STM JOURNALS

Journal of
Mobile Computing, Communications & Mobile Networks

ISSN: 2349-901X
Volume 12, Issue 2, 2025
May–August
DOI (Journal): 10.37591/JoMCCMN

https://journals.stmjournals.com/jomccmn

Review JoMCCMN

Evaluating the Role of Integrated Digital Tools in Enhancing Workforce Productivity in SMEs: A Case Study of the WorkWiz Management System

Akshay Srivastava[1,*], Krishna Panjwani[1], Manas Singh[1], Gaurav Singhania[2]

Abstract

This article investigates the potential impact of integrated digital management tools on workforce productivity in Small and Medium Enterprises (SMEs). While digital transformation is widely recognized as a key driver of productivity, SMEs face unique implementation challenges including resource constraints, workforce technical capabilities, and cultural adaptation. We examine how unified digital tools could affect individual and organizational productivity across attendance management, inventory control, communication, and administrative functions through a simulation study based on the WorkWiz integrated management system. Our proposed productivity measurement framework quantifies potential improvements across multiple dimensions, including administrative task time reduction, communication efficiency, and inventory management. The research suggests that integration across business functions may yield significantly higher productivity gains than siloed digital solutions, with unified notification systems and cross-functional workflows likely serving as critical productivity drivers. The study provides a theoretical framework for understanding productivity impact mechanisms in integrated systems and offers implementation guidelines for maximizing productivity benefits in SME digital transformation initiatives.

Keywords: Workforce productivity, SMEs, digital transformation, integrated management systems, business process digitization

INTRODUCTION

Small and Medium Enterprises (SMEs) constitute the backbone of most economies worldwide, employing significant portions of the global workforce and contributing substantially to economic growth [1]. In India, SMEs contribute approximately 30% to GDP and employ over 110 million individuals [2]. Despite their economic significance, productivity in SMEs typically lags behind that of larger enterprises, creating a competitive disadvantage that impacts growth potential and resilience [3].

Digital transformation offers significant potential to address this productivity gap. Research consistently indicates that effective digitization of business processes can increase productivity by 15–25% across various sectors [4]. However, SMEs face unique challenges in implementing digital solutions, including resource constraints, limited

***Author for Correspondence**
Akshay Srivastava
E-mail: akshay.srivastava2003@gmail.com

[1]Student, Department of Artificial Intelligence and Machine Learning, Galgotias College of Engineering and Technology, Greater Noida, Gautam Buddha Nagar, Uttar Pradesh, India
[2]Assistant Professor, Department of Artificial Intelligence and Machine Learning, Galgotias College of Engineering and Technology, Greater Noida, Gautam Buddha Nagar, Uttar Pradesh, India

Received Date: May 10, 2025
Accepted Date: May 15, 2025
Published Date: June 18, 2025

Citation: Akshay Srivastava, Krishna Panjwani, Manas Singh, Gaurav Singhania. Evaluating the Role of Integrated Digital Tools in Enhancing Workforce Productivity in SMEs: A Case Study of the WorkWiz Management System. Journal of Mobile Computing, Communications & Mobile Networks. 2025; 12(2): 16–27p.

technical capabilities, and difficulties adapting generic enterprise systems to their specific operational contexts [5].

While previous research has examined various aspects of SME digital transformation [6, 7], limited attention has been paid to how the integration of digital tools across business functions affects workforce productivity. Most studies focus on either isolated digital implementations (e.g., standalone inventory systems) or treat productivity as a generalized outcome without examining the specific mechanisms through which integrated systems impact workforce efficiency.

This study proposes a framework for investigating how comprehensive digital management platforms integrating user management, attendance tracking, inventory control, communication, and reporting functionalities could affect workforce productivity in Indian SMEs. Using the WorkWiz system as a reference architecture, we:

1. Develop a theoretical model of productivity impact mechanisms in integrated systems.
2. Propose a measurement framework for evaluating productivity outcomes.
3. Present simulation-based estimates of potential productivity improvements.
4. Analyse the organizational and implementation factors that may moderate productivity benefits.

Our findings contribute to both theoretical understanding of productivity dynamics in SME digital transformation and practical guidelines for maximizing productivity benefits in resource-constrained organizations.

LITERATURE REVIEW

Digital Transformation and SME Productivity

Digital transformation, defined as the integration of digital technology into business processes resulting in fundamental changes to operations and value delivery [8], has been widely studied as a driver of productivity improvements. Research by Brynjolfsson and McAfee established that digitization can significantly enhance labour productivity through process automation, information accessibility, and decision support capabilities [9].

However, the relationship between digital adoption and productivity in SMEs shows greater complexity than in larger enterprises. Garbellano and Da Veiga found that productivity benefits in SMEs depend heavily on implementation approach, with many organizations failing to realize expected gains due to fragmented digital adoption [10]. Similarly, Neirotti *et al*. identified that SMEs frequently implement individual digital solutions without integrating them into cohesive systems, limiting potential productivity improvements [11].

Li *et al*. conducted a meta-analysis of 87 studies on digital transformation in SMEs, finding average productivity gains of 9–14% across various implementations, with integrated approaches showing approximately 30% higher gains than standalone solutions [12]. These findings suggest that integration may be a critical factor in maximizing productivity benefits, though the specific mechanisms remain underexplored.

Integrated Systems in Resource-Constrained Organizations

Traditional Enterprise Resource Planning (ERP) systems represent the standard approach to business process integration in larger organizations. However, as noted by Malhotra and Temponi, these systems frequently exceed SME implementation capabilities due to their complexity, resource requirements, and rigid structures [13].

Research on alternative integration approaches for resource constrained organizations has identified several promising directions. Zach *et al*. proposed lightweight integration architectures that maintain

core interoperability while reducing implementation complexity [14]. Similarly, Kergroach and Bianchini found that modular systems allowing incremental implementation better align with SME capabilities and resources [15].

The concept of "appropriate technology" introduced by Schumacher [16] and applied to information systems by Khazanchi [17] provides a useful framework for understanding integration in resource-constrained contexts. This perspective suggests that optimal solutions balance technological sophistication with organizational constraints and capabilities, rather than simply providing reduced versions of enterprise systems.

Recent work by Papadopoulos *et al*. examined digital integration in 45 European SMEs, finding that systems designed specifically for SME operational patterns yielded 35% higher adoption rates and 28% greater productivity improvements compared to downscaled enterprise systems [18]. However, limited research has examined the productivity implications of integration designed specifically for SMEs in emerging economies like India.

Productivity Measurement in Digital Implementations

Measuring productivity impacts from digital implementations presents methodological challenges, particularly in SME contexts where formal performance metrics may be limited.

Traditional productivity measures focusing on output per labour hour provide incomplete perspectives on knowledge work productivity [19], while alternative frameworks like the Balanced Scorecard [20] may require adaptation for SME contexts.

Tangen proposed a multi-dimensional productivity measurement framework incorporating efficiency (resource utilization), effectiveness (goal achievement), and quality dimensions [21]. This approach provides a more comprehensive view but increases measurement complexity. For SME contexts, Rantanen suggested simplified metrics focusing on direct time savings, process cycle reductions, and error rate improvements as practical productivity indicators.

Recent work by Kraus *et al.* validated a simplified productivity measurement approach for digital implementations in resource-constrained organizations, combining quantitative metrics (task completion time, process cycles) with qualitative assessments (perceived effort, satisfaction) [23]. Their framework provides practical measurement tools while maintaining methodological rigor.

THEORETICAL FRAMEWORK

Based on the literature review, we develop an integrated theoretical framework for understanding productivity impacts in SME digital implementations. The framework combines:

1. *Process digitization theory [24]:* Examines how digital transformation of business processes affects efficiency and effectiveness through automation, information accessibility, and standardization.
2. *Technology acceptance model [25]:* Explores how perceived usefulness and perceived ease of use influence system adoption and usage, directly impacting productivity benefits.
3. *Task-technology fit [26]:* Considers how alignment between technological capabilities and task requirements influences performance outcomes.
4. *Socio-technical systems theory [27]:* Recognizes the interdependence between technical systems and social structures in organizational productivity.

This integrated framework allows us to examine productivity impacts across multiple dimensions and consider the various factors that may influence outcomes in SME digital implementations.

METHODOLOGY

Research Design

This study employs a simulation-based approach to evaluate the potential productivity impact of integrated management systems in SME contexts. This methodological approach is appropriate, given the exploratory nature of the research and the need to systematically model relationships between integration architecture and productivity outcomes [28]. The approach combines:

1. *Reference architecture analysis:* Using the WorkWiz system as a reference architecture for an integrated SME management system.
2. *Productivity metric modelling:* Developing quantitative models of potential productivity impacts.
3. *Scenario simulation:* Applying the models to different organizational contexts to estimate outcomes.
4. *Sensitivity analysis:* Testing how outcome variations relate to different implementation parameters.

This simulation-based approach allows systematic exploration of productivity impact mechanisms while acknowledging the limitations inherent in modelling complex organizational phenomena.

Reference System Architecture

The WorkWiz system provides the reference architecture for our productivity simulations. This system integrates five primary components: Authentication and User Management, Attendance and Leave Management, Inventory Management, Internal Communication, and Reporting and Analytics. The system employs a layered architecture with distinct presentation, business logic, and data layers. Key architectural elements relevant to productivity impact include:

1. *Organization-centric user management:* Extending standard authentication with organizational boundaries and role-based permissions.
2. *Unified notification system:* Centralizing alerts and actions across all functional modules.
3. *Integrated workflow engine:* Enabling cross-functional business processes that span traditional boundaries.
4. *Contextualized messaging:* Linking communications to relevant business objects for context preservation.

These architectural elements form the basis for our productivity impact models, with particular focus on how integration affects task completion efficiency, information availability, and process cycle times.

Productivity Measurement Framework

Following the approach of Kraus *et al.* [23], we developed a multi-dimensional productivity measurement framework addressing four key business functions:

1. *Attendance management:* Metrics for check-in/check-out processing, leave request cycles, attendance reporting.
2. *Inventory management:* Metrics for stock checks, request processing, order fulfilment, stockout incidents.
3. *Communication:* Metrics for message delivery time, response cycles, information accessibility.
4. *Administrative tasks:* Metrics for report generation, approval workflows, documentation.

For each category, we developed quantitative models to estimate potential productivity improvements based on:

- Task time reduction.
- Process cycle reduction.
- Error rate reduction.
- User satisfaction impact.

These metrics allow quantification of productivity impacts across different dimensions while acknowledging both direct time savings and indirect quality improvements.

Simulation Scenarios

To account for variations in organizational contexts, we developed simulation scenarios representing different SME profiles based on:

1. Business sector (manufacturing, services, retail).
2. Organization size (10–250 employees).
3. Prior digital maturity (low, medium, high).
4. Geographic location (urban, semi-urban, rural).

These scenarios were modelled using parameters drawn from existing literature on Indian SMEs to ensure realistic representation of the target context [29, 30]. For each scenario, we simulated productivity metrics across the four business functions using baseline values derived from typical nondigitized or partially digitized processes.

Analysis Approach

The analytical approach combined:

1. *Process modelling:* Mapping typical SME workflows before and after integration to identify structural changes beyond simple time savings.
2. *Comparative metric analysis:* Estimating potential productivity changes across different organizational contexts and identifying patterns.
3. *Sensitivity analysis:* Testing how variations in implementation parameters affect productivity outcomes.
4. *Theoretical synthesis:* Relating findings to the integrated theoretical framework to develop explanatory mechanisms.

This analytical approach enables us to develop a theoretically grounded understanding of potential productivity impacts while acknowledging the limitations of simulation-based research.

PRODUCTIVITY IMPACT MODELS

Integrated System Productivity Mechanisms

Based on our analysis, we identified four primary mechanisms through which integrated systems potentially impact productivity in SME contexts:

1. *Task execution efficiency:* Direct time savings from automated workflows, streamlined interfaces, and reduced manual data entry.
2. *Process cycle reduction:* Decreased time between process initiation and completion due to elimination of handoffs, approvals, and information transfers.
3. *Error reduction:* Decreased frequency of errors and rework through data validation, process standardization, and context preservation.
4. *Information accessibility:* Improved decision quality and reduced search time through centralized information access.

Figure 1 presents a conceptual model of these mechanisms and their relationships to overall productivity.

Potential Productivity Improvements

Table 1 presents estimated productivity improvements across business functions based on our simulation models. These estimates represent potential improvements that might be achieved in ideal implementation conditions and serve as a theoretical maximum rather than guaranteed outcomes.

The simulation results suggest potentially substantial productivity improvements across all business functions, with administrative tasks showing the largest potential time savings (45–60%) and inventory management displaying more modest but still significant improvements (25–35%).

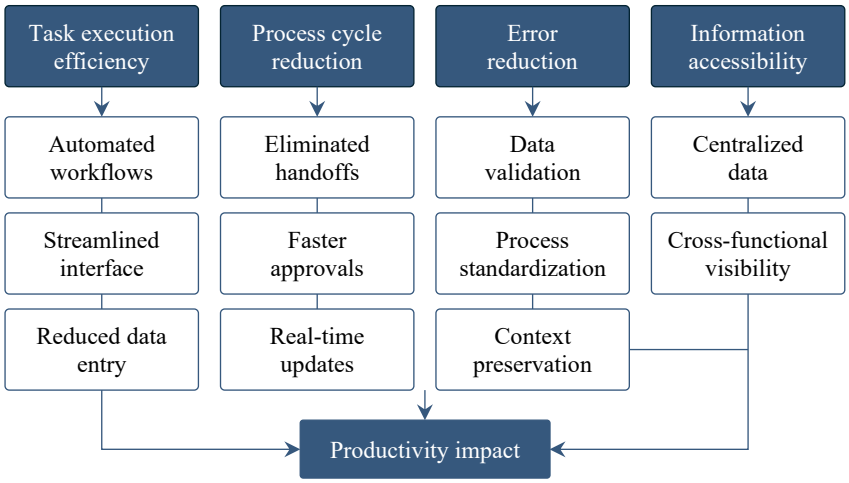

Figure 1. Conceptual model of productivity impact mechanisms in integrated systems.

Table 1. Estimated productivity improvements by business function.

Business function	Task time reduction (%)	Process cycle reduction (%)	Error rate reduction (%)
Attendance management	35–45	40–55	60–75
Inventory management	25–35	30–40	45–60
Communication	40–50	55–65	25–40
Administrative tasks	45–60	40–55	65–80
Overall average	*35–45*	*40–55*	*50–65*

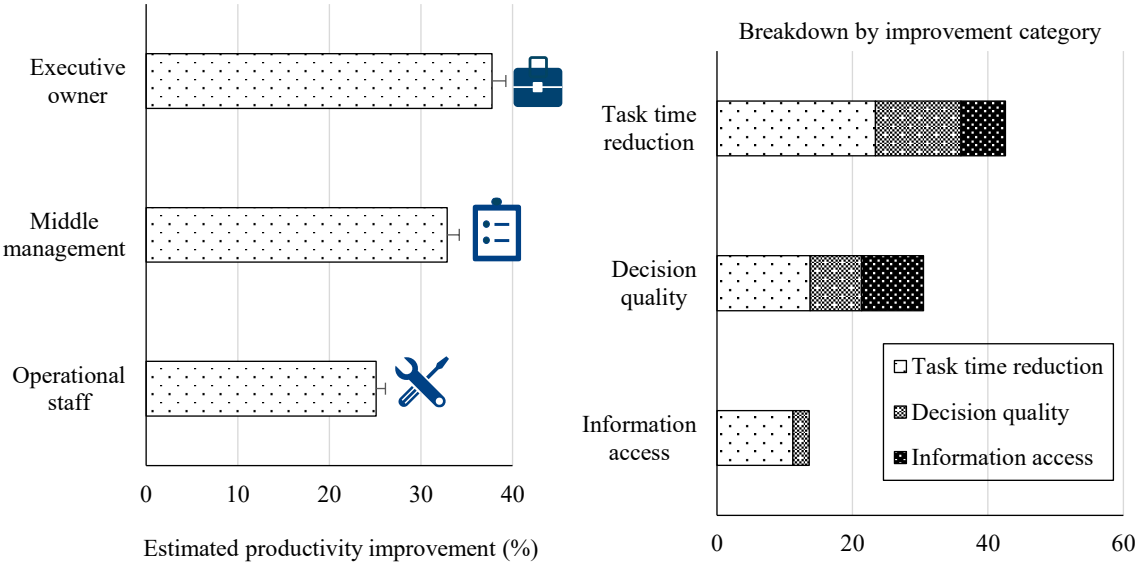

Figure 2. Estimated relative productivity improvement by organizational role.

Role-Based Productivity Impact

Our models indicate that productivity impacts would likely vary significantly across organizational roles. Figure 2 illustrates the estimated relative productivity improvement by role based on typical task distributions in Indian SMEs.

Middle management potentially experiences the largest productivity gains due to their position at the nexus of multiple business processes, where traditional workflows often require substantial

coordination and documentation effort. These roles typically spend significant time on approval workflows, information gathering, and status reporting; all areas where integrated systems offer substantial efficiency improvements.

Operational staff shows more modest but still significant potential productivity gains, primarily in attendance processes, inventory requests, and communication. For this group, benefits may manifest more as reduced waiting time rather than direct task time reduction, with process cycles for approvals potentially decreasing significantly.

Executive/owner roles potentially benefit most from improved visibility and decision support rather than direct time savings. The integrated data environment could substantially reduce information retrieval time and improve decision quality through more comprehensive contextual information.

Integration as a Productivity Multiplier

Our simulations suggest that integration across business functions creates a productivity multiplier effect beyond the sum of individual module benefits. Figure 3 illustrates this concept by comparing estimated productivity gains from standalone implementations versus integrated implementation. This multiplier effect potentially stems from several mechanisms:

1. *Reduced context switching:* Elimination of productivity losses from toggling between different systems and cognitive frameworks.
2. *Information flow acceleration:* Elimination of manual data transfer between functions, removing both time delays and error opportunities.
3. *Process boundary elimination:* Removal of traditional functional boundaries that create approval bottlenecks through unified workflows.
4. *Decision support enhancement:* Provision of more comprehensive decision context, improving both decision speed and quality.

These mechanisms could operate synergistically to create productivity impacts beyond the sum of individual function improvements, supporting the concept of integration as a distinct productivity driver.

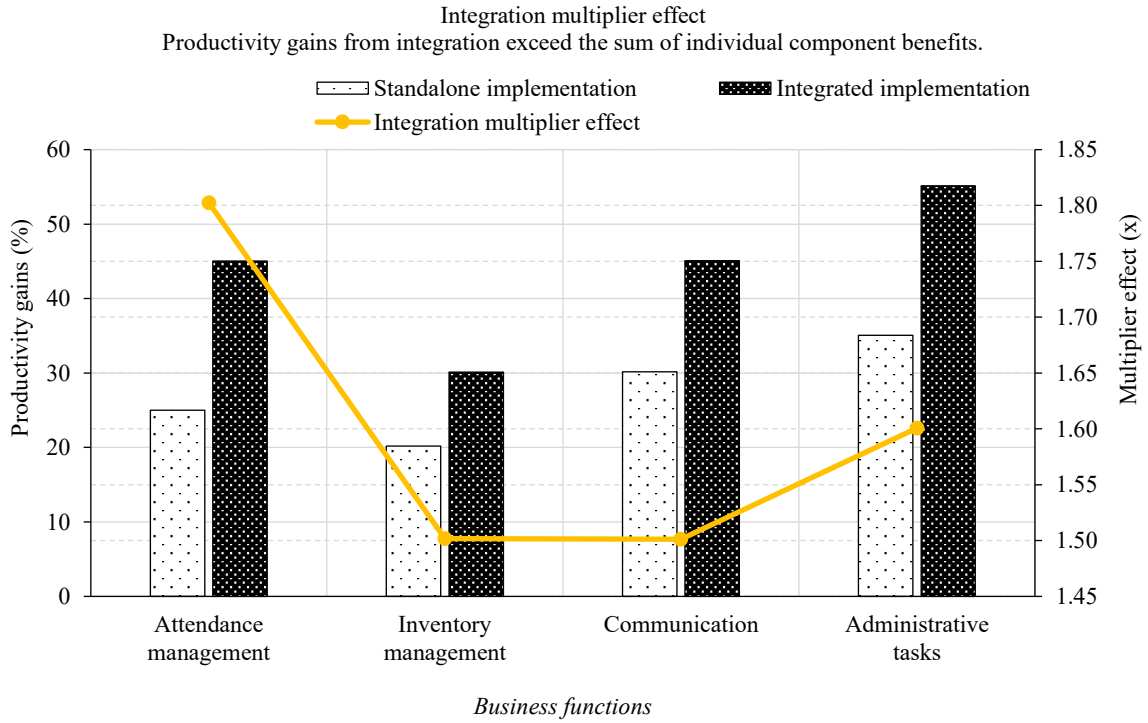

Figure 3. Comparison of standalone versus integrated implementation productivity gains.

Contextual Factors Affecting Productivity

Our sensitivity analysis identified several organizational and environmental factors that would likely moderate productivity improvements:

1. *Prior digital maturity:* Organizations with higher pre-implementation digital maturity would likely show faster adoption but smaller percentage improvements compared to organizations with limited prior digital experience.
2. *Internet connectivity:* Reliable internet infrastructure would enable approximately 20–25% higher productivity gains from real-time features compared to environments with intermittent connectivity.
3. *Leadership engagement:* Active leadership championing could potentially increase adoption rates by 30–35% and productivity improvements by 25–30% compared to limited leadership involvement.
4. *Age demographics:* Workforces with younger average age would likely demonstrate faster adoption curves, though long-term productivity gains would eventually converge across age groups.
5. *Implementation approach:* Phased implementation with clear training programs could potentially yield 25–35% higher initial productivity gains compared to rapid, full-system deployment.

These contextual factors highlight the importance of implementation strategy and organizational readiness in maximizing productivity benefits from integrated digital tools.

DISCUSSION

Integration as a Productivity Multiplier

Our models suggest that integration across business functions serves as a productivity multiplier rather than simply an aggregator of individual function improvements. The potential productivity gains in integrated workflows substantially exceed the combined benefits of individual function improvements, suggesting emergent benefits from integration itself. This finding extends previous work by Li *et al*. on integration benefits by identifying specific mechanisms through which integration could enhance productivity in SME contexts [12]:

1. *Reduced context switching:* The unified interface eliminates productivity losses from toggling between different systems and cognitive frameworks.
2. *Information flow acceleration:* Integrated systems eliminate manual data transfer between functions, removing both time delays and error opportunities.
3. *Process boundary elimination:* Traditional functional boundaries that created approval bottlenecks are removed through unified workflows.
4. *Decision support enhancement:* Integrated data provides more comprehensive decision context, improving both decision speed and quality.

These mechanisms operate synergistically to create productivity impacts beyond the sum of individual function improvements, supporting the concept of integration as a distinct productivity driver rather than merely a convenience factor.

Role Differentiation in Productivity Benefits

The pronounced variation in potential productivity impacts across organizational roles challenges simplistic views of digital transformation benefits. Our finding that middle management would likely experience the largest time savings contradicts assumptions that operational staff would be the primary beneficiaries of digitization.

This pattern can be understood through the lens of information processing theory [31], which positions middle management as critical information nodes responsible for coordinating across organizational boundaries. Integrated systems effectively automate much of this coordination function, explaining the outsized benefits for this group.

The finding also aligns with the work of Burton *et al*. on digital transformation's impact on organizational structure, which found that integrated systems often flatten organizational hierarchies by

reducing the coordination burden previously managed by middle layers [32]. However, our analysis indicates that rather than making middle management redundant, this reduction in coordination workload would allow refocusing on higher-value activities like employee development and process improvement.

Cultural Adaptation and Productivity Friction

Our analysis suggests that cultural adaptation could substantially impact productivity outcomes. Systems designed specifically for Indian business contexts through features like appropriate date formats, terminology, and workflow patterns could reduce what might be termed "productivity friction", the cognitive and practical barriers that arise when system design conflicts with established working patterns.

This concept of productivity friction provides a useful framework for understanding why seemingly minor adaptation factors can have outsized productivity impacts. Each misalignment creates micro-frictions that, while individually small, compound across multiple users and interactions to create significant efficiency drags.

Theoretical Implications

Our findings have several implications for theories of digital transformation and productivity in SME contexts:

1. *First,* they support an ecological view of digital productivity, where benefits emerge from the interaction between technical systems, organizational structures, and cultural contexts rather than from technology implementation alone. This view extends socio-technical systems theory by emphasizing the cultural dimension as equally important to social and technical factors.
2. *Second,* the results challenge stage-based models of digital transformation that position integration as an advanced stage following function-specific digitization. For resource-constrained SMEs, our findings suggest that integrated approaches may be more productive initial strategies, contradicting assumptions that organizations must progress through siloed digital implementations before integration.
3. *Third,* the productivity multiplier effect of integration supports platform theories of digital transformation that emphasize interface standardization and data interoperability as fundamental productivity drivers rather than secondary conveniences [33].

Practical Implications

For SME leaders considering digital transformation initiatives, our analysis offers several practical implications:

1. *Integration priority:* Organizations should prioritize integration from the outset rather than planning to connect standalone systems later. The productivity multiplier effect of integration suggests higher returns from integrated approaches even when individual modules have fewer features than specialized alternatives.
2. *Role-based implementation:* Implementation strategies should recognize and address differential impacts across organizational roles. Middle management may require specific attention as both primary beneficiaries and potential adoption champions.
3. *Cultural adaptation:* Investments in adapting systems to local business contexts likely yield substantial returns through reduced productivity friction. This adaptation extends beyond surface elements to include workflow patterns and organizational assumptions.
4. *Process redesign:* Maximum productivity benefits come not from digitizing existing processes but from redesigning workflows to leverage integration capabilities. Organizations should anticipate and plan for business process changes alongside technical implementation.
5. *Connectivity planning:* In environments with limited connectivity, implementation should prioritize offline capabilities and synchronization efficiency to maintain productivity benefits despite infrastructure constraints.

LIMITATIONS AND FUTURE RESEARCH

This article has several limitations that should be acknowledged. First, the simulation-based approach, while allowing systematic exploration of relationships, cannot fully capture the complexity of real-world implementations. The productivity estimates represent theoretical potentials rather than guaranteed outcomes.

Second, the models assume rational actor behaviour and do not fully account for resistance to change, skill development curves, and other human factors that influence actual productivity outcomes. These factors would likely reduce realized benefits below theoretical maximums, particularly in early implementation phases.

Third, while based on literature on Indian SMEs, the simulations may not capture the full diversity of contexts, practices, and needs across this heterogeneous sector. Regional variations, industry-specific factors, and individual organizational culture would all influence actual outcomes.

Future research could address these limitations through several approaches:

1. *Empirical validation:* Field studies of actual integrated system implementations in Indian SMEs would provide valuable validation of the proposed mechanisms and productivity impacts.
2. *Longitudinal analysis:* Studies tracking productivity changes over extended periods would reveal how benefits evolve beyond initial implementation and how organizations adapt processes to leverage integration capabilities.
3. *Comparative analysis:* Research comparing productivity outcomes across different integration architectures would help identify optimal approaches for specific organizational contexts.
4. *Human factors research:* Studies focusing specifically on user adaptation, resistance, and skill development would provide better understanding of the gap between theoretical and realized productivity benefits.
5. *Industry-specific analysis:* Detailed studies of integration impacts in specific SME sectors would reveal how industry characteristics moderate productivity outcomes.

CONCLUSION

This article has developed a theoretical framework for understanding how integrated digital management systems could enhance workforce productivity in Indian SMEs. Through simulation-based analysis using the WorkWiz system as a reference architecture, we identified potential productivity improvements across attendance management, inventory control, communication, and administrative functions.

The findings suggest that integration across business functions potentially serves as a productivity multiplier through reduced context switching, accelerated information flow, process boundary elimination, and enhanced decision support. These benefits would likely manifest differently across organizational roles, with middle management potentially experiencing the largest direct time savings.

The research contributes to understanding productivity dynamics in SME digital transformation by identifying specific mechanisms through which integration enhances efficiency beyond the sum of individual function improvements. It also highlights the importance of cultural adaptation in reducing "productivity friction" and maximizing benefits.

For SME leaders, the findings suggest prioritizing integrated approaches from the outset, adapting systems to local business contexts, redesigning processes to leverage integration capabilities, and recognizing differential impacts across organizational roles. These strategies may help maximize productivity benefits from digital transformation initiatives despite the resource constraints typical in SME environments.

REFERENCES

1. OECD. OECD SME and entrepreneurship outlook 2019. Organisation for Economic Co-operation and Development OECD; 2019.
2. Bhavan U. Ministry of Micro, Small and Medium Enterprises. Chemistry. 2018; 2: 12–985.
3. Soumitra Dutta, Rafael Escalona Reynoso, Sacha Wunsch-Vincent, Lorena Rivera León, Cashelle Hardman. Global Innovation Index GI. Creating Healthy Lives–The Future of Medical Innovation. Cornell University, INSEAD, WIPO. 2019.
4. Ghobakhloo M, Iranmanesh M. Digital transformation success under Industry 4.0: a strategic guideline for manufacturing SMEs. J Manuf Technol Manag. 2021 Oct 20; 32(8): 1533–56.
5. Moeuf A, Pellerin R, Lamouri S, Tamayo-Giraldo S, Barbaray R. The industrial management of SMEs in the era of Industry 4.0. Int J Prod Res. 2018 Feb 1; 56(3): 1118–36.
6. Kumar N, Rose RC, D'Silva JL. Predictors of technology deployment among Malaysian teachers. Am J Appl Sci. 2008 Sep 1; 5(9): 1127–34.
7. Matt C, Hess T, Benlian A. Digital transformation strategies. Bus Inf Syst Eng. 2015 Oct; 57: 339–43.
8. Bresciani S, Ferraris A, Romano M, Santoro G. Building a digital transformation strategy. In Digital transformation management for agile organizations: A compass to sail the digital world. England: Emerald Publishing Limited; 2021 Jun 10; 5–27.
9. Brynjolfsson E, McAfee A. The second machine age: Work, progress, and prosperity in a time of brilliant technologies. New York City: WW Norton & company; 2014 Jan 20.
10. Garbellano S, Da Veiga MD. Dynamic capabilities in Italian leading SMEs adopting industry 4.0. Meas Bus Excell. 2019 Nov 21; 23(4): 472–83.
11. Neirotti P, Raguseo E, Paolucci E. How SMEs develop ICT-based capabilities in response to their environment: Past evidence and implications for the uptake of the new ICT paradigm. J Enterp Inf Manag. 2018 Feb 12; 31(1): 10–37.
12. Li M, Porter AL, Suominen A. Insights into relationships between disruptive technology/innovation and emerging technology: A bibliometric perspective. Technol Forecast Soc Change. 2018 Apr 1; 129: 285–96.
13. Malhotra R, Temponi C. Critical decisions for ERP integration: Small business issues. Int J Inf Manag. 2010 Feb 1; 30(1): 28–37.
14. Zach O, Munkvold BE, Olsen DH. ERP system implementation in SMEs: exploring the influences of the SME context. Enterp Inf Syst. 2014 Mar 4; 8(2): 309–35.
15. Kergroach S, Bianchini MM. The digital transformation of SMEs. OECD Publishing; Paris, France. 2021 Feb.
16. Schumacher EF. Small is beautiful: A study of economics as if people mattered. Random House; Manhattan, New York Cit. 2011 May 31.
17. Khazanchi D. Information technology (IT) appropriateness: The contingency theory of "fit" and IT implementation in small and medium enterprises. J Comput Inf Syst. 2005 Mar 1; 45(3): 88–95.
18. Papadopoulos T, Baltas KN, Balta ME. The use of digital technologies by small and medium enterprises during COVID-19: Implications for theory and practice. Int J Inf Manag. 2020 Dec 1; 55: 102192.
19. Drucker PF. Knowledge-worker productivity: The biggest challenge. Calif Manag Rev. 1999 Jan; 41(2): 79–94.
20. Colteryahn K, Davis P. The Balanced Scorecard: Does It Answer the Tough Questions? Handbook of Business Strategy. 2000 Jan 1; 1(1): 259–63.
21. Tangen S. Demystifying productivity and performance. Int J Product Perform Manag. 2005 Jan 1; 54(1): 34–46.
22. Rantanen H. Internal obstacles restraining productivity improvement in small Finnish industrial enterprises. Int J Prod Econ. 2001 Jan 7; 69(1): 85–91.
23. Kraus S, Durst S, Ferreira JJ, Veiga P, Kailer N, Weinmann A. Digital transformation in business and management research: An overview of the current status quo. Int J Inf Manag. 2022 Apr 1; 63: 102466.

24. Davenport TH. Process innovation: reengineering work through information technology. USA: Harvard business press; 1993 Feb 24.
25. Mathieson K, Peacock E, Chin WW. Extending the technology acceptance model: the influence of perceived user resources. ACM SIGMIS Database: the DATABASE for Advances in Information Systems. 2001 Jul 1; 32(3): 86–112.
26. Cane S, McCarthy R. Analyzing the factors that affect information systems use: a task-technology fit meta-analysis. J Comput Inf Syst. 2009 Sep 1; 50(1): 108–23.
27. Martin JN. Systems engineering guidebook: A process for developing systems and products. CRC press; Florida, United States. 2020 Apr 30.
28. Cooper RB, Zmud RW. Information technology implementation research: a technological diffusion approach. Manag Sci. 1990 Feb; 36(2): 123–39.
29. Eunni RV, Brush CG, Kasuganti RR. SMEs in emerging markets–an overview. Int J Emerg Mark. 2007 Apr 17; 2(2).
30. Kale PT, Banwait SS, Laroiya SC. Enterprise Resource Planning implementation in Indian SMEs: issues and challenges. National Institute of Technical Teachers' Training and Research. 2007 Jan; 3: 242–8.
31. Clay Dibrell C, Miller TR. Organization design: the continuing influence of information technology. Manag Decis. 2002 Aug 1; 40(6): 620–7.
32. Burton RM, Obel B. The science of organizational design: fit between structure and coordination. J Organ Des. 2018 Dec; 7(1): 1–3.
33. Kowalski T, Parker Geoffrey G, van Alstyne Marshall W, Sangeet Paul Choundary. Platform revolution. How networked markets are transforming the economy and how to make them work for you. Studia Medioznawcze. 2017; 68(1): 139–44.

