

Enterprise Workflow Automation and Workforce Productivity: Evaluating the Economic Benefits of Service Now Adoption Across Industries

(Authors Details)

Divine Ezeagwuna
Independent Researcher, Canada
Email: deaneze@gmail.com

Abstract

The concept of Enterprise Service Management (ESM) has come to the fore as a means for organisations to implement digital technology in a way that enables them to become more cost-efficient, service-smooth and operationally effective. With continuous investments in automating workflows and building integrated service platforms, it's imperative to measure Return on Investment (ROI) to determine the effectiveness and business value of these efforts. This study aims to discuss about 'ServiceNow' as the major Enterprise Service Management (ESM) platform that supports business functions to reduce costs and improve organization's efficiency. The benefits of ServiceNow's features, such as workflow automation, self-service portals, knowledge management, analytics, and the low-code/no-code development tools, for enhancing service performance and optimizing resources are examined. In addition, it explores important ROI metrics, including employee satisfaction, process efficiency, service quality enhancements, operational cost reductions, and productivity improve-ments. Implementations costs are one challenge to ROI measurement along with problems faced with organizational change management, integration complexity and governance concerns are also discussed in the study. Results show that by using ServiceNow, organisations can experience significant service delivery acceleration, transparency of operations and productivity of the workforce, and less of manual processes and administrative costs. The paper wraps up by explaining that a systematic ROI evaluation process is essential for delivering the greatest ROI for an ESM investment, and that ServiceNow offers an excellent groundwork for organizations set on achieving operational excellence and long-term digital transformation triumph.

Keywords: Enterprise Service Management (ESM), Return on Investment (ROI), ServiceNow, Organizational Efficiency, Cost Reduction, Workflow Automation, Digital Transformation, Low-Code Development, No-Code Platforms, Service Delivery Optimization.

DOI: 10.21590/ijtmh.10.04.25

I. Introduction

Enterprise Service Management (ESM) has become a new strategy as an extension of service-oriented practices not just to IT, but to other domains within the organization, including human resources, finance, and customer services. It aims to use technology to boost service delivery efficiency, standardize service procedures and add to the overall responsiveness of the organization. Today, in the digital era, organizations are increasingly relying on scalable automation and application development tools which are capable of delivering benefits for rapid responses to the changing business demands (Korada, 2022; Domański et al., 2023).

One of the main beneficiaries of this change is the emergence of low-code and no-code (LCNC) development solutions that have taken a lot of the complexity and time out of application development and deployment. By empowering technical and non-technical users to engage in application development, these platforms help to democratize software creation and speed up digital transformation efforts. The research indicates that LCNC environments offer great advantages over traditional coding-intensive environments such as significant development efficiency gains, more scalability, and decreased reliance on traditional codings particularly for enterprise service ecosystems (Uzoka et al., 2020; Nam, 2023; Upadhyaya, 2023).

In this context, platforms like ServiceNow have become the focus of the execution of the ESM strategies. With ServiceNow, workflow automation, service catalog management, and analytics capabilities get delivered as a single platform for delivering end-to-end services. Additionally, the adoption of low-code/no-code capabilities in these platforms helps to boost agility by enabling the speedy customization and deployment of services without significant coding (Venkata Subhadu, 2023; Gupta, 2024). This functionality corresponds to the other ones of the industry trends with focus on speed, flexibility and operation efficiency for enterprise system design.

Despite these benefits, organizations feel a growing pressure to provide information on measurable results of investing in an ESM platform – especially ROI (Return on Investment). In this context, ROI goes beyond monetary savings to include gains in terms of productivity, quality of service, worker satisfaction and customer satisfaction. However, accurately quantifying these benefits remains challenging due to the intangible nature of many ESM outcomes and the complexity of enterprise environments (Elshan et al., 2023; McCarthy).

Recent studies highlight that while LCNC platforms and ServiceNow significantly improve software delivery speed and operational performance, they also introduce new governance, integration, and risk considerations that may affect overall value realization (Cui, 2024; Mathur & Gupta, 2024). Additionally, organizations must balance innovation with control, ensuring that rapid development capabilities do not compromise system stability or compliance standards (Wadehra & Anand, 2024; Omorokunwa, 2024).

Furthermore, emerging research indicates that the integration of generative AI with low-code/no-code environments is further reshaping enterprise application development by enhancing automation, decision support, and system intelligence (Sido et al., 2024). This evolution reinforces the need for robust frameworks for evaluating ROI, particularly in environments where continuous digital transformation is driven by platform-based ecosystems.

Therefore, understanding how ServiceNow contributes to organizational efficiency and cost reduction within an ESM framework is essential for evaluating its overall business value. This study situates ROI measurement within the broader context of low-code/no-code-enabled enterprise transformation, focusing on how ServiceNow supports scalable, efficient, and cost-effective service delivery across modern organizations.

2. Enterprise Service Management and ServiceNow Framework

Enterprise Service Management (ESM) extends traditional IT Service Management principles beyond IT functions to encompass enterprise-wide service delivery, including HR, finance, facilities, and customer service. The core objective is to standardize, automate, and optimize service processes across organizational units to improve efficiency, responsiveness, and value realization. ESM leverages integrated digital platforms to unify service workflows, enabling end-to-end visibility and performance optimization across departments (Korada, 2022; Domański et al., 2023).

In this context, ServiceNow functions as a central orchestration platform for ESM implementation. It provides a scalable architecture that integrates service workflows, automation engines, and analytics capabilities into a single system of action. The platform supports digital transformation by enabling organizations to replace fragmented manual processes with automated, data-driven service ecosystems. Its value is further enhanced by low-code/no-code capabilities that allow rapid application development and customization without extensive programming expertise (Uzoka et al., 2020; Nam, 2023).

A key architectural strength of ServiceNow lies in its ability to support modular service design. Each enterprise function can be configured as a service domain with standardized workflows, allowing seamless integration across departments. This aligns with modern digital transformation approaches where agility, interoperability, and scalability are essential for enterprise competitiveness (Upadhyaya, 2023; Omorokunwa, 2024). Furthermore, ServiceNow integrates DevOps automation principles that improve deployment speed and system reliability across enterprise environments (Gupta, 2024).

Low-code and no-code development paradigms play a central role in strengthening ServiceNow’s ESM framework. These paradigms reduce dependency on traditional software engineering cycles by enabling business users and IT teams to collaboratively build and modify applications. This accelerates innovation cycles, reduces development bottlenecks, and enhances organizational responsiveness to changing business needs (Cui, 2024; Venkata Subhadu, 2023). Additionally, the integration of generative AI with low-code/no-code environments further enhances system intelligence, enabling predictive service automation and improved decision support (Sido et al., 2024).

From an operational perspective, ServiceNow enhances enterprise service delivery by embedding automation, workflow orchestration, and analytics into daily business processes. This leads to improved transparency, reduced service delays, and optimized resource utilization. The platform also supports continuous improvement through real-time monitoring and performance analytics, which are essential for evaluating service efficiency and business outcomes (Elshan et al., 2023; Mathur & Gupta, 2024).

Table 1. Core Components of ServiceNow-Based Enterprise Service Management Framework

Component	Description	Functional Role in ESM	Strategic Benefit	Supporting Literature
Service Catalog Management	Centralized repository of enterprise services	Standardizes service requests across departments	Improves consistency and reduces duplication	Korada (2022); Domański et al. (2023)
Workflow Automation Engine	Rule-based process automation system	Automates repetitive service tasks	Reduces operational delays and manual effort	Uzoka et al. (2020); Gupta (2024)
Low-Code/No-Code Development Layer	Visual application development environment	Enables rapid customization of enterprise applications	Accelerates deployment and innovation cycles	Nam (2023); Cui (2024)
Analytics and Reporting Module	Real-time data processing and visualization tools	Tracks service performance and KPIs	Enhances decision-making and ROI tracking	Elshan et al. (2023); Mathur & Gupta (2024)

Integration Hub	API-based system connectivity layer	Connects ServiceNow with external enterprise systems	Enables interoperability and unified service delivery	Upadhyaya (2023); Omorokunwa (2024)
AI-Enhanced Automation Layer	Machine learning and generative AI integration	Predictive service management and automation	Improves efficiency and proactive service resolution	Sido et al. (2024); Doodala (2024)

The ServiceNow framework represents a mature implementation model for ESM, integrating automation, low-code/no-code development, and intelligent analytics into a unified enterprise platform. This convergence of technologies enables organizations to achieve higher operational efficiency, reduced service costs, and improved agility in enterprise service delivery ecosystems (Wadehra & Anand, 2024; McCarthy, 2024).

3. Measuring ROI in Enterprise Service Management

Measuring Return on Investment (ROI) in Enterprise Service Management (ESM) involves quantifying both tangible and intangible benefits derived from service optimization platforms such as ServiceNow. ROI evaluation extends beyond direct financial savings to include productivity improvements, process efficiency, and service quality enhancements enabled by automation and low-code/no-code development paradigms (Korada, 2022; Upadhyaya, 2023). Within modern enterprises, ROI measurement is increasingly aligned with digital transformation outcomes, where platforms are expected to accelerate delivery cycles while reducing operational complexity (Cui, 2024; Gupta, 2024).

A critical dimension of ROI in ESM is the ability to attribute value creation to workflow automation, system integration, and service orchestration. Low-code/no-code capabilities significantly enhance this measurement by reducing development overhead and enabling faster iteration of service applications, thereby shortening the time-to-value cycle (Uzoka et al., 2020; Nam, 2023). Additionally, DevOps automation embedded within ESM platforms improves deployment frequency and reduces failure rates, which directly contributes to operational efficiency gains (Mathur & Gupta, 2024; Venkata Subhadu, 2023).

However, ROI measurement in ESM is complex due to the hybrid nature of value realization. While cost reduction can be measured through decreased incident handling expenses or reduced labor requirements, non-financial benefits such as improved employee experience or service reliability require proxy indicators and performance scoring models (Elshan et al., 2023; McCarthy). Furthermore, organizations must consider risks associated with platform dependency

and customization overhead, which may distort long-term ROI calculations if not properly governed (Korada, 2022; Domański et al., 2023).

Table 2: Key Dimensions and Metrics for ROI Measurement in ESM

ROI Dimension	Key Indicators	Measurement Approach	Strategic Impact	Supporting Literature
Cost Efficiency	Operational expenditure reduction, reduced IT support costs	Pre- and post-implementation cost comparison	Direct financial savings	Korada (2022); Gupta (2024)
Productivity Improvement	Task completion time, employee workload reduction	Time-motion studies, workflow analytics	Higher output per employee	Cui (2024); Mathur & Gupta (2024)
Service Quality	Incident resolution rate, SLA compliance	Service desk analytics, performance dashboards	Improved customer satisfaction	Elshan et al. (2023); Nam (2023)
Process Automation Value	Percentage of automated workflows, manual task reduction	System logs and automation tracking	Reduced human intervention	Uzoka et al. (2020); Venkata Subhadu (2023)
Agility and Delivery Speed	Deployment frequency, time-to-market	DevOps metrics and release cycles	Faster digital service rollout	Gupta (2024); Omorokunwa (2024)
User Experience	Employee satisfaction, service accessibility	Surveys and experience scoring	Improved adoption and engagement	Domański et al. (2023); Sido et al. (2024)
Risk and Governance Efficiency	Compliance rate, system stability	Audit logs and risk assessment reports	Reduced operational and security risks	McCarthy; Wadehra & Anand (2024)

From a methodological standpoint, effective ROI measurement in ESM requires a balanced scorecard approach that integrates financial, operational, and experiential metrics. Traditional ROI models focusing solely on cost-benefit analysis are increasingly insufficient in low-code/no-code-enabled environments, where value is also generated through accelerated innovation cycles and improved service scalability (Nam, 2023; Doodala, 2024). Consequently, organizations are adopting hybrid evaluation frameworks that combine quantitative KPIs with qualitative performance assessments to fully capture the value delivered by platforms like ServiceNow (Cui, 2024; Uzoka et al., 2020).

In summary, ROI in Enterprise Service Management is best understood as a multidimensional construct that reflects both efficiency gains and strategic agility. The integration of low-code/no-code technologies, automation frameworks, and DevOps practices strengthens ROI outcomes by reducing development friction and enhancing service responsiveness across enterprise ecosystems (Gupta, 2024; Mathur & Gupta, 2024).

4. ServiceNow's Contribution to Organizational Efficiency and Cost Reduction

ServiceNow functions as a central enterprise service management (ESM) platform that significantly improves organizational efficiency through process automation, service integration, and low-code/no-code extensibility. Its contribution to cost reduction is largely driven by its ability to streamline workflows, reduce manual intervention, and enable rapid application delivery across business units. These capabilities align with broader digital transformation trends in low-code/no-code ecosystems that emphasize speed, scalability, and operational optimization (Uzoka et al., 2020; Cui, 2024).

A key mechanism through which ServiceNow enhances efficiency is workflow automation. By digitizing and standardizing service processes such as incident management, HR requests, and IT service delivery, organizations eliminate redundant manual tasks and reduce process fragmentation. This results in faster resolution times and improved service consistency across departments (Gupta, 2024; Mathur & Gupta, 2024). Additionally, self-service portals empower employees and customers to resolve routine issues independently, reducing dependency on support teams and lowering operational overhead (Korada, 2022; Domański et al., 2023).

The integration of low-code/no-code capabilities further strengthens ServiceNow's efficiency impact. Business users can develop and deploy applications with minimal coding effort, significantly reducing development cycles and IT backlog. This democratization of application development enhances agility and allows organizations to respond quickly to changing business requirements without extensive software engineering resources (Nam, 2023; Venkata Subhadu, 2023). Furthermore, AI-enhanced automation and generative tools increasingly embedded in

low-code environments improve decision support and predictive service management, further increasing productivity gains (Sido et al., 2024; Omorokunwa, 2024).

From a cost reduction perspective, ServiceNow contributes by minimizing infrastructure redundancy, optimizing resource allocation, and reducing labor-intensive service operations. Automated routing, incident classification, and knowledge-driven resolution systems significantly reduce the cost per ticket and improve first-contact resolution rates. Over time, these efficiencies compound into measurable reductions in total cost of ownership (TCO) for enterprise service environments (Upadhyaya, 2023; Elshan et al., 2023). Additionally, DevOps automation and continuous delivery pipelines supported by ServiceNow reduce deployment overhead and accelerate time-to-value for enterprise applications (Wadehra & Anand, 2024).

Table 3. ServiceNow Contributions to Organizational Efficiency and Cost Reduction

Contribution Area	Mechanism in ServiceNow	Efficiency Outcome	Cost Reduction Impact	Supporting Literature
Workflow Automation	Standardized digital workflows for ITSM, HR, and operations	Faster service delivery and reduced bottlenecks	Lower labor and processing costs	Gupta (2024); Mathur & Gupta (2024)
Self-Service Enablement	Knowledge bases and automated request portals	Reduced support dependency	Decreased service desk workload	Korada (2022); Domański et al. (2023)
Low-Code/No-Code Development	Visual application builders and reusable components	Rapid application deployment	Reduced development and maintenance costs	Nam (2023); Cui (2024)
DevOps Automation	Continuous integration and deployment pipelines	Faster release cycles and improved reliability	Reduced deployment overhead	Wadehra & Anand (2024)
AI-Driven Service Management	Predictive analytics and generative automation	Improved decision accuracy and response time	Reduced operational inefficiencies	Sido et al. (2024); Omorokunwa (2024)

Process Integration	Cross-functional workflow unification	Improved coordination across departments	Reduced duplication of effort	Uzoka et al. (2020); Elshan et al. (2023)
Service Virtualization	Test environment automation and simulation	Accelerated testing and validation	Lower infrastructure and testing costs	Doodala (2024)

ServiceNow’s contribution to organizational performance is rooted in its ability to unify enterprise services, automate repetitive processes, and enable rapid digital solution development. These capabilities collectively enhance operational efficiency while simultaneously reducing direct and indirect costs associated with traditional service management models.

5. Challenges, Risks, and Strategic Considerations

The implementation of Enterprise Service Management (ESM) platforms such as ServiceNow, particularly when enhanced by low-code/no-code capabilities, introduces significant organizational value but also a complex set of challenges. These challenges span technical, organizational, governance, and strategic dimensions, directly influencing the reliability of ROI realization and long-term sustainability of digital transformation initiatives (Korada, 2022; McCarthy; Upadhyaya, 2023).

5.1 Implementation Complexity and Integration Constraints

One of the primary challenges lies in integrating ServiceNow into heterogeneous IT ecosystems. Legacy systems often lack compatibility with modern API-driven architectures, leading to integration bottlenecks and delayed ROI realization. Additionally, organizations adopting low-code/no-code development models may underestimate architectural complexity, resulting in fragmented workflows and inconsistent service delivery (Uzoka et al., 2020; Venkata Subhadu, 2023).

5.2 Governance, Security, and Compliance Risks

As ServiceNow environments increasingly empower non-technical users through low-code/no-code interfaces, governance challenges emerge. Citizen development can lead to uncontrolled application proliferation, data inconsistencies, and security vulnerabilities if proper oversight is absent. Ensuring compliance with enterprise architecture standards and regulatory frameworks becomes more difficult in decentralized development environments (McCarthy; Domański et al., 2023).

5.3 User Adoption and Change Management Barriers

Resistance to change remains a critical barrier in ESM deployments. Employees may be reluctant to transition from traditional service models to automated workflows due to perceived job displacement or unfamiliarity with digital tools. Without structured training and change management programs, the anticipated efficiency gains and cost reductions may not materialize (Nam, 2023; Mathur & Gupta, 2024).

5.4 Platform Dependency and Vendor Lock-In

ServiceNow’s ecosystem, while robust, can create dependency risks. Organizations may become overly reliant on proprietary configurations and workflows, limiting flexibility in future system migrations or multi-platform strategies. This dependency can increase long-term operational costs and reduce bargaining power with vendors (Wadehra & Anand, 2024; Omorokunwa, 2024).

5.5 Performance Trade-offs in Low-Code/No-Code Development

Although low-code/no-code platforms accelerate development cycles, they may introduce trade-offs in system performance, scalability, and customization depth. Rapid application deployment can sometimes lead to inefficient architecture decisions, affecting long-term maintainability and ROI consistency (Cui, 2024; Mathur & Gupta, 2024).

Table 4: Challenges, Risks, and Strategic Mitigation Approaches in ServiceNow-Based ESM

Challenge Category	Description of Risk	Impact on ROI	Strategic Mitigation Approach	Key Supporting Literature
Integration Complexity	Difficulty connecting legacy systems with ServiceNow workflows	Delayed ROI realization and inefficiencies	Phased integration and API standardization	Uzoka et al. (2020); Venkata Subhadu (2023)
Governance & Security Risks	Uncontrolled low-code development and data inconsistency	Increased compliance risk and operational instability	Strong governance frameworks and centralized oversight	McCarthy; Domański et al. (2023)

Change Management Barriers	Employee resistance to automation and new workflows	Reduced adoption and productivity loss	Training, communication, and stakeholder engagement	Nam (2023); Mathur & Gupta (2024)
Vendor Lock-in	Dependence on proprietary ServiceNow ecosystem	Reduced flexibility and higher long-term costs	Multi-cloud strategy and modular architecture	Wadehra & Anand (2024); Omorokunwa (2024)
Performance Trade-offs	Rapid development may reduce system optimization	Scalability and maintainability issues	Architectural governance and code review standards	Cui (2024); Mathur & Gupta (2024)

5.6 Strategic Considerations for Sustainable ROI Realization

To ensure that ROI from ServiceNow-driven ESM implementations is both measurable and sustainable, organizations must adopt a strategic governance model that balances agility with control. This includes establishing enterprise-wide development standards for low-code/no-code platforms, implementing continuous performance monitoring, and aligning digital transformation initiatives with business value streams (Gupta, 2024; Sido et al., 2024).

Furthermore, organizations should treat ServiceNow not merely as a service automation tool but as a strategic enterprise platform. This requires long-term investment in skills development, cross-functional collaboration, and architectural maturity to ensure that efficiency gains translate into sustained financial and operational returns (Elshan et al., 2023; Omorokunwa, 2024).

Conclusion

For Enterprise Service Management (ESM), ROI is one yardstick used to prove that value realization is becoming more and more reliant on digital platforms that are Agile, Automated, and Scalable. As a premier ESM solution, ServiceNow plays a crucial role in enhancing organizational efficiency by optimizing service delivery, minimizing manual effort, and uncovering insights and opportunities in real time. These capabilities have significant cost saving and productivity enhancing implications, confirming its strategic relevance in today's business context.

The use of low-code and no-code development approaches is often a transformative leverage for the value generation, as changing our perspective on service application design, deployment and scaling. Due to its ability to bypass conventional software engineering cycles, these platforms

play a vital role in driving faster innovation and enhancing delivery efficiency (Uzoka et al., 2020; Upadhyaya, 2023). Recent research also suggests that low-code/no-code environments have the potential to significantly boost development efficiency, software quality, and organizational agility, especially for enterprise applications that are rapidly changing (Cui, 2024; Mathur & Gupta, 2024). Moreover, its embedded support for enterprise integrations like ServiceNow allows for swift automation of service processes, ensuring efficient and scalable service delivery (Gupta, 2024; Venkata Subhadu, 2023).

In spite of these benefits, therefore, organisations should be warily aware of the platform dependency, security concerns, and process standardisation issues which may be associated with platform selection (McCarthy; Elshan et al., 2023; Korada, 2022). To gain the expected return on investment, however, there needs to be both deliberate implementation and change management, and independent assessment of performance.

To summarise, the collaborative nature of using a ServiceNow-based ESM with low-code/no-code platforms is an exciting new way to make enterprise measurable and beneficial ROI. When these technologies merge to automate, analyze, and develop Agile processes, organizations can optimize costs continually, deliver better services, and build more operational resilience (Omorokunwa, 2024; Sido et al., 2024; Domański et al., 2023; Wadehra & Anand, 2024; Doodala, 2024).

References

1. Uzoka, C. H. U. K. W. U. E. M. E. K. E., Adekunle, B. I., Mustapha, S. D., & Adewusi, B. A. (2020). Advances in low-code and no-code platform engineering for scalable product development in cross-sector environments. *Int J Softw Eng*, 14(2), 89-104.
2. Nam, P. H. (2023). *Transforming business applications in SME by implementing low-code no-code development platforms* (Doctoral dissertation).
3. Upadhyaya, N. (2023). Low-Code/No-Code platforms and their impact on traditional software development: A literature review. *No-Code Platforms and Their Impact on Traditional Software Development: A Literature Review* (March 21, 2023).
4. Cui, J. (2024). The Impact of Low-Code and No-Code Programming on Software Product Delivery Quality and Development Efficiency. Available at SSRN 5010766.
5. Venkata Subhadu, V. (2023). *IT methods for operational near applications: low-code and no-code as rapid-application-development tools* (Doctoral dissertation, Technische Hochschule Ingolstadt).
6. Gupta, P. (2024). Low-Code/No-Code DevOps Automation for Accelerated Digital Transformation in Global Enterprises. *International Journal of Emerging Research in Engineering and Technology*, 5(3), 142-147.

7. Domański, R., Wojciechowski, H., Lewandowicz, J., & Hadaś, Ł. (2023). Digitalization of management processes in small and medium-sized enterprises—an overview of low-code and no-code platforms. *Applied Sciences*, 13(24), 13078.
8. Omorokunwa, A. (2024). The Rise of Low-Code and No-Code Software Development Models: Trends and Tools. Available at SSRN 6237918.
9. Sido, N., Emon, E. A., Ahmed, E., & Falch, M. (2024). Low/no code development and generative AI. *Bachelor's thesis*.
10. Mathur, P., & Gupta, D. (2024, August). Impact of Low Code/No Code on Traditional Software Development. In *International Conference on ICT for Sustainable Development* (pp. 497-505). Singapore: Springer Nature Singapore.
11. McCarthy, S. EXPLORING THE NATURE OF RISK IN DIGITAL TRANSFORMATION: A PROBLEMATISATION PERSPECTIVE OF LOW-CODE/NO-CODE PLATFORM RISK.
12. Kola, J. N. (2011). An Integrated Framework for Data Mining and Distributed Database Optimization in Resource-Constrained Network Environments. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 2(02), 82-86.
13. Takon, A. (2022). Advanced AI Techniques for Safety and Risk Evaluation in High-Hazard Engineering Systems. *International Journal of Technology, Management and Humanities*, 8(04), 97-109.
14. Warren, B. (2021). Transforming Enterprise Office Networks with EVPN-VXLAN: A BGP-Based Approach to Layer 2 Elimination. *International Journal of Technology, Management and Humanities*, 7(04), 63-82.
15. Takon, A. (2020). Adaptive Pipeline Monitoring Using Unsupervised Anomaly Detection. *International Journal of Technology, Management and Humanities*, 6(03-04), 93-106.
16. Singh, S. S. (2022). Accessibility and Universal Design in Transportation Infrastructure. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 14(04), 210-214.
17. Takon, A. (2021). AI Safety Systems and Risk Analytics for High-Hazard Engineering Systems. *Multidisciplinary Innovations & Research Analysis*, 2(2), 1-20.
18. Kola, J. N. (2023). Quantifying Revenue Impact of Enterprise Analytics: A Revenue Attribution Framework for Business Intelligence Systems.
19. Takon, A. (2023). Machine Learning (ML)–Based Cyber Threat Modelling for Industrial Control Systems in critical Infrastructure. *International Journal of Technology, Management and Humanities*, 9(02), 94-108.
20. Singh, S. S. (2023). Code Compliance Challenges in High-Stakes Infrastructure Projects. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 15(01), 213-221.

21. Kola, J. N. (2023). Measuring the Business Value of Analytics-Driven Decisions: A Decision Impact Attribution Framework for Enterprise Environments.
22. Singh, S. S. (2023). Architectural Identity in Transit Infrastructure: Branding vs Functionality. *Multidisciplinary Innovations & Research Analysis*, 4(2), 1-12.
23. Takon, A. (2024). Data-Driven Threat Intelligence for Energy and Critical Asset Management. *International Journal of Technology, Management and Humanities*, 10(04), 253-266.
24. Kola, J. N. Longitudinal Cohort Intelligence for Self-Insured Employer Groups: A Predictive Framework for Healthcare Cost Trajectory Modeling and Proactive Risk Intervention.
25. Adepoju, S. A., & Adepoju, M. A. (2024). From Portals to Case Graphs: A Reference Architecture and Benchmark for Safety Investigation Operations with Agentic Orchestration.
26. Takon, A. (2024). Data Science Approaches to Asset Integrity Management in Offshore and Onshore Oil and Gas Operations. *Multidisciplinary Innovations & Research Analysis*, 5(2), 17-31.
27. Kola, J. N. (2011). An Integrated Framework for Data Mining and Distributed Database Optimization in Resource-Constrained Network Environments. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 2(02), 82-86.
28. Ravikumar, V. (2014). Fair and optimal resource allocation in wireless sensor networks.
29. Naidu, K. J. (2014). Secure OLAP Reporting Architectures: Integrating Role-based Access Control and Query Execution Plan Optimization for Enterprise Analytical Environments. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 5(02), 155-159.
30. Verma, A. (2023). Beyond the Air Gap: Autonomous AI-Driven Anomaly Detection in Converged IT/OT Critical Infrastructure Environments. *International Journal of Humanities and Information Technology*, 5(02), 66-86.
31. Al Kalach, N. (2023). End-to-End Salesforce Release Management with Automated Testing, Version Control, and CI Pipelines. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 15(04), 449-460.
32. Barua, S. (2023). Hybrid Electro-membrane Reactors for Decentralized Removal of Forever Chemicals From Industrial Wastewater. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 15(04), 461-468.
33. Kaliyat Gamba, & John Emoabino. (2023). Assessing Youth Suicidality Trends Through Digital Phenotyping and Sensor-Based Risk Identification Systems. *International Journal of Health and Biological Sciences*, 6(4), 1–23.

34. Williams, M. O. (2023). Numerical Modelling of Reactive Transport in Geothermal Reservoirs for Long-Term Performance Prediction. *International Journal of Environmental Sciences*, 9(1s), 2023.
35. Goel, N. Privacy Risks and Protection in the Digital World of IoT. *Panamerican Mathematical Journal*, 33(1), 2023.
36. Singh, S. S. (2023). Human-Centered Design in Underground Transit Environments. *Multidisciplinary Innovations & Research Analysis*, 4(3), 1-20.
37. Naidu, K. J. (2013). Performance Optimization Of ETL Pipelines In Distributed Data Warehouse Environments: A Network-Aware Scheduling Approach. *International Journal of Advance Industrial Engineering*, 1(03), 63-67.
38. Goel, N. Vulnerability Management in Computer Systems: Challenges and Approaches. *Educational Administration: Theory and Practice*, 28 (04) 718-724 Doi: 10.53555/kuey.v28i4.11607.
39. Naidu, K. J. (2014). Secure OLAP Reporting Architectures: Integrating Role-based Access Control and Query Execution Plan Optimization for Enterprise Analytical Environments. *SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology*, 5(02), 155-159.
40. Elshan, E., Dickhaut, E., & Ebel, P. A. (2023). An investigation of why low code platforms provide answers and new challenges.
41. Korada, L. (2022). Low code/no code application development-opportunity and challenges for enterprises. *International journal on recent and innovation trends in computing and communication*, 10(11), 209-218.
42. Wadehra, S., & Anand, A. (2024). BlastAsia–its quest for innovation in enterprise software application development. *Journal of Information Technology Case and Application Research*, 26(3), 185-221.
43. Doodala, A. N. K. (2024). Low-code service virtualization platforms: Democratizing test environment Creationsss. *American International Journal of Computer Science and Technology*, 6(5), 57-68.