e-ISSN: 2600 9374

PENERBIT PRESS
UNIVERSITI TEKNOLOGI MARA

Available online at
https://journal.uitm.edu.my/ojs/index.php/JAS

Journal of Administrative Science 23(3) 2026, 34–47

Journal of Administrative Science

Digital Dexterity and Work Efficiency: A Case Study in a Malaysian Tax Advisory Firm

Kausar Nasreen Ahmad Jameel[1], Nurul Husna Hamis[2] & Aida Abdullah[3*]

[1]*Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA (UiTM), Negeri Sembilan, Malaysia, kausar.acin@gmail.com*

[2] *Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA (UiTM), Negeri Sembilan, Malaysia, nurulhusna310503@gmail.com*

[3] *Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA (UiTM), Negeri Sembilan, Malaysia, aida547@uitm.edu.my, 0009-0004-1500-6728*

ARTICLE INFO

Article history:
Received 1 August 2026
Revised 15 September 2026
Accepted 5 October 2026
Online first 30 October 2026
Published 31 October 2026

Keywords:
Work efficiency
Digital dexterity
Self-efficacy
Technology efficacy
Personal innovativeness

DOI:

10.24191/jas.v23i3.13470

ABSTRACT

Work efficiency is increasingly recognized as a vital determinant of resource optimization and organizational sustainability. In today's rapidly changing business environment, employees' capacity to leverage digital technologies significantly influences organizational efficiency, effectiveness, and competitiveness. The effective use of technology relies on digital dexterity, which encompasses three primary individual factors: self-efficacy, technology efficacy, and personal innovativeness. This study employed a quantitative cross-sectional survey design to examine the relationship between digital dexterity and work efficiency. Self-administered online questionnaires were distributed to employees at a private tax advisory firm in Malaysia. A total of 300 valid responses were collected and analyzed using descriptive statistics and multiple linear regression analysis. The findings revealed a high overall level of work efficiency among respondents. Multiple regression results indicated that both self-efficacy ($\beta = .610$, $p < .001$) and technology efficacy ($\beta = .356$, $p < .001$) exerted a statistically significant positive effect on work efficiency. Conversely, personal innovativeness demonstrated a weak, marginally negative relationship ($\beta = -.143$, $p = .052$). These results provide actionable insights for business leaders and human resource practitioners regarding the strategic value of targeted digital training programs. By enhancing employee digital dexterity, organizations can better empower their workforce to meet evolving digital demands, thereby driving higher performance and productivity.

*Corresponding author. *E-mail address : abdullah547@uitm.edu.my*

©UiTM Press, Universiti Teknologi MARA

1. INTRODUCTION

The Work efficiency refers to an individual's or organization's capability to execute tasks and produce intended outcomes while minimizing the waste of time, effort, and material resources. An organization operates efficiently when it satisfies its operational objectives through optimal resource utilization. In contemporary dynamic business environments, enhancing workforce efficiency has become a central strategic priority—particularly within the private service sector, where operational performance pressures and resource constraints are pronounced. Inefficient administrative and operational workflows frequently induce performance gaps, inflated overhead expenditures, and eroded market competitiveness, underscoring the imperative to identify and mitigate efficiency barriers in professional settings (Coronado-Maldonado & Benítez-Márquez, 2023; Ishak et al., 2017).

Understanding the individual drivers of employee productivity is essential for long-term organizational viability. Bolstering employee efficiency plays a central role in optimizing resources, elevating performance metrics, eliminating operational waste, and aligning daily execution with broader strategic goals (Rungsithon, 2024). Conversely, deficits in employee efficiency generate severe negative repercussions for operational trust, service quality, overall job performance, and employee well-being (Alias et al., 2019). Over time, persistent operational inefficiencies threaten organizational survival, diminish corporate reputation, and impose excessive workload burdens on personnel.

These consequences are particularly evident in professional service sectors where procedural precision and rapid delivery are paramount. Maintaining high operational efficiency in knowledge-intensive private firms—such as tax advisory practices—is critical due to market competitiveness and profit-oriented operational models. Service-oriented firms depend heavily on technical precision, timely execution, and efficient resource distribution. Consequently, the adoption of digital tools has transitioned from an optional strategic advantage to an operational necessity. Operational gaps in digital tool utilization lead directly to financial loss, degraded service quality, and client dissatisfaction. Employee efficiency in service-based private firms thus serves as a primary determinant of corporate sustainability (Halimuzzaman, 2022; Rekarti et al., 2025).

To preserve operational effectiveness in technology-rich environments, organizations must address the modern cognitive and technical challenges encountered by knowledge workers. Knowledge workers routinely navigate workplace interruptions, heavy task loads, and persistent digital distractions across multiple communication channels. While these demands have accelerated reliance on digital platforms, many employees continue to struggle with utilizing complex software suites effectively. Persistent workflow bottlenecks—such as redundant procedures, communication lag, and sub-optimal resource deployment—frequently stem from gaps in individual digital adaptability (Ahmed et al., 2022; Akter et al., 2023; SHRM, 2024). Recognizing these competency gaps creates a clear research imperative to investigate how specific dimensions of individual digital capability mitigate workplace inefficiencies.

To address these empirical questions, this study conceptualizes digital dexterity as a primary driver of work efficiency. Digital dexterity represents an individual's capability and inclination to leverage data, technology, and digital workflows to drive administrative outcomes (Montaudon-Tomas et al., 2020). In this study, digital dexterity is operationalized through three core individual dimensions: self-efficacy, technology efficacy, and personal innovativeness. Together, these components capture an employee's

https://doi.org/10.24191/jas.v23i3.13470 ©UiTM Press, Universiti Teknologi MARA

capability and willingness to adapt to digital infrastructure, optimize workflows, and support organizational transformation efforts (Akter et al., 2023).

Accordingly, this study investigates the impact of digital dexterity dimensions on work efficiency within a Malaysian private service firm. Specifically, the objectives of this study are to:

(i) Determine the prevailing level of work efficiency among employees within the targeted service firm.

(ii) Examine the empirical relationships between the individual dimensions of digital dexterity (self-efficacy, technology efficacy, and personal innovativeness) and work efficiency.

(iii) Identify which dimension of digital dexterity exerts the strongest relative influence on work efficiency.

2. LITERATURE REVIEW

2.1 Work Efficiency

Work efficiency involves aligning operational inputs with outputs to maximize value creation while minimizing workflow waste. It reflects an employee's capacity to execute tasks accurately and systematically using minimal time and energy (Shehadeh et al., 2023; Manoharan, 2017). Efficiency yields mutual benefits for employees and organizations by elevating overall productivity without compromising task quality. As modern job roles have transitioned from manual labor to knowledge-based execution, evaluations of employee performance have undergone a parallel conceptual evolution. Modern conceptualizations evaluate efficiency through multidimensional performance lenses. Koopmans et al. (2014) categorized individual work performance into task performance, contextual performance, adaptive performance, and counterproductive work behavior. In digital economies, efficiency demands extend beyond basic task completion to encompass continuous technological adaptation, analytical problem-solving, and digital literacy (O'Sullivan et al., 2019). Empirical evidence confirms that higher digital literacy enables employees to leverage software tools effectively, directly enhancing administrative performance (Bueno et al., 2024; Abas et al., 2019).

2.2 Digital Dexterity and Its Dimensions

Digital dexterity has emerged as a crucial psychological and behavioral antecedent to work efficiency. According to Gartner (2018), digital dexterity reflects an individual's ability and inclination to utilize technology for broader organizational outcomes. Drawing upon established theoretical frameworks, this study measures digital dexterity across three distinct components: self-efficacy, technology efficacy, and personal innovativeness (Ahmed et al., 2022).

Self-Efficacy and Work Efficiency

Self-efficacy refers to an individual's internal belief in their capability to execute the actions required to achieve designated performance goals. In digital work contexts, employees with high self-efficacy exhibit greater persistence, adaptability, and problem-solving capability when facing technological hurdles. Carter et al. (2016) demonstrated that self-efficacy, combined with employee engagement, yields incremental improvements in job performance and operational efficiency. Confident employees

https://doi.org/10.24191/jas.v23i3.13470 ©UiTM Press, Universiti Teknologi MARA

successfully translate technological knowledge into measurable outputs (Sun & Yoon, 2025). In private sector settings, digital self-efficacy empowers workers to utilize complex software confidently, facilitating time management and superior work quality (Lestari et al., 2024). Thus, self-efficacy enhances work efficiency by enabling employees to apply digital skills with confidence and sustain performance under evolving technological demands. Therefore, it is hypothesized that:

H1: There is a significant relationship between self-efficacy and work efficiency.

While self-efficacy is an internal psychological confidence in one's overall capabilities, operational performance necessitates functional proficiency in managing specific digital systems.

Technology Efficacy and Work Efficiency

Technology efficacy denotes an individual's functional ability to utilize technology tools, software applications, and information systems confidently to accomplish task objectives (Davis, 1989). Integrating technical proficiency into daily routines is a critical determinant of administrative success. High technological competence enables routine task automation, facilitates remote collaboration, and strengthens data-driven decision-making. According to Davis's (1989) Technology Acceptance Model (TAM), perceived usefulness and perceived ease of use predict effective system utilization, directly impacting operational efficiency. As service processes incorporate increasingly complex digital infrastructure, employees face an growing need to coordinate tasks through specialized digital tools (Audrin et al., 2024; Rahman et al., 2023). Service firms that emphasize technical competence report higher overall workforce productivity (Sun & Yoon, 2025). Ultimately, technology efficacy relies not merely on system availability, but on employee confidence and functional capability in operating digital platforms. Thus, it is hypothesized that:

H2: There is a significant relationship between technology efficacy and work efficiency.

Aside from understanding existing digital applications, individuals' desire to actively investigate unfamiliar technologies is a third key feature of digital dexterity.

Personal Innovativeness and Work Efficiency

Personal innovativeness is defined as an individual's willingness to experiment with new information technologies (Agarwal & Prasad, 1998). Prior research links personal innovativeness to proactive workplace behavior, creative problem-solving, and adaptive performance (Yi et al., 2006). For example, Shahreki et al. (2025) observed that information system utilization positively influences individual innovation capability, with organizational commitment reinforcing this effect. Innovative personnel are better positioned to experiment with digital tools to streamline administrative processes (Punnitamai et al., 2025). Therefore, personal innovativeness constitutes a vital component of digital dexterity, enabling employees to explore emerging technologies creatively. Accordingly, it is hypothesized that:

H3: There is a significant relationship between personal innovativeness and work efficiency.

https://doi.org/10.24191/jas.v23i3.13470 ©UiTM Press, Universiti Teknologi MARA

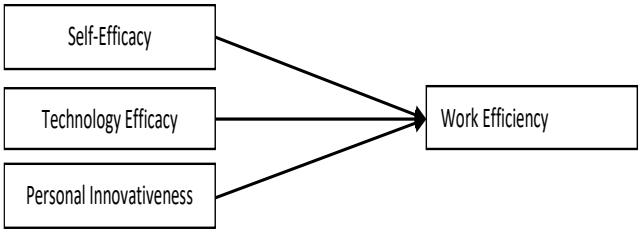


Figure 1: Conceptual Framework Relating Digital Dexterity Dimensions to Work Efficiency.

Source: Authors

Figure 1 depicts the conceptual framework that is directing this inquiry by synthesizing these hypothetical relationships into a unified framework. Work efficiency is posited as the dependent variable, while self-efficacy, technology efficacy and personal innovativeness as the independent variables. Work efficiency refers to the capacity of employees to achieve optimal results with minimal time, effort, or resource wastage. In this framework, self-efficacy, technology efficacy and personal innovativeness are considered key drivers of work efficiency, representing employees' confidence in performing tasks, their capability to use digital tools effectively and their tendency to adopt new ideas and technologies, respectively. This combination of concepts, backed by previous empirical research, will be presumed to be positively related to work efficiency.

The following section describes the quantitative methods used to empirically examine the proposed linkages.

3. RESEARCH METHODOLOGY

3.1 Research Design and Context

To examine the relationship between the dimensions of digital dexterity and work efficiency, this study employed a quantitative, cross-sectional survey design. This empirical approach allowed for the objective measurement of key variables and the statistical testing of hypothesized relationships. The research was positioned within a leading knowledge-intensive tax advisory firm in Malaysia—an environment whose heavy reliance on cloud documentation, automated tax portals, and client-facing digital communication channels provided an optimal setting for evaluating workforce digital dexterity (Park & McShea, 2025; Rely, 2025).

3.2 Population and Sampling

The target population comprised 300 employees (N = 300) at a Malaysian tax advisory firm. Based on sample size determination guidelines by Krejcie and Morgan (1970), a minimum sample of n = 169 was required for statistical validity. Using simple random sampling, self-administered electronic questionnaires were distributed across all operational departments. All 300 employees returned fully completed and verified responses, yielding a 100% response rate that substantially exceeded the minimum statistical threshold.

 ©UiTM Press, Universiti Teknologi MARA

3.3 Research Instruments

The survey instrument was developed using established scale items from previous studies; work efficiency was measured using 5 items adapted from Platania et al. (2023), self-effficacy was measured using 5 items adapted from Lagerveld et al. (2010), technology efficacy was measured using 5 items adapted from Holcomb et al. (2009) and finally, personal innovativeness was measured using 3 items adapted from Solarz and Adamek (2023). All items were evaluated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.4 Data Analysis

The data were processed with IBM SPSS Statistics. Descriptive statistics (means, standard deviations, minimums, and maximums) were used to assess construct levels. Cronbach's alpha (α) was used to determine scale reliability. Pearson correlation and multiple linear regression analyses were conducted to evaluate relationship directions, statistical significance, multicollinearity, and predictive power (β, R2, F).

4. FINDINGS

4.1 Demographic Profile

Table 1. Demographic Characteristics of Respondents (n = 300)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	150	50.0
	Female	150	50.0
Age	18–30 years old	151	50.3
	31–40 years old	140	46.7
	41–50 years old	8	2.7
	51 years old and above	1	0.3
Marital Status	Single	159	53.0
	Married	138	46.0
	Divorced	3	1.0
Education Level	SPM	7	2.3
	Diploma	61	20.3
	Bachelor's Degree	123	41.0
	Master's Degree	60	20.0
	PhD	47	15.7
	Others	2	0.7

Table 1 summarizes the demographic characteristics of the 300 respondents. The sample was balanced across gender (50.0% male, 50.0% female). The majority of respondents were aged 18–30 years (50.3%) or 31–40 years (46.7%). Regarding education, 41.0% held a Bachelor's degree, 20.3% held a Diploma, 20.0% held a Master's degree, and 15.7% held a PhD. All respondents (100%) were Muslim.

4.2 Descriptive Statistics, Scale Reliability, and Correlations

Mean scores were categorized into three operational levels: low (1.00–2.50), medium (2.51–3.50), and high (3.51–5.00). As detailed in Table 2, respondents reported a high overall mean level of work efficiency (M = 4.357). High mean scores were also observed across all independent variables: technology efficacy

https://doi.org/10.24191/jas.v23i3.13470 ©UiTM Press, Universiti Teknologi MARA

(M = 4.273), self-efficacy (M = 4.269), and personal innovativeness (M = 4.201). In Table 2, mean values (M) reflect item-level averages (1–5 scale), whereas standard deviation (*SD*), minimum, and maximum metrics reflect total composite scale scores across constructs. All constructs demonstrated high internal consistency, with Cronbach's alpha (α) coefficients ranging from .860 to .955, well exceeding the acceptable .70 threshold. Pearson correlation coefficients demonstrated significant positive associations between work efficiency and self-efficacy (r = .747, p < .001), technology efficacy (r = .627, p < .001), and personal innovativeness (r = .555, p < .001). Correlation values remained below .85, confirming construct unidimensionality and discriminant validity.

Table 2. Descriptive Statistics, Reliability, and Pearson Correlations (n = 300)

Variable	Item Mean (M)	Composite SD	Min	Max	Cronbach's α	Pearson r
Work Efficiency	4.357	2.59	8	25	.942	1.000
Self-Efficacy	4.269	2.48	15	25	.880	.747**
Technology Efficacy	4.273	2.72	7	25	.955	.627**
Personal Innovativeness	4.201	1.73	5	15	.860	.555**

Note. p < .001. Item Means are interpreted as: 1.00–2.50 = Low; 2.51–3.50 = Medium; 3.51–5.00 = High.

While correlation analysis confirmed positive bivariate relationships, multiple regression analysis was used to test the hypotheses and determine the independent impact of each digital dexterity measure.

4.3 Multiple Regression Analysis

Multiple linear regression was conducted to test the direct predictive effects of digital dexterity dimensions on work efficiency. Diagnostic tests confirmed the absence of multicollinearity: all Variance Inflation Factors (VIF) were well below 10.0 (ranging between 1.814 and 3.972), and Tolerance values exceeded 0.10 (ranging between .252 and .551). The overall regression model was statistically significant (F(3, 296) = 147.752, p < .001), accounting for 59.6% of the variance in work efficiency (R^2 = .600, Adjusted R^2 = .596).

As detailed in Table 3, self-efficacy exerted the strongest positive influence on work efficiency (β = .610, t = 12.309, p < .001). Hypothesis H1 was supported. Technology Efficacy significantly and positively predicted work efficiency (β = .356, t = 4.853, p < .001). Hypothesis H2 was supported. Personal Innovativeness demonstrated a weak, negative relationship with work efficiency (β = -.143, t = -1.954, p = .052). At the conventional significance threshold (p = .050), this relationship was non-significant (p > .050), though it indicates a marginal negative trend. Hypothesis H3 was not supported at the alpha = .050 level.

Table 3. Multiple Regression Predicting Work Efficiency (n = 300)

Variable	Beta (β)	T	Sig. (p)	Tolerance	VIF
Self-Efficacy	.610	12.309	< .001	.551	1.814
Technology Efficacy	.356	4.853	< .001	.252	3.972
Personal Innovativeness	-.143	-1.954	.052	.252	3.962

**Note.* R^2 = .600; Adjusted R^2 = .596; F(3, 296) = 147.752, p < .001.

These statistical results provide clear empirical responses to the research hypotheses. The following discussion situates these statistical patterns in the larger framework of administrative practice and organizational philosophy.

 ©UiTM Press, Universiti Teknologi MARA

5. DISCUSSION

This study evaluated the impact of digital dexterity dimensions on employee work efficiency within a private tax advisory firm. Descriptive findings revealed a high overall level of perceived work efficiency (M = 4.357). This strong performance was primarily driven by high self-reported goal orientation (M = 4.37), individual task execution (M = 4.37), and effective workload prioritization (M = 4.36). Work efficiency directly enhances employees' job autonomy and skill variety enabling them to perform more complex tasks, increased work specialization and technological competencies (Verma & Singh, 2022). Elevated scores were similarly observed across all three dimensions of digital dexterity: technology efficacy (M = 4.273), self-efficacy (M = 4.269), and personal innovativeness (M = 4.201). These findings align with prior empirical research demonstrating that knowledge-intensive service personnel exhibit strong digital readiness due to their routine engagement with cloud applications and specialized enterprise platforms (Van Laar et al., 2020).

Moving beyond descriptive baselines, the explanatory power of the regression model underscores the operational importance of specific digital competencies. The model accounted for nearly 60% of the total variance in work efficiency ($R^2 = .596$), confirming digital dexterity as a vital determinant of workforce productivity in professional service environments. Among the predictors, self-efficacy emerged as the primary driver ($\beta = .610$, $t = 12.309$, $p < .001$). An employee's self-efficacy reflects a fundamental conviction in their capacity to execute tasks using personal knowledge and technical skills. This motivational construct fosters psychological resilience and adaptability, encouraging workers to undertake complex assignments and persevere through technological challenges (Bueno et al., 2025). Consequently, employees with strong digital self-efficacy maintain high motivation during technical setbacks and navigate new digital platforms efficiently. Conversely, those lacking confidence tend to hesitate when adopting unfamiliar systems, prolonging task completion and impairing overall efficiency (Kanapathipillai et al., 2021). From a practical standpoint, organizations can cultivate this capability by clarifying job expectations and designing structured, supportive digital workflows (Borowiecki et al., 2021).

Beyond internal psychological beliefs, practical technical mastery played a pivotal role in driving daily task execution, with technology efficacy exerting a statistically significant positive influence on work efficiency ($\beta = .356$, $t = 4.853$, $p < .001$). Personnel possessing strong functional competence in digital systems are better positioned to perform their duties accurately and effectively. In conservative, precision-oriented environments such as tax advisory practices, this technical mastery is essential. A key dimension of technology efficacy is operational self-discipline, which reflects an employee's ability to apply digital tools systematically, adhere to established procedures, and maintain focus on ICT-based assignments. Consequently, employees with higher technology efficacy demonstrate greater task persistence, flexible adaptability to new platforms, and lower error rates—enabling them to complete assignments punctually and efficiently. In contrast, workers struggling with digital platforms frequently incur higher error rates and require closer administrative oversight, ultimately reducing overall workflow efficiency. These findings align with recent empirical research confirming that technology efficacy significantly enhances individual and organizational performance. To cultivate this capability, organizations should prioritize practical, hands-on training programs centered on core technological systems (Bueno et al., 2025; Audrin et al., 2024).

Conversely, the outcome regarding personal innovativeness highlights a critical operational nuance concerning unstructured experimentation in regulated work environments. Specifically, personal

https://doi.org/10.24191/jas.v23i3.13470 ©UiTM Press, Universiti Teknologi MARA

innovativeness displayed a weak, marginally negative association with work efficiency (β = -.143, t = -1.954, p = .052). This finding contrasts with prior literature suggesting that employees who actively experiment with new technologies are better equipped to optimize workflows and adapt to change. However, recent studies indicate that personal innovativeness may exert a limited direct impact on adaptability within standardized operating contexts (Solarz & Adamek, 2023). In highly regulated service settings such as tax consulting, excessive experimentation or non-standardized digital practices can temporarily disrupt established workflows, introducing operational friction. While personal innovativeness remains essential for long-term organizational transformation, standardized execution and task self-efficacy exert a more immediate positive impact on daily task efficiency. Nevertheless, organizations should continue to cultivate innovative mindsets through structured process-improvement initiatives, balancing creative problem-solving with administrative compliance. Bridging these theoretical insights with professional practice highlights key strategic implications for management and administration (Borowiecki et al., 2021).

6. IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH

This study offers actionable contributions for corporate management and human resource strategists. First, given that self-efficacy and technology efficacy predominantly drive efficiency outcomes, organizations should prioritize hands-on, practical digital training programs over purely conceptual instruction. Second, tax advisory firms must establish standardized digital operating procedures that build employee confidence while reducing operational variances. Methodologically, this study categorizes empirical evidence across three distinct dimensions; self-efficacy, technology efficacy, and personal innovativeness, thereby integrating constructs of digital dexterity and work efficiency within a unified framework. Furthermore, collecting survey data across multiple operational departments ensures a comprehensive perspective on organizational practices, capturing insights across administrative, technical, and professional roles. Finally, the cross-sectional design and multiple regression modeling provide a robust analytical framework to evaluate the significance, magnitude, and predictive capacity of digital dexterity dimensions on work efficiency. Academically, this study addresses an important literature gap by providing empirical evidence regarding digital dexterity dynamics within professional service firms in emerging markets (Alhumaid, 2024).

Nevertheless, several limitations must be acknowledged when interpreting these empirical findings. Primarily, the research focused on the relationship between digital dexterity and work efficiency without accounting for broader organizational contexts, such as corporate culture, leadership style, or team cohesion. Additionally, the conceptual framework examined three specific dimensions of digital dexterity—self-efficacy, technology efficacy, and personal innovativeness. Consequently, other relevant factors, such as digital infrastructure quality and employee engagement, were not evaluated. Furthermore, because data were collected from a single tax advisory firm, caution is warranted when generalizing these findings to other organizations or industries, as operational structures and technology utilization vary widely. Lastly, reliance on a single cross-sectional survey design restricts measurement variance over time and introduces potential common method or response biases.

To address these limitations, future research should employ longitudinal designs to observe temporal shifts in digital dexterity and work efficiency over time. Additionally, adopting a mixed-methods approach that integrates quantitative survey data with qualitative interviews would capture subtle workplace nuances

https://doi.org/10.24191/jas.v23i3.13470 ©UiTM Press, Universiti Teknologi MARA

that standardized survey instruments alone cannot fully evaluate. Such designs could validate these empirical findings and enhance their generalizability across diverse organizational settings. Future studies should also explore supplementary constructs—such as digital leadership, organizational culture, employee participation, and specialized training programs—as potential mediating or moderating variables (Coronado-Maldonado & Benítez-Márquez, 2023; Rekarti et al., 2025). Evidently, factors beyond individual digital capabilities significantly influence workforce productivity. Even digitally skilled employees require supportive organizational structures, well-designed workflows, and adequate operational resources to achieve optimal performance. Nevertheless, this study highlights self-efficacy, technology efficacy, and personal innovativeness as actionable dimensions of digital dexterity that organizations can systematically cultivate through targeted human resource development initiatives.

7. CONCLUSION

In conclusion, the research objectives were successfully fulfilled by demonstrating that digital dexterity is a vital determinant of work efficiency among employees at Salihin Tax Advisory Sdn. Bhd. Through descriptive statistics, Pearson correlation analysis, and multiple linear regression, the empirical findings confirmed that overall digital dexterity is associated with work efficiency among firm personnel. Furthermore, the analysis revealed that the construct's core components—self-efficacy and technology efficacy,—are positively correlated with employee efficiency outcomes, except for personal innovativeness with negative relationship. Among these dimensions, self-efficacy emerged as the strongest predictor of work efficiency within a precision-oriented professional service environment. Holistically, these findings demonstrate that digital dexterity represents more than a supplementary technical skill set; it is a fundamental driver of workforce performance in the private sector. This underlines the imperative for organizations to invest systematically in targeted digital training initiatives to maintain operational efficiency within rapidly evolving technological workplace environments.

8. ACKNOWLEDGEMENTS/FUNDING

The authors thank all participants for their support during data collection and referees for their insights and feedback, which made this publication successful. The authors would like also to acknowledge the support of Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA (UiTM), Cawangan Negeri Sembilan, Kampus Seremban 3 for providing the facilities and support on this research. This research received no external grant from funding agencies in the public, commercial, or non-profit sectors.

9. CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

10. AUTHORS' CONTRIBUTIONS

Kausar Nasreen Ahmad Jameel and Nurul Husna Hamis Anis Muneerah Shaiful Bahari: Conceptualisation, methodology, formal analysis, investigation and writing-original draft; **Aida Abdullah**: Conceptualisation, supervision, writing- review and editing, and validation.

 ©UiTM Press, Universiti Teknologi MARA

11. DECLARATION OF GENERATIVE AI IN THE WRITING PROCESS

During the preparation of this work, the author(s) used Grammarly and Gemini in order to improve readability and grammar check. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

12. DATA AVAILABILITY/SUPPLEMENTARY MATERIALS

All data generated or analysed during this study are included in this published article [and its supplementary information files].

13. ETHICS STATEMENT

Ethical approval was obtained from the Research Ethics Committee, Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA (UiTM) on 10 October 2025 (Approval Number: FERC/-2/2025 (ADS544).

14. REFERENCES

Abas, M. K. M., Yahaya, R. A., & Din, M. S. F. (2019). Digital literacy and its relationship with employee performance in the 4IR. Journal of International Business Economics and Entrepreneurship, 4(2), 29–37. https://doi.org/10.24191/jibe.v4i2.14312

Agarwal, R., & Prasad, J. (1998). A conceptual and operational definition of personal innovativeness in the domain of information technology. Information Systems Research, 9(2), 204–215. https://doi.org/10.1287/isre.9.2.204

Ahmed, W., Hizam, S. M., & Sentosa, I. (2022). Digital dexterity: Employee as consumer approach towards organizational success. Human Resource Development International, 25(5), 631–641. https://doi.org/10.1080/13678868.2020.1835107

Akter, H., Ahmed, W., Sentosa, I., Hizam, S. M., Sharin, F. H., & Mina, I. (2023, September). Building a better future workforce: Digital dexterity and psychological empowerment. In 2023 3rd International Conference on Computing and Information Technology (ICCIT) (pp. 626-632). IEEE.

Alhumaid, F., & Elamir, E. (2024, October). Skill Factor as a Key Indicator of Digital Dexterity in Emerging Countries: Cluster Analysis Approach. In 2024 5th International Conference on Data Analytics for Business and Industry (ICDABI) (pp. 68-73). IEEE.

Alias, N. E., Sehat, N. S., Othman, R., Marmaya, N. H., & Koe, W.-L. (2019). Determinants of job stress in affecting employees' life: A study on the Malaysian manufacturing sector. International Journal of Academic Research in Business and Social Sciences, 9(7), 614–627. https://doi.org/10.6007/IJARBSS/v9-i7/6224

Audrin, B., Audrin, C., & Salamin, X. (2024). Digital skills at work – Conceptual development and empirical validation of a measurement scale. Technological Forecasting and Social Change, 202, 123279. https://doi.org/10.1016/j.techfore.2024.123279

Borowiecki, M., Pareliussen, J., Glocker, D., & Kim, E. J. (2021). The impact of digitalisation on productivity: Firm-level evidence from the Netherlands (OECD Economics Department Working Papers No. 1680). OECD Publishing. https://doi.org/10.1787/e800ee1d-en

 ©UiTM Press, Universiti Teknologi MARA

Bueno, L. A., Sigahi, T. F., Rampasso, I. S., Leal Filho, W., & Anholon, R. (2024). Impacts of digitization on operational efficiency in the banking sector: Thematic analysis and research agenda proposal. International Journal of Information Management Data Insights, 4(1), 100230.

Carter, W. R., Nesbit, P. L., Badham, R. J., Parker, S. K., & Sung, L. (2016). The effects of employee engagement and self-efficacy on job performance: A longitudinal field study. The International Journal of Human Resource Management, 29(17), 2483–2502. https://doi.org/10.1080/09585192.2016.1244096

Coronado-Maldonado, I., & Benítez-Márquez, M. D. (2023). Emotional intelligence, leadership, and work teams: A hybrid literature review. Heliyon, 9(10).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340. https://doi.org/10.2307/249008

Gartner. (2018, June 20). Gartner says too few organizations have the digital dexterity to adopt new ways of work solutions [Press release]. https://www.gartner.com/en/newsroom/press-releases/2018-06-20-gartner-says-too-few-organizations-have-the-digital-dexterity-to-adopt-new-ways-of-work-solutions

Halimuzzaman, M. (2022). Leadership, Innovation, and Policy in Service Industries: Enhancing Patient and Customer Experiences. Business and Social Sciences, 1(1), 1-9.

Holcomb, T. R., Ireland, R. D., Holmes, R. M., Jr., & Hitt, M. A. (2009). Architecture of entrepreneurial learning: Exploring the link among heuristics, knowledge, and action. Entrepreneurship Theory and Practice, 33(1), 167–192. https://doi.org/10.1111/j.1540-6520.2008.00285.x

Ishak, N. A., Mohtar, N. M., Adin, I. S., & Haron, H. (2017). Strengthening employee performance: A case study of Maybank Berhad. International Journal of Academic Research in Business and Social Sciences, 7(11), 35–48. https://doi.org/10.6007/ijarbss/v7-i11/3579

Kanapathipillai, K., Shaari, A. B., & Mahbob, N. N. (2021). The influence of self-efficacy on job performance of employees in the online retail sector in Malaysia: The mediating effect of innovative behaviour. European Journal of Human Resource Management Studies, 5(3), 45–62. https://doi.org/10.46827/ejhrms.v5i3.1188

Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., De Vet, H. C., & Van Der Beek, A. J. (2014). Measuring individual work performance: Identifying and selecting indicators. Work, 48(2), 229–238. https://doi.org/10.3233/wor-131659

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610. https://doi.org/10.1177/001316447003000308

Lagerveld, S. E., Blonk, R. W., Brenninkmeijer, V., & Schaufeli, W. B. (2010). Return to work among employees with mental health problems: Development and validation of a self-efficacy questionnaire. Work & Stress, 24(4), 359–375. https://doi.org/10.1080/02678373.2010.532644

Lestari, S., Watini, S., & Rose, D. E. (2024). Impact of self-efficacy and work discipline on employee performance in sociopreneur initiatives. Aptisi Transactions on Technopreneurship (ATT), 6(2), 270-284.

Manoharan, E. (2017). Principal factors impacting labor productivity in Malaysian construction industry: A survey of constraints on Klang Valley non-residential projects. International Journal of Science and Engineering Investigations, 6(71), 9–15.

Montaudon-Tomas, C. M., Pinto-López, I. N., & Yáñez-Moneda, A. L. (2020). Digital dexterity for the future of work. EDULEARN20 Proceedings, 1, 6379–6387. https://doi.org/10.21125/edulearn.2020.1680

O'Sullivan, C., Slocombe, A., McKenzie, C., & Salisbury, F. (2019). Digital dexterity: A sustainable model for building

 ©UiTM Press, Universiti Teknologi MARA

essential skills for the future workforce. Purdue e-Pubs. https://docs.lib.purdue.edu/iatul/2019/bp/5

Park, Y., & McShea, M. F. (2025). Understanding the Roles Tax Advisory Professionals Play in the Digitalization of Tax Administration: Mechanisms of Influence in Global Reform Contexts. Digital Government: Research and Practice, 6(4), 1-25.

Platania, S., Morando, M., Gruttadauria, S. V., & Koopmans, L. (2023). The Individual Work Performance Questionnaire: Psychometric properties of the Italian version. European Journal of Investigation in Health, Psychology and Education, 14(1), 49–63. https://doi.org/10.3390/ejihpe14010004

Punnitamai, W., Pokao, S., & Charoensuk, K. (2025). Interaction Effects of Employee Innovativeness Factors on Work Performance of Academic Support Personal in Thai Higher Education Institutions. Journal of Public Administration, Public Affairs, and Management, 23(2), 27-64.

Rahman, M. K., Bhuiyan, M. A., Mainul Hossain, M., & Sifa, R. (2023). Impact of technology self-efficacy on online learning effectiveness during the COVID-19 pandemic. Kybernetes, 52(7), 2395-2415.

Rekarti, E., Yusriani, S., Utomo, K. W., Patiro, S. P. S., Riftana, F. D. C., & Yanti, P. (2025). How Do Digitalization, Self-Efficacy, and Family Support Influence Perceived Work-Life Balance Among Indonesia's Service Sector Employees?. IJORER: International Journal of Recent Educational Research, 6(5), 1384-1397.

Rely, G. (2025). The role of tax consultants and corporate governance in improving tax compliance of manufacturing firms. Jurnal Ilmiah Akuntansi Kesatuan, 13(2), 373-384.

Rungsithon, P. (2024). Optimizing resources: Techniques for enhancing organizational efficiency. Journal of Academy of Business and Emerging Markets, 4(2), 15–28.

Shahreki, J., Ghanad, A., Kaur, D., Altounjy, R., & Abdullahi, M. S. (2025). The effect of HRIS on innovation capability of HR employees and the moderating role of affective commitment. International Journal of Multidisciplinary Research and Analysis, 8(1), 12–25. https://doi.org/10.47191/ijmra/v8-i01-02

Shehadeh, M., Almohtaseb, A., Aldehayyat, J., & Abu-AlSondos, I. A. (2023). Digital transformation and competitive advantage in the service sector: a moderated-mediation model. Sustainability, 15(3), 2077.

SHRM. (2024). 2023–2024 SHRM state of the workplace report. Society for Human Resource Management. https://theaawa.org/wp-content/uploads/2024/02/2023-2024-State-of-the-Workplace-Report.pdf

Solarz, M., & Adamek, J. (2023). Trust and personal innovativeness as the prerequisites for using digital lending services offered by FinTech lenders. Annales Universitatis Mariae Curie-Skłodowska, Sectio H – Oeconomia, 57(1), 197–218. https://doi.org/10.17951/h.2023.57.1.197-218

Sun, T., & Yoon, M. (2025). The impact of digital transformation on faculty performance in higher education: the mediating role of digital self-efficacy and the moderating role of task-technology fit. Frontiers in Psychology, 16, 1693375.

Van Laar, E., Van Deursen, A. J. A. M., Van Dijk, J. A. G. M., & De Haan, J. (2020). Determinants of 21st-century skills and 21st-century digital skills for workers: A systematic literature review. SAGE Open, 10(1), 1–14. https://doi.org/10.1177/2158244019900176

Verma, S., & Singh, V. (2022). Impact of artificial intelligence-enabled job characteristics and perceived substitution crisis on innovative work behavior of employees from high-tech firms. Computers in Human Behavior, 131, 107215.

Yi, M. Y., Fiedler, K. D., & Park, J. S. (2006). Understanding the role of individual innovativeness in the acceptance of IT-based innovations: Comparative analyses of models and measures. Decision Sciences, 37(3), 393–426. https://doi.org/10.1111/j.1540-5915.2006.00125.x

 ©UiTM Press, Universiti Teknologi MARA

About the Authors

Kausar Nasreen Ahmad Jameel holds a Bachelor Degree of Administrative Science, and her research interest related to human resource management and organisational behaviour. She can be reached at kausar.acin@gmail.com.

Nurul Husna Hamis holds a Bachelor Degree of Administrative Science, and her research interest related to human resource management and organisational behaviour. She can be reached at nurulhusna310503@gmail.com.

Aida Abdullah is a Senior Lecturer at the Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA (UiTM), Negeri Sembilan, Malaysia. She holds a Ph.D., a Master of Public Administration, a Bachelor of Corporate Administration (Hons.), and a Diploma in Public Administration. Her research interests and publications centre on public administration, organizational behavior, and human resource management. She can be reached at aida547@uitm.edu.my.



© 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY-NC-ND) license (http://creativecommons.org/licenses/by/4.0/).