviour and work outcomes. IoT can enable personalised interventions that are tailored to the specific needs and preferences of individual employees. For instance, IoT devices can monitor an employee's physiological and cognitive state and provide feedback or suggestions to improve their performance or well-being. This personalised approach can lead to better engagement and participation in support programmes. IoT can also enable the collection and analysis of data on a larger scale, providing insights into the overall performance and behaviour of the organisation. IoT can enable the tracking of various organisational variables, such as energy consumption, environmental factors, and equipment usage. This data can be used to identify patterns and trends, enabling organisations to make data-driven decisions and improve their operations. IoT can also enable remote access and communication, making it easier for employees to participate in support programmes. For instance, employees can access training modules or coaching sessions through their smartphones or laptops, eliminating the need for physical attendance. Remote access can also enable support programmes to reach a larger audience, including employees in remote locations. The implementation of IoT in organisational support programmes also presents challenges. One of the major challenges is the need for adequate infrastructure and resources to support the technology. IoT devices require a reliable internet connection and appropriate software and hardware to function effectively. Organisations need to invest in these resources to ensure the smooth implementation of IoT in their support programmes. IoT technology can provide real-time data and personalised interventions, enabling employees to improve their work outcomes and behaviour.

## 2.1 IoT technology and its uses in organisations

Internet of Things (IoT) technology has many potential uses in organisations across various industries. The integration of IoT in organisations can provide a range of benefits, including increased efficiency, improved data collection and analysis, and enhanced automation. Some of the common uses of IoT technology in organisations are as follows:

- *Asset tracking and management:* IoT technology can enable organisations to track and manage their assets, including equipment and inventory, in real-time. This can help to minimise loss and theft and optimise resource utilisation.
- *Predictive maintenance:* IoT technology can enable organisations to monitor the performance of their equipment and predict when maintenance or repairs will be required. This can help to minimise downtime and reduce maintenance costs.
- *Supply chain management:* IoT technology can enable organisations to track and monitor their supply chain, including shipments, inventory levels, and production processes. This can help to improve efficiency, reduce waste, and enhance customer satisfaction.
- *Environmental monitoring:* IoT technology can enable organisations to monitor and control various environmental factors, such as temperature, humidity, and air quality. This can help to improve safety and compliance with regulatory standards.
- *Energy management:* IoT technology can enable organisations to monitor and manage their energy consumption, reducing costs and improving sustainability.

- *Customer experience*: IoT technology can enable organisations to gather data on customer behaviour and preferences, enabling them to provide more personalised and targeted services.
- *Workplace safety*: IoT technology can enable organisations to monitor and identify potential safety hazards in the workplace, enabling them to take necessary precautions and prevent accidents.

The potential uses of IoT technology in organisations are vast and varied. The integration of IoT technology can provide organisations with valuable data and insights, enabling them to make data-driven decisions and improve their operations.

### **III. Work Outcome and Employee Behaviour**

The work outcomes and employee behaviour are critical aspects of organisational performance. Work outcomes refer to the results or outputs of employees' work, such as productivity, efficiency, and quality. Employee behaviour refers to the actions and attitudes of employees in the workplace, such as teamwork, communication, and engagement. Organisational support programmes are designed to improve both work outcomes and employee behaviour. Organisational support programmes can enhance work outcomes by providing employees with the necessary resources, skills, and support to perform their job effectively. For instance, training programmes can enhance employees' knowledge and skills, enabling them to complete tasks more efficiently and accurately. Coaching and mentoring programmes can provide employees with guidance and support to navigate complex situations and make decisions that align with the organisational goals. Feedback programmes can provide employees with constructive feedback on their performance, enabling them to identify areas for improvement and take necessary actions to improve their work outcomes. Leadership training programmes can help to develop leaders who promote positive communication and collaboration, leading to better teamwork and engagement. Employee recognition programmes can acknowledge and reinforce positive behaviours, promoting a culture of appreciation and motivation. The integration of IoT technology in organisational support programmes can enhance both work outcomes and employee behaviour. IoT technology can provide real-time data and feedback to employees, enabling them to monitor their progress and adjust their behaviour or work outcomes accordingly. For instance, IoT devices can provide employees with feedback on their energy usage or work efficiency, enabling them to take necessary actions to improve their performance. IoT technology can also enable personalised interventions that are tailored to individual employees, promoting engagement and participation in support programmes.

#### **3.1 Factors that influence work outcome and employee behaviour**

Several factors can influence work outcomes and employee behaviour in organisations. These factors can be categorised into individual, environmental, and organisational factors.

1. *Individual factors*: Individual factors refer to personal characteristics that influence work outcomes and employee behaviour, such as motivation, skills, and personality. Motivation is a key factor that drives employees to perform their best and achieve their goals. Skills and knowledge are also important, as they enable employees to complete tasks effectively and efficiently. Personality traits, such as conscientiousness and agreeableness, can influence employee behaviour, such as their level of cooperation and teamwork.

2. *Environmental factors*: Environmental factors refer to external factors that can influence work outcomes and employee behaviour, such as the physical environment, job design, and work schedule. The physical environment, such as noise and temperature, can affect employees' comfort and concentration levels, which can impact their work outcomes. Job design, such as the level of autonomy and feedback, can influence employee behaviour and motivation. Work schedule, such as flexible working hours, can impact employee satisfaction and work-life balance.
3. *Organisational factors*: Organisational factors refer to the characteristics of the organisation that can influence work outcomes and employee behaviour, such as culture, leadership, and policies. Organisational culture can influence employee attitudes and behaviour, such as their level of collaboration and commitment. Leadership style can also impact employee behaviour, such as their level of trust and communication. Policies, such as performance management and reward systems, can influence work outcomes and employee behaviour by providing incentives and feedback.

Organisations that are aware of these factors and take steps to address them can enhance their operations and achieve their goals. By providing support programmes that address these factors, organisations can help employees achieve their best performance and promote a positive work environment.

#### **IV. The Role of IoT on Enhancing Work Outcome and Employees Behaviour**

The table 1 provides a comprehensive overview of how IoT technology can enhance work outcomes and employee behaviour in organizations. The table highlights the various roles of IoT technology in enhancing work outcomes and employee behaviour, providing a framework for organizations to improve their performance and create a more positive work environment.

**Table 1: Roles of IoT in Organizational Support Programs**

Role of IoT Technology	Explanation	Example	Benefits
Real-time data	IoT technology provides real-time data on employee performance, enabling them to monitor their progress and adjust their behaviour or work outcomes accordingly.	Sensors in the workplace can monitor employee movement and activity levels, providing insights into their efficiency and productivity.	Enables employees to identify areas for improvement and receive immediate feedback on performance, leading to better work outcomes and behaviour.
<b>Personalised interventions</b>	IoT technology can enable personalised interventions that are tailored to individual employees, promoting engagement and participation in support programmes.	Wearable devices can provide personalised feedback on employee health and wellness.	Increases employee engagement and motivation, leading to better work outcomes and behaviour.
<b>Automation</b>	IoT technology can automate repetitive tasks, freeing up employees to focus on more meaningful work.	Smart systems can automatically adjust lighting and temperature in the workplace.	Reduces workload of employees and increases efficiency, leading to better work outcomes and behaviour.
<b>Enhanced collaboration</b>	IoT technology can improve collaboration among employees and teams, enabling them to work together more effectively.	Collaborative platforms can provide real-time communication and file sharing.	Improves communication, knowledge sharing, and teamwork, leading to better work outcomes and behaviour.

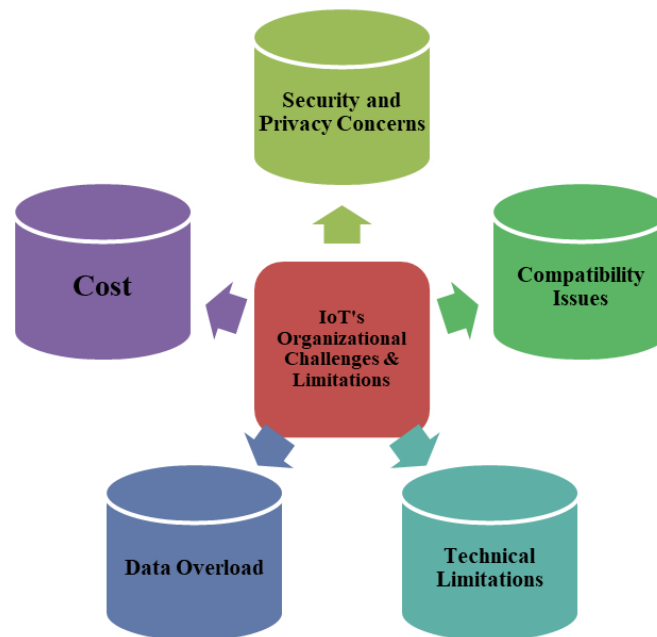
The first role of IoT technology is to provide real-time data that enables employees to monitor their performance and adjust their behaviour or work outcomes accordingly. By identifying areas for improvement and receiving immediate feedback, employees can take the necessary steps to improve their work outcomes and behaviour. The second role of IoT technology is to enable personalised interventions that are tailored to individual employees. Wearable devices can provide personalised feedback on employee health and wellness, motivating them to engage in support programs that can improve their work outcomes and behaviour.

The third role of IoT technology is to automate repetitive tasks, freeing up employee time to focus on more meaningful work. By reducing workload and increasing efficiency, employees can achieve better work outcomes and behaviour.

Lastly, IoT technology can enhance collaboration among employees and teams through collaborative platforms that provide real-time communication and file sharing. This improves communication, knowledge sharing, and teamwork, leading to better work outcomes and behaviour.

#### 4.1 Challenges and Limitations of Using IoT for Organisational Support Programmes

While IoT technology has the potential to greatly enhance organizational support programs and improve work outcomes and employee behavior, there are also several challenges and limitations to its implementation are as shown in figure 1.



**Figure 1: IoT's Organizational Challenges & Limitations**

- *Security and Privacy Concerns*: One of the biggest challenges with IoT is the potential for security and privacy breaches. IoT devices often collect and transmit sensitive data, making them vulnerable to cyber-attacks and data breaches. Organizations need to ensure that IoT devices are secure and that they have appropriate data protection policies in place.
- *Compatibility Issues*: IoT devices may not be compatible with existing technology infrastructure, which can create integration issues. This can be particularly challenging for organizations with legacy systems, as they may need to make significant investments in new technology to implement IoT devices.
- *Technical Limitations*: IoT devices may have technical limitations, such as battery life, processing power, and connectivity issues. These limitations can impact the functionality and effectiveness of organizational support programs.



- *Data Overload*: IoT devices generate large amounts of data, which can be overwhelming for organizations to manage and analyze. This can make it difficult to extract meaningful insights from the data, limiting the effectiveness of support programs.
- *Cost*: Implementing IoT devices can be costly, particularly for smaller organizations with limited resources. Organizations need to consider the upfront costs of purchasing and implementing IoT devices, as well as ongoing maintenance and support costs.

The benefits of IoT technology in organizational support programs are significant, it is important for organizations to carefully consider and address these challenges and limitations to ensure the successful implementation and adoption of IoT technology in the workplace.

## Conclusion

In conclusion, this paper has explored the role of the Internet of Things (IoT) in enhancing work outcome and employee behavior through organizational support programs. Organizational support programs have been shown to be crucial in enhancing employee performance and well-being, and the impact of IoT technology on these programs has been discussed in detail. The various uses of IoT in organizations have been highlighted, and the factors that influence work outcome and employee behavior have been examined to understand the role of organizational support programs. The potential benefits of using IoT to enhance work outcome and employee behavior have been discussed, including increased productivity, improved employee engagement, and better decision-making. However, the challenges and limitations of using IoT for organizational support programs have also been acknowledged. It is important for organizations to address these challenges, such as security and privacy concerns, compatibility issues, and technical limitations, to fully realize the potential benefits of IoT technology. The importance of effective organizational support programs in enhancing work outcome and employee behavior, and the potential of IoT technology to contribute to these programs. By understanding the role of IoT and addressing its challenges and limitations, organizations can improve their performance and meet their goals while promoting the well-being of their employees.

## References

1. Farooq, M.S.; Riaz, S.; Abid, A.; Abid, K.; Naeem, M.A. A Survey on the Role of IoT in Agriculture for the Implementation of Smart Farming. *IEEE Access* **2019**, *7*, 156237–156271. [[Google Scholar](#)] [[CrossRef](#)]
2. Janssen, M.; Luthra, S.; Mangla, S.; Rana, N.P.; Dwivedi, Y.K. Challenges for adopting and implementing IoT in smart cities: An integrated MICMAC-ISM approach. *Internet Res.* **2019**, *29*, 1589–1616. [[Google Scholar](#)] [[CrossRef](#)][[Green Version](#)]
3. Sharma, M.; Joshi, S.; Kannan, D.; Govindan, K.; Singh, R.; Purohit, H.C. Internet of Things (IoT) adoption barriers of smart cities' waste management: An Indian context. *J. Clean. Prod.* **2020**, *270*, 122047. [[Google Scholar](#)] [[CrossRef](#)]
4. Brous, P.; Janssen, M.; Herder, P. The dual effects of the Internet of Things (IoT): A systematic review of the benefits and risks of IoT adoption by organizations. *Int. J. Inf. Manage.* **2020**, *51*, 101952. [[Google Scholar](#)] [[CrossRef](#)]



5. Eskerod, P.; Hollensen, S.; Morales-Contreras, M.F.; Arteaga-Ortiz, J. Drivers for pursuing sustainability through IoT technology within high-end hotels-An exploratory study. *Sustainability* **2019**, *11*, 5372. [[Google Scholar](#)] [[CrossRef](#)][[Green Version](#)]
6. Caro, F.; Sadr, R. The Internet of Things (IoT) in retail: Bridging supply and demand. *Bus. Horiz.* **2019**, *62*, 47–54. [[Google Scholar](#)] [[CrossRef](#)][[Green Version](#)]
7. Ammirato, S.; Sofu, F.; Felicetti, A.M.; Raso, C. A methodology to support the adoption of IoT innovation and its application to the Italian bank branch security context. *Eur. J. Innov. Manag.* **2019**, *22*, 146–174. [[Google Scholar](#)] [[CrossRef](#)]
8. Deepa, M.; Angappa, G.; Chalde, S.J.; Thanos, P.; Rameshwar, D.; Samuel, W. Vision, applications and future challenges of Internet of Things: A bibliometric study of the recent literature. *Ind. Manag. Data Syst.* **2016**, *116*, 1331–1355. [[Google Scholar](#)] [[CrossRef](#)][[Green Version](#)]
9. Singh, G.; Gaur, L.; Ramakrishnan, R. Internet of things—Technology adoption model in India. *Pertanika J. Sci. Technol.* **2017**, *25*, 835–846. [[Google Scholar](#)]
10. Osmonbekov, T.; Johnston, W.J. Adoption of the Internet of Things technologies in business procurement: Impact on organizational buying behavior. *J. Bus. Ind. Mark.* **2018**, *33*, 781–791. [[Google Scholar](#)] [[CrossRef](#)]
11. Nord, J.H.; Koohang, A.; Paliszkiwicz, J. The Internet of Things: Review and theoretical framework. *Expert Syst. Appl.* **2019**, *133*, 97–108. [[Google Scholar](#)] [[CrossRef](#)]
12. Lee, I. The Internet of Things for enterprises: An ecosystem, architecture, and IoT service business model. *Internet Things* **2019**, *7*, 100078. [[Google Scholar](#)] [[CrossRef](#)]
13. Lee, G. What roles should the government play in fostering the advancement of the internet of things? *Telecomm. Policy* **2019**, *43*, 434–444. [[Google Scholar](#)] [[CrossRef](#)]
14. Rad, B.; Ahmada, H. Internet of Things: Trends, Opportunities, and Challenges. *Int. J. Comput. Sci. Netw. Secur.* **2017**, *17*, 89–95. [[Google Scholar](#)] [[CrossRef](#)]
15. Amodu, L.; Omojola, O.; Okorie, N.; Adeyeye, B.; Adesina, E. Potentials of Internet of Things for effective public relations activities: Are professionals ready? *Cogent Bus. Manag.* **2019**, *6*, 1–15. [[Google Scholar](#)] [[CrossRef](#)]
16. Chukwudebe, G.A.; Ogu, R.E.; Fawei, J.E. Critical requirements for sustainable deployment of IoT systems in Nigeria. In Proceedings of the 2020 IEEE 2nd International Conference on Cyberspac (CYBER), Abuja, Nigeria, 23–25 February 2021; pp. 119–126. [[Google Scholar](#)] [[CrossRef](#)]
17. Ancarani, A.; Mauro, C.D.; Legenvre, H.; Cardella, M.S. Internet of things adoption: A typology of projects. *Int. J. Oper. Prod. Manag.* **2019**, *40*, 849–872. [[Google Scholar](#)] [[CrossRef](#)]
18. Parra, D.T.; Talero-Sarmiento, L.H.; Ortiz, J.D.; Guerrero, C.D. Technology readiness for IoT adoption in Colombian SMEs. In Proceedings of the 2021 16th Iberian Conference on Information Systems and Technologies (CISTI), Chaves, Portugal, 23–26 June 2021; pp. 23–26. [[Google Scholar](#)] [[CrossRef](#)]
19. Parra, D.T.; Guerrero, C.D. Decision-making IoT adoption in SMEs from a technological perspective. In Proceedings of the 2020 15th Iberian Conference on Information Systems and Technologies (CISTI), Seville, Spain, 24–27 June 2020. [[Google Scholar](#)] [[CrossRef](#)]

20. Dachyar, M.; Zagloel, T.Y.M.; Saragih, L.R. Knowledge growth and development: Internet of things (IoT) research, 2006–2018. *Heliyon* **2019**, *5*, e02264. [[Google Scholar](#)] [[CrossRef](#)][[Green Version](#)]
21. Kim, S.; Kim, S. A multi-criteria approach toward discovering killer IoT application in Korea. *Technol. Forecast. Soc. Change* **2016**, *102*, 143–155. [[Google Scholar](#)] [[CrossRef](#)]