Impact of Computerized Payroll Systems on Employee Productivity: A Case Study of Babcock University Staff School

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Abstract: This paper examines the impact of computerized payroll systems on employee productivity, focusing on Babcock University Staff School. Drawing upon historical context, contemporary typologies, and challenges in adoption, it explores the relationship between these systems and productivity, satisfaction, and motivation. Using a cross-sectional survey design and statistical analysis, the study reveals a significant positive correlation between computerized payroll systems and employee outcomes. Recommendations include investing in training, considering organizational context, and prioritizing continuous improvement. Future research should explore long-term effects, user experience, organizational culture, emerging technologies, and comparative studies on different payroll systems.

Keywords: Computerized Payroll, Productivity, Motivation, Satisfaction, Training, Babcock University Staff School

I. Introduction

1.1 Background of Study

Payroll encompasses the procedural frameworks employed to reimburse employees for their contributions within an organizational context, adhering to stipulated terms of employment. Integral to the employer-employee relationship, payroll administration stands as a principal motivation for seeking employment, epitomizing the expectation of equitable and punctual compensation for rendered services. This ethos finds resonance in ethical doctrines, such as the biblical injunction to administer just and equitable rewards to laborers (KJV, Colossians 4:1).

The historical trajectory of payroll administration traces back centuries, where manual bookkeeping and accounting principles were employed to manage business transactions and employee compensation, albeit susceptible to error and delay. The advent of computer technology heralded a transformative shift, albeit persisting alongside contemporary manual systems in select contexts.

Varied organizational contexts yield diverse manifestations of payroll records, encompassing a spectrum of employee identifiers, compensation elements, and statutory deductions. Reflective of organizational policy, payroll frequency ranges from bi-monthly to monthly disbursements, with year-end bonuses being a customary practice in some settings.

Contemporary payroll systems exhibit a diverse array of typologies, comprising do-it-yourself (DIY) models, payroll software applications, and outsourced payroll services. DIY payroll entails manual processing with rudimentary tools, often favored by small-scale enterprises for its cost-effectiveness, despite inherent error-prone tendencies. Conversely, payroll software automates administrative functions, aligning with organizational policies and optimizing accuracy and compliance. While its implementation demands training and incurs costs, the resultant operational efficiencies benefit organizations of all scales. Outsourced payroll services, delegated to third-party vendors, alleviate administrative burdens, allowing organizations to focus on core competencies. However, cost considerations and relinquished control constitute potential drawbacks of this model.

The deployment of computerized payroll systems engenders a paradigm shift, delivering accurate, timely, and reliable compensation information to employees, thereby mitigating the challenges inherent in manual systems, such as payment delays and computation inaccuracies. Consequently, enhanced employee morale and productivity ensue, facilitated by streamlined administrative processes and expedited decision-making through access to timely reports. Centralized databases underpinning computerized systems, typified by relational database architectures, not only facilitate real-time data access and updates but also safeguard sensitive payroll information from unauthorized access, thereby fortifying data security protocols.

1.2 Problem Statement

In recent times, there is a plethora of evidence supporting the use of computerized payroll software (Ahmed et al., 2023; Zhao and Rabiei, 2023), however, challenges persist in their adoption, implementation, and utilization within organizational contexts. These challenges include resistance to change, technological barriers, phobia regarding automation, overreliance on technology, insufficient post-implementation training and support, and concerns regarding data security and privacy.

1.3 Aim and Objectives of the Study

This study's main goal is to find out how computerized payroll systems affect workers' productivity. It focuses on the Babcock University Staff School instance. The goals are:

- To evaluate the impact of automated payroll systems on worker productivity.

- To determine the factors that contribute to the adoption and utilization of computerized payroll systems

- To investigate the connection between the use of computerized payroll systems and employee satisfaction.

1.4 Research Questions

The following research questions were deduced from the aim and objectives.

- What is the influence of computerized payroll systems on employee productivity?

- What factors contribute to the adoption and utilization of computerized payroll systems?

- How does employee satisfaction relate to the implementation of computerized payroll systems?

1.5 Research Hypotheses

Ho1: There is no significant relationship between the adoption of computerized payroll systems and employee productivity.

Ho2: Employee productivity has no significant difference with the implementation of computerized payroll systems.

Ho3: Employee satisfaction has no significant difference with the implementation of computerized payroll systems.

1.6 Model Specification

The study makes use of a conceptual framework that was inspired by organizational behavior literature, technology adoption theories, and earlier payroll system studies. Constructs including perceived usefulness, usability, organizational preparedness, worker satisfaction, and productivity are all integrated into the model.

1.7 Apriori Expectation

Computerized payroll systems are expected to have a favorable effect on employee happiness and productivity, according to the literature currently in publication. It is also anticipated that elements like corporate culture, system usability, and training would have an impact on how well these systems are adopted and function.

1.8 Scope of Study

This study primarily examines the effects of computerized payroll systems on Babcock University Staff School. The study's focus is on measuring staff productivity and satisfaction once the payroll system is put into place.

1.9 Significance of the Study

Payroll administrators, HR professionals, and organizational decision-makers should find immense value in the study's conclusions when it comes to the setup and maintenance of computerized payroll systems in the context of the elementary school systems in Nigeria. In the same vein, the study augments the existing corpus of knowledge on the use of technology, and how it impacts worker satisfaction and productivity.

1.10 Organization of Subsequent Chapters

The succeeding chapters of this paper are structured as follows: Chapter 2 illustrates a detailed testimonial of appropriate literary works consisting of academic structures, and empirical research studies, coupled with academic designs. Chapter 3 describes the research study technique used in this research consisting of the research study layout, information collection approaches together with logical methods. Chapter 4 discusses the findings of the empirical analysis, accompanied by discussions and interpretations. Ultimately, Chapter 5 provides conclusions, and recommendations based on the study findings, along with avenues for future research.

II. Literature Review

2.1 Technology Adoption Theories

The foundational stage of most organizations that utilize technology is identifying the elements that drive the user's adoption of technology (Taherdoost, 2018). Consequently, a comprehension of why and how employees adopt technology systems remains crucial for their successful implementation (Samadbeik, 2023). Likewise, technology adoption theories provide frameworks for analyzing this behavior (Gyawali et al., 2023), but their applicability to computerized payroll systems demands critical evaluation. Hence, this paper will examine three dominant theories and their applicability to computerized payroll systems.

The Technology Acceptance Model (TAM) is prominent and has been extensively used with computerized payroll systems (Wu & Yu, 2023). Even though it is based on perceived utility (PU) and perceived ease of use (PEU), there are concerns from scholars regarding its drawbacks (Adi Nugroho & Susanto, 2023; Julianto & Daniawan, 2022; Malatji et al., 2020). For instance, PU might not fully capture the complex value proposition of payroll systems, encompassing factors like accuracy, security, and data privacy. Additionally, PEU may not adequately reflect user experiences with evolving interfaces and functionalities. There is also

the condemnation of TAM's tendency to overlook organizational factors and broader contextual elements (Hu et al., 2024; Venkatesh and Bala, 2008). In the case of computerized payroll systems, organizational readiness, and compatibility are pivotal factors often neglected by TAM.

Unified Theory of Acceptance and Use of Technology (UTAUT): UTAUT builds upon TAM (Al-Emran et al., 2020; Khan and Al-Emran, 2023), incorporating performance expectancy, effort expectancy, social influence, and facilitating conditions alongside PU and PEU. Studies suggest its applicability to payroll systems (Hakim & Madyatmadja, 2023; Tomić et al., 2022), particularly in understanding the impact of training and social support on adoption. However, some concerns remain about the generalizability of UTAUT across diverse organizational contexts and user demographics (Blunt et al., 2022). For example, Bayaga & du Plessis (2023) show that some scholars argue that the current UTAUT framework may be somewhat obsolete in the actual usage of systems (including payroll systems). Furthermore, a meta-analysis (Dwivedi et al., 2020) provides insights into the strengths and limitations of UTAUT. While it supports the model's validity, it also discusses areas for improvement and future research.

Diffusion of Innovation Theory (DOI): DOI emphasizes the communication and social dynamics influencing technology adoption (Hakim & Madyatmadja, 2023). In the context of computerized payroll systems, this theory aligns well with the need for organizations to embrace efficient payroll processing methods. Also, studies (Call & Herber, 2022) have examined how managers' championing and peer influence impact payroll system acceptance and found that DOI effectively explains the diffusion process in organizations seeking to enhance their technology systems. However, critics argue that DOI oversimplifies the adoption process by neglecting the organizational culture's impact on technology adoption (He & Lee, 2020; Dearing, 2021). This is particularly relevant when considering the complex nature of organizational structures in adopting computerized payroll systems.

Table 2.1: Deciphering the Adoption Code: TAM, UTAUT, and DOI Compared

Feature	TAM	UTAUT	DOI
Focus	Individual	Individual	Social System
Key Factors	PU, PEU	PU, PEU, Others	Relative Advantage, etc.
Strengths	Simple, Widely used	Comprehensive, Nuanced	Social dynamics, Diffusion process
Weaknesses	Limited scope	Complex	Not individual-focused

Table 2.1 compares the three dominant technology adoption theories. TAM suggests that high PU and PEU lead to higher adoption rates but might not capture deeper social influences or organizational contexts. On the other hand, UTAUT offers a richer picture, incorporating social and contextual factors, but its complexity might require more effort in application than TAM. Lastly, DOI emphasizes the communication and social dynamics driving adoption, looking beyond individual perceptions. It might be less applicable to individual technology decisions but excels in understanding overall innovation diffusion within organizations.

In the context of critical considerations and emerging perspectives, other frameworks, such M-TECH model (Granić, 2022) emphasizes the role of organizational context, job characteristics, and individual technology experience in shaping adoption behavior. Some other studies suggest that emotions like anxiety and trust in the system significantly impact user acceptance (e.g., Naneva et al., 2020). These factors might not be adequately captured by traditional models. In addition, the evolving technological landscape, such as cloud-based systems, mobile functionalities, and integrations with other HR applications introduce new complexities that existing theories might not fully address. Furthermore, Gartner reported that 39% of employees experienced challenges in adapting to new HR technologies (Kropp, 2022).

2.2 Impact on Job Satisfaction and Motivation

A study by Ahmed et al. (2023) found a positive correlation between the implementation of computerized payroll systems and increased job satisfaction among employees. The authors developed a web-based payroll management system (WPMS) that reduced errors, generate reports, and improved payroll processing time, contributing to overall job satisfaction with a usability satisfaction score of 87.8%. Similarly, a study (Elrehail et al., 2019) highlights the relationship between employee satisfaction and organizational performance. However, critics argue that while initial satisfaction may be high, the continuous reliance on technology may lead to job dissatisfaction over time. According to Harvard Business Review article, the lack of human interaction in payroll processes could contribute to a perceived loss of control and personalization (Seppälä & McNichols, 2022).

Studies such as Murla et al. (2020) and Palladan & Palladan (2018) emphasize the role of computerized payroll systems in reducing errors and ensuring accurate compensation, positively impacting job satisfaction. They claim that the automation of calculations and data processing minimizes the chances of payroll-related mistakes. Also, a report by Accenture (2022) indicates that organizations implementing advanced computerized payroll systems reported an increase in payroll processing efficiency, leading to improved employee motivation. Conversely, some researchers, including Heissler et al. (2022), argue that dependence on technology may create a sense of detachment among employees. Hence, overreliance on automated processes may diminish the perceived value of individual contributions, potentially affecting motivation negatively.

Research by Ahmed et al. (2023) suggests that computerized payroll systems empower employees to access and manage their payroll information when equipped with self-service options. This autonomy is linked to increased job satisfaction and motivation. Similarly, a group of payroll merchants, including Pierce (2023) and PaySlip (2020), suggests that employees appreciated the flexibility, simplicity, engagement, and convenience of self-service payroll options, leading to improved motivation and satisfaction. On the contrary, studies by Tement et al. (2020) raise concerns about the potential for increased stress and dissatisfaction when employees are required to navigate complex self-service interfaces. Also, a 2021 study by the Pew Research Center found that 36% of American adults lack basic computer skills, potentially hindering their ability to adapt to new payroll systems (Auxier & Anderson, 2021). This suggests that the effectiveness of self-service payroll features may vary based on individual technological proficiency.

There is the challenge of automation replacing the role of humans. A 2017 report by McKinsey Global Institute projects that 800 million jobs will be replaced by automation by 2030 may have substantiated these fears. Payroll professionals are most likely to be affected (Manyika et al., 2017). Likewise, a 2022 report by the World Economic Forum suggests that only 38% of workers globally feel prepared for the alterations demanded by automation (World Economic Forum, 2022).

The impact of computerized payroll on job satisfaction and motivation is diametrically opposite. While it offers advantages like accuracy, efficiency, and empowerment, concerns regarding job displacement, technology phobia, and human connection cannot be ignored. Organizations must implement these systems thoughtfully, prioritizing employee training, support, and clear communication to ensure a smooth transition with minimal negative impact on job satisfaction and motivation.

2.3 Training and Change Management

The research conducted by Fariza et al. (2019) emphasizes the importance of training programs in facilitating the transition to payroll systems. Effective training plays a role in improving employees' understanding and proficiency, which leads to implementation and increased productivity. Similarly, Ferrari (2022) highlights that the level of skills acquired after training significantly impacts employee's confidence in embracing change. Therefore, matching skills positively influences employees' confidence when it comes to change.

Furthermore, according to a study conducted by Murla et al. (2020) organizations that invest in change management strategies during the implementation of computerized payroll systems witness levels of employee engagement and satisfaction. However, some scholars, like Tement et al. (2020) argue that despite the emphasis on training organizations often fail to provide support and reinforcement needed after implementation. This insufficient post-implementation training may lead to underutilization of system capabilities and frustration among users.

Studies by Jamuar (2024) demonstrate that organizations with well-designed training programs observe significant improvements in payroll processing efficiency and accuracy. Consequently, properly trained employees are better equipped to leverage the functionalities of computerized payroll systems, resulting in fewer errors and faster processing times. However, authors like Ajana (2020) argue that the focus on efficiency metrics may overshadow the importance of user experience and job satisfaction. Hitherto, employees pressured to meet efficiency targets may feel overwhelmed and disengaged, undermining the intended benefits of the system.

Research by Rafferty & Jimmieson (2017) underscores the significance of change management in addressing employee resistance and fostering a culture of acceptance. Accordingly, transparent communication and involvement in decision-making processes can mitigate resistance and promote buy-in from employees. Equally, a study by Shepherd et al. (2019) found that organizations prioritizing cultural alignment and employee involvement during system implementation reported higher levels of user adoption and satisfaction. Inversely, some scholars, such as Li et al. (2021), argue that ingrained organizational cultures and resistance to change pose significant barriers to successful implementation. Hence, training and change management efforts may be futile if not tailored to address deeply rooted cultural challenges.

Rafferty & Jimmieson (2017) emphasize the need for ongoing training and support beyond the initial implementation phase. Hence, continuous learning opportunities and feedback mechanisms enable organizations to adapt to evolving technologies and user needs, ensuring long-term success. According to a report by Harvard Business Review (Chandrasekaran & Toussaint, 2022,), organizations that prioritize continuous improvement initiatives witness sustained employee engagement and satisfaction with computerized payroll systems. Nevertheless, critics argue that sustaining training and change management efforts over time requires significant investment and commitment from organizational leaders (Ferrari, 2022). Without adequate resources and leadership support, initiatives may falter, leading to stagnation and eventual system obsolescence.

III. The Conceptual Framework

This conceptual framework illustrates the relationship between implementing computerized payroll systems and employee productivity within the context of Babcock University Staff School. It identifies the key variables and outlines the hypothesized pathways through which computerized payroll systems influence employee productivity, satisfaction, and motivation.

3.1 Key Components:

1. Computerized Payroll Systems (Independent Variable):

- Automation and Efficiency: Reduced manual errors, faster processing, and streamlined operations.
- Accessibility and Transparency: Easy access to payroll information, transparency in deductions and benefits.

2. Employee Productivity (Dependent Variable):

- Task Efficiency: Time saved on payroll-related queries, allowing more focus on primary job responsibilities.
- Reduced Administrative Burden: Less time spent on payroll issues, increasing time for core functions.

3. Mediating Variables:

- Job Satisfaction: Enhanced satisfaction due to accurate and timely salary disbursements.
- Employee Motivation: Increased motivation from reliable and transparent payroll processes.
- Reduced Payroll Errors: Minimization of disputes and corrections related to payroll, leading to a more stable and focused workforce.

4. Moderating Variables:

- Organizational Support: Training and support provided by the organization to facilitate the transition to and use of computerized payroll systems.
- Technological Infrastructure: Adequacy of the IT infrastructure supporting the payroll system.
- User Experience: The ease of use and user-friendliness of the payroll system interface.
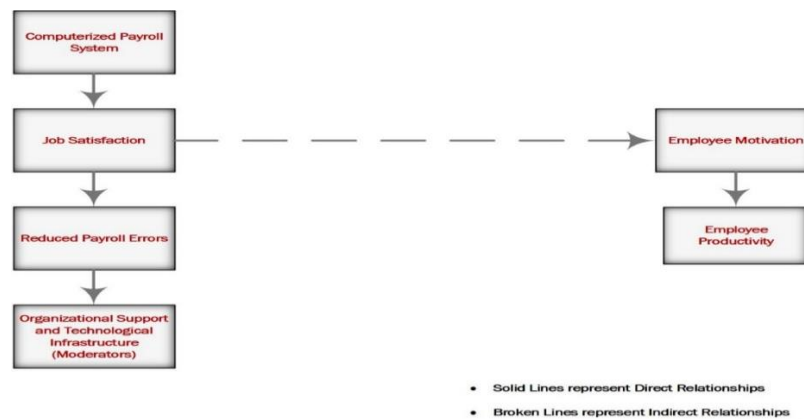
3.2 Visual Representation

Figure 4.0: The Conceptual Framework

This framework provides a structured approach to understanding how computerized payroll systems can influence employee productivity by mediating variables like job satisfaction, motivation, and reduced errors, moderated by organizational support and infrastructure.

Computerized Payroll System is at the top as the independent variable that influences job satisfaction. Job Satisfaction leads to Employee Motivation, suggesting that satisfied employees are more motivated. Employee Motivation and Reduced Payroll Errors (due to efficient payroll systems) both contribute to increased Employee Productivity. The Moderators (Organizational Support and Technological Infrastructure) influence the strength and direction of the relationships between computerized payroll systems and the other variables.

IV. Methodology

This section outlines the systematic procedures for investigating the impact of the payroll system on employee productivity at Babcock University Staff School, Ilisan-Remo, Ogun State.

4.1 Research Design

A quantitative research design utilizing a cross-sectional survey is employed to gather firsthand information on the relationship between the independent variable (payroll system) and the dependent variable (employee productivity).

4.2 Population of the Study

The study focuses on the staff of Babcock University Staff School, Ilisan-Remo, Ogun State.

4.3 Sample Size and Determination

The sample size of 82 staff members is determined using the Taro Yamane (Yamane, 1964) sampling technique (Yamane, 1964).

4.4 Sample and Sampling Technique

The Taro Yamane method is utilized to select a sample size from the population of 82 staff members.

4.5 Data Source and Data Collection Instrument

Primary data is collected through a validated questionnaire (Google Form) structured to address research objectives. The questionnaire utilizes a 6-Likert scale for responses.

4.6 Method of Data Analysis

Data collected will be analyzed using Statistical Product and Service Solutions (SPSS), employing descriptive and inferential statistical tools such as frequency analysis, mean, standard deviation, simple regression analysis, and Z-test to test formulated hypotheses.

Table 3.1: Method of Data Analysis

S/N	Hypotheses	Tools of Analysis
1	H_o1: There is no significant relationship between the adoption of computerized payroll systems and employee productivity.	Simple Linear Regression
2	H_o2: Employee productivity has no significant difference with the implementation of computerized payroll systems.	Simple Linear Regression
3	H_o3: Employee satisfaction is negatively correlated with the implementation of computerized payroll systems.	Simple Linear Regression

4.7 Validity and Reliability

The data collected cover all relevant aspects of job satisfaction, employee motivation, payroll errors, and productivity. Experts in human resource management and information systems were consulted and reviewed regarding the items to confirm they adequately cover all dimensions of the constructs. Cronbach's alpha was used to assess internal consistency to ensure reliability (Vaske et al., 2017).

V. Findings and Discussions

This chapter presents the findings of a study on the effects of a computerized payroll system on employee productivity, focusing on Babcock University Staff School, Ilisan Remo, Ogun State, Nigeria. It consists of two sections: one detailing respondent response rates and the other presenting descriptive statistics, hypothesis tests, and discussions.

5.1 Response Rate

A total of 81 responses were collected from the 81 Google Form questionnaires administered, indicating a 100% response rate. This high response rate is deemed very good, according to established criteria (Yamane, 1964).

Table 4.1: Response Rate

Categories	Target Respondents	Response Rate (%)
Retrieved	81	100
Unretrieved	0	0
Total	81	100

Source: Field Survey Results, 2024

5.2 Descriptive Analysis and Interpretation

Descriptive analysis was conducted on various variables using mean scores and standard deviations. The results are presented in detail in Table 4.2.1, which provides insights into respondents' perceptions regarding the impact of the computerized payroll system on productivity. The field labels are SA (Strongly Agree), A (Agree), PA (Partially Agree), PD (Partially Disagree), D (Disagree), and SD (Strongly Disagree).

Table 4.2.1 - Descriptive Analysis of the impact of computerized payroll system on workers productivity

	SA	A	PA	PD	D	SD		
	%	%	%	%	%	%	Mean	STD
I agree that the computerized payroll system in my organization is user-friendly	35.8	46.9	13.6	2.5	1.2	0.0	5.14	0.833
The computerized payroll system has reduced the occurrence of payroll errors	29.6	45.7	17.3	6.2	1.2	0.0	4.96	0.914
The computerized payroll system integrates very well with other HR systems in this organization	34.6	44.4	18.5	2.5	0.0	0.0	5.11	0.791
The computerized payroll system has improved the efficiency of payroll processing	27.2	51.9	17.3	2.5	1.2	0.0	5.01	0.814
The computerized payroll system has positively impacted overall payroll management in this organization	25.9	48.1	16.0	3.7	4.9	1.2	4.83	1.093
The system's responsiveness in addressing any issues or queries related to payroll processing is positively encouraging	34.6	46.9	9.9	4.9	3.7	0.0	5.04	0.993
The computerized payroll system has enhanced data security and confidentiality of payroll information	29.6	49.4	17.3	0.0	3.7	0.0	5.01	0.901
There has been a high overall productivity since the introduction of the computerized payroll system	28.4	50.6	18.5	2.5	0.0	0.0	5.05	0.757

Source: Field Survey Results, 2024

Table 4.2.1 displays respondents' perceptions regarding various aspects of the computerized payroll system's impact on productivity, with mean scores and standard deviations indicating levels of agreement or disagreement. The results from the regression analysis suggest a significant positive relationship between the adoption of computerized payroll systems and employee productivity. The findings counters hypothesis one which states there is no significant relationship between the adoption of computerized payroll systems and employee productivity. This aligns with existing literature (Nwankpa and Roumani, 2024; Palladan and Palladan, 2018), emphasizing the benefits of automated payroll systems in enhancing efficiency and productivity.

Table 4.2.2 - Descriptive Analysis of adoption and utilization of computerized payroll systems

	SA	A	PA	PD	D	SD		
	%	%	%	%	%	%	Mean	STD
The computerized payroll system has positively influenced my work efficiency	25.9	51.9	16.0	3.7	2.5	0.0	4.95	0.893
The computerized payroll system influenced my job satisfaction and motivation	21.0	63.0	11.1	3.7	1.2	0.0	4.99	0.766
I believe the computerized payroll system has positively influenced the overall work environment and collaboration within this organization	28.4	50.6	16.0	2.5	1.2	1.2	4.99	0.929

The computerized payroll system has influenced my ability to manage my work hours and schedules effectively	19.8	55.6	13.6	3.7	7.4	0.0	4.77	1.052

Source: Field Survey Results, 2024

Table 4.2.2 summarizes the descriptive analysis of the adoption and utilization of computerized payroll systems at Babcock University Staff School. It shows varying levels of agreement among respondents regarding the system's impact on work efficiency, job satisfaction, collaboration, and scheduling management. The findings from the regression analysis indicate a significant positive relationship, suggesting that the implementation of automated payroll systems motivates worker productivity which counters hypothesis two which states employee productivity has no significant difference with the implementation of computerized payroll systems.

The results support existing literature (Willcocks, 2024; Ahmed et al., 2023), highlighting the positive impact of implementing automated payroll systems on worker productivity. This includes efficiency in payment processing, timely salary disbursement, and improved organizational competitiveness through responsive salary management.

Table 4.2.3 - Descriptive Analysis of how employee satisfaction relates to the implementation of computerized payroll systems

	SA	A	PA	PD	D	SD		
	%	%	%	%	%	%	Mean	STD
The computerized payroll system has reduced the occurrence of payroll errors	29.6	45.7	17.3	6.2	1.2	0.0	4.96	0.914
The training provided for using the computerized payroll system is satisfactory	32.1	46.9	17.3	2.5	1.2	0.0	5.06	0.842
I am satisfied with the level of customization and flexibility offered by the computerized payroll system to meet the organization's specific needs	38.3	45.7	6.2	4.9	3.7	1.2	5.06	1.088
I am satisfied with the accessibility of my payroll information through the computerized system	24.7	54.3	12.3	7.4	1.2	0.0	4.94	0.885
The timeliness of salary payment is satisfactory since the implementation of the computerized payroll system	23.5	56.8	16.0	2.5	1.2	0.0	4.99	0.783
I am satisfied with the communication channels and support provided regarding the computerized payroll system	28.4	44.4	18.5	2.5	4.9	1.2	4.85	1.097
I am satisfied with the overall training and support provided during the transition to the computerized payroll system	19.8	65.4	12.3	1.2	0.0	1.2	5.00	0.758
I believe the computerized payroll system has improved the accuracy of my personal payroll-related information, such as deductions and benefits	19.8	69.1	8.6	1.2	0.0	1.2	5.04	0.732

Source: Field Survey Results, 2024

Table 4.2.3 summarizes the descriptive analysis of employee satisfaction concerning the implementation of computerized payroll systems at Babcock University Staff School. It shows varying levels of agreement regarding the system's impact on reducing payroll errors, training satisfaction, customization, accessibility of payroll information, timeliness of salary payment, communication channels, overall training support, and accuracy of payroll-related information. The findings from the regression analysis indicate a significant positive relationship, suggesting that the implementation of automated payroll systems predicts employee satisfaction. The result counters hypothesis three which states employee satisfaction is not positively correlated with the implementation of computerized payroll systems.

The results support existing literature (Zayed et al., 2022), highlighting the positive impact of implementing automated payroll systems on employee satisfaction. The timely payment of wages and salaries, instant access to payroll information, and increased transparency contribute to enhanced employee satisfaction, reinforcing the importance of automated payroll systems in organizational settings.

VI. Conclusion

This study delves into the multifaceted impact of computerized payroll systems on staff productivity, using Babcock University as a case study. It elucidates how such systems significantly overhaul organizational payroll processes. By scrutinizing potential benefits and implementation challenges, we draw upon literature on technology adoption theories and their effects on employee motivation and satisfaction. Moreover, we emphasize the pivotal roles of training and change management.

VII. Recommendations

Drawing from the findings, several recommendations can enhance payroll system effectiveness:

Investment in Training and Change Management: Organizations should prioritize comprehensive training programs and change management techniques to facilitate a smooth transition to computerized payroll systems. Continued investment in training and ongoing support tailored to users' roles and needs is crucial for skill development and user satisfaction.

Consideration of Organizational Context: Organizations must tailor their approaches to change management, communication, and training to their unique organizational context and culture to overcome resistance and promote acceptance among employees.

Integration of Self-Service Options: Providing employees with self-service options to access and manage their payroll information can empower them and boost motivation and job satisfaction. However, ensuring accessibility and usability for all employees is essential.

Precision and Efficacy Focus: Prioritizing reliability, efficiency, and accuracy in payroll processing is paramount. Employers should continuously improve features and functions to reduce errors, expedite workflows, and provide accurate payroll information promptly.

Continuous Improvement: Cultivating a culture of continuous improvement is essential. Organizations should regularly evaluate system efficacy and user experience, adjust training programs based on feedback, and adapt to technological advancements and regulatory changes.

VIII. Future Studies

Further research avenues include:

Long-Term Effects: Investigating the enduring impacts of computerized payroll systems on employee satisfaction and productivity through longitudinal studies can provide insights into sustainable system development.

User Experience: Researching the usability, accessibility, and satisfaction of computerized payroll systems using controlled trials and human-centered design concepts can uncover areas for optimization.

Organizational Culture: Exploring how company culture influences technology adoption and change management can inform more effective implementation strategies.

Emerging Technologies: Examining the effects of emerging technologies like blockchain and artificial intelligence on payroll systems can guide future system development initiatives.

Comparative Studies: Comparative studies on different types of payroll systems can aid organizations in selecting and implementing the most suitable option.

IX. Summary

In summary, the implementation of computerized payroll systems significantly influences worker productivity, job satisfaction, and organizational effectiveness. By understanding the factors influencing technology adoption, implementing efficient training and change management strategies, and prioritizing ongoing improvement, organizations can maximize the benefits of these systems, fostering positive outcomes for both employees and the enterprise as a whole.

X. References

1. Accenture (2022). Improving Payroll Performance: Applying Technology to improve payroll performance in the cloud. Available from https://www.accenture.com/content/dam/accenture/final/a-com-migration/pdf/177/Accenture-Improving - Payroll-Performance-2022.pdf (Accessed January 2024).
2. Adi Nugroho, A., & Susanto, N. (2023, July 18). ANALYSIS OF DIGITAL TERRESTRIAL TELEVISION TECHNOLOGY ACCEPTANCE USING THE UTAUT2 MODEL. Jurnal TAM (Technology Acceptance Model), 14(1), 83. https://doi.org/10.56327/jurnaltam.v14i1.1539
3. Ahmed, A. M., Mohammed, C. N., & Ahmad, A. M. (2023, March 20). Web-based payroll management system: design, implementation, and evaluation. Journal of Electrical Systems and Information Technology, 10(1). https://doi.org/10.1186/s43067-023-00082-5
4. Ajana, B. (2020, November 18). Personal metrics: Users' experiences and perceptions of self-tracking practices and data. Social Science Information, 59(4), 654–678. https://doi.org/10.1177/0539018420959522

5. Al-Emran, M., Mezhuyev, V., & Kamaludin, A. (2020). Using the UTAUT model to understand students' usage of e-learning systems in developing countries. International Journal of Information Management, 50, 437-450.

6. Auxier, B. & Anderson, M. (2021, April 7). Social media use in 2021. Pew Research Center: Internet, Science & Tech. Available from https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/ (Accessed January 2024).

7. Bayaga, A., & du Plessis, A. (2023, September 19). Ramifications of the Unified Theory of Acceptance and Use of Technology (UTAUT) among developing countries' higher education staffs. Education and Information Technologies. https://doi.org/10.1007/s10639-023-12194-6

8. Blunt, M., Chong, A. Y. L., Tsigna, Zayyad, Tsigna & Venkatesh, V. (2022). Meta-Analysis of the Unified Theory of Acceptance and Use of Technology (UTAUT): Challenging its Validity and Charting a Research Agenda in the Red Ocean. Journal of the Association for Information Systems, 23(1), 13–95. 10.17705/1jais.00719

9. Call, D. R., & Herber, D. R. (2022, September 9). Applicability of the diffusion of innovation theory to accelerate model-based systems engineering adoption. Systems Engineering, 25(6), 574–583. https://doi.org/10.1002/sys.21638

10. Chandrasekaran, A. & Toussaint, J.S. (2022, November 7). Creating a Culture of Continuous Improvement. Harvard Business Review. https://hbr.org/2019/05/creating-a-culture-of-continuous-improvement (Accessed January 2024).

11. Cheek, F. (2022). Changing the focus of payroll with artificial intelligence. Oracle Fusion Cloud Human Capital Management Blog. Retrieved from https://blogs.oracle.com/oraclehcm/post/changing-the-focus-of-payroll-with-ai (Accessed January 2024).

12. Dearing, J. W. (2021, June 9). Diffusion of Innovations. The Oxford Handbook of Organizational Change and Innovation, 611–638. https://doi.org/10.1093/oxfordhb/9780198845973.013.23

13. Dwivedi, Y. K., Rana, N. P., Tamilmani, K., & Raman, R. (2020, December). A meta-analysis based modified unified theory of acceptance and use of technology (meta-UTAUT): a review of emerging literature. Current Opinion in Psychology, 36, 13–18. https://doi.org/10.1016/j.copsyc.2020.03.008

14. Elrehail, H., Harazneh, I., Abuhjeeleh, M., Alzghoul, A., Alnajdawi, S., & Ibrahim, H. M. H. (2019, August 6). Employee satisfaction, human resource management practices and competitive advantage. European Journal of Management and Business Economics, 29(2), 125–149. https://doi.org/10.1108/ejmbe-01-2019-0001

15. Fariza, H. R., Aidi, A., Yurita, Y. A. T., Khairina, R. (2019, July 26). Global Perspective on Payroll System Patent and Research: A Bibliometric Performance. International Journal of Recent Technology and Engineering, 8(2S2), 148–157. https://doi.org/10.35940/ijrte.b1028.0782s219

16. Ferrari, F. (2022). Skills mismatch and change confidence: The impact of training on change recipients' self-efficacy. European Journal of Training and Development, 47(10), 2776

17. Granić, A. (2022, April 5). Educational Technology Adoption: A systematic review. Education and Information Technologies, 27(7), 9725–9744. https://doi.org/10.1007/s10639-022-10951-7

18. Gyawali, B. R., Paudel, K. P., Jean, R., & Banerjee, S. B. (2023). Adoption of computer-based technology (CBT) in agriculture in Kentucky, USA: Opportunities and barriers. Technology in Society, 72, 102202. https://doi.org/10.1016/j.techsoc.2023.102202

19. Hakim, A. N., & Madyatmadja, E. D. (2023). Examining the Employees' Acceptance of Human Resource Information Systems: An Empirical Study with UTAUT Model. Journal of System and Management Sciences, 13(4), 40-58.

20. He, M., & Lee, J. (2020, March 19). Social culture and innovation diffusion: a theoretically founded agent-based model. Journal of Evolutionary Economics, 30(4), 1109–1149. https://doi.org/10.1007/s00191-020-00665-9

21. Heissler, C., Kern, M., & Ohly, S. (2022, January 28). When Thinking About Work Makes Employees Reach for Their Devices: A Longitudinal Autoregressive Diary Study. Journal of Business and Psychology, 37(5), 999–1016. https://doi.org/10.1007/s10869-021-09781-0

22. Hu, S. G., Wang, W. Y., Wang, X. X., & Yin, Y. M. (2024, January 23). Assessing the intention to accept inquiry-based teaching pedagogy among Chinese university students: an extension of technology acceptance model. Frontiers in Psychology, 15. https://doi.org/10.3389/fpsyg.2024.1265047

23. Jamuar, P. (2024). Tips for maximizing efficiency and accuracy in payroll processing. peopleHum Employee Engagement. Retrieved from https://www.peoplehum.com/blog/accuracy-in-payroll-processing (Accessed January 2024).

24. Julianto, M. R., & Daniawan, B. (2022, July 12). E-COMMERCE INFORMATION SYSTEM USING TECHNOLOGY ACCEPTANCE MODEL APPROACH. Jurnal TAM (Technology Acceptance Model), 13(1), 1. https://doi.org/10.56327/jurnaltam.v13i1.1106

25. Khan, S. A., & Al-Emran, M. (2023). Ramifications of the Unified Theory of Acceptance and Use of Technology (UTAUT) during the COVID-19 pandemic. Journal of Technology in Education and Learning, 8(2), 123-138.

26. Kropp, B. (2022). The 2022 Workplace Trends That Business Leaders Must Address. In Gartner. Available from https://www.gartner.com/en/articles/the-2022-workplace-trends-that-business-leaders-must-address (Accessed January 2024).

27. Li, J., Wu, N., & Xiong, S. (2021). Sustainable innovation in the context of organizational cultural diversity: The role of cultural intelligence and knowledge sharing. PLoS ONE, 16(5), e0250878

28. Malatji, W. R., Eck, R. V., & Zuva, T. (2020). Understanding the usage, Modifications, Limitations and Criticisms of Technology Acceptance Model (TAM). Advances in Science, Technology and Engineering Systems Journal, 5(6), 113–117. https://doi.org/10.25046/aj050612

29. Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, L., Batra, P., Ko, R., & Sanghvi, S. (2017, November 28). Jobs Lost, jobs gained: What the future of work will mean for jobs, skills, and wages. McKinsey & Company. https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages

30. Murla, J. M. C., Roasa, J. A., Reyes, R. V., Mesa, J. S. D., & Santos, M. D. (2020). Assessment of School-Based Payroll System: Basis for Enhancement. International Journal of English Literature and Social Sciences, 5(1), 132–135. https://doi.org/10.22161/ijels.51.26

31. Naneva, S., Sarda Gou, M., Webb, T. L., & Prescott, T. J. (2020, June 3). A Systematic Review of Attitudes, Anxiety, Acceptance, and Trust Towards Social Robots. International Journal of Social Robotics, 12(6), 1179–1201. https://doi.org/10.1007/s12369-020-00659-4

32. Nwankpa, J.K. and Roumani, Y.F. (2024), "Remote work, employee productivity and innovation: the moderating roles of knowledge sharing and digital business intensity", Journal of Knowledge Management, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JKM-12-2022-0967

33. Palladan A. A. & Palladan N.Y. (2018) Employees Views on Payroll Computerization and Its Impact on Their Productivity: A Grounded Theory Approach. Arabian J Bus Manag Review 8: 340.

34. PaySlip (2020) What is Employee Self Service? Available from https://payslip.com/resources/blog/what-is-employee-self-service (Accessed January 2024).

35. Pierce, R. (2023) How employee self-serve features can reduce payroll admin. Sage. Available from https://www.sage.com/en-ca/blog/how-employee-self-serve-features-can-reduce-payroll-admin/?ClickID=UF7UJqQmZxyPUTXQyJQWHwKVUkHwCmxYJwb00o0&irgwc=1&utm_source=affiliate&utm_medium=leadGenSage&utm_campaign=ImpactAffiliateProgramme&utm_term=ImpactAffiliate&utm_content=123201 (Accessed January 2024).

36. Rafferty, A. E., & Jimmieson, N. L. (2017). Subjective perceptions of organizational change and employee resistance to change: Direct and mediated relationships with employee well-being. British Journal of Management, 28(2), 248–264

37. Samadbeik, M., Aslani, N., Maleki, M., & Garavand, A. (2023). Acceptance of mobile health in medical sciences students: Applying technology acceptance model. Informatics in Medicine Unlocked, 40, 101290. https://doi.org/10.1016/j.imu.2023.101290

38. Seppälä, E., & McNichols, N. K. (2022). The Power of Healthy Relationships at Work. Harvard Business Review. Available from https://hbr.org/2022/06/the-power-of-healthy-relationships-at-work (Accessed January 2024).

39. Shepherd, S. M., Willis-Esqueda, C., Newton, D., Sivasubramaniam, D., & Paradies, Y. (2019). The challenge of cultural competence in the workplace: Perspectives of healthcare providers. BMC Health Services Research, 19, 1351

40. Taherdoost, H. (2018). A review of technology acceptance and adoption models and theories. Procedia Manufacturing, 22, 960–967. https://doi.org/10.1016/j.promfg.2018.03.137

41. Tement, S., Zorjan, S., Lavrič, M., Poštuvan, V., & Plohl, N. (2020, November 16). A randomized controlled trial to improve psychological detachment from work and well-being among employees: a study protocol comparing online CBT-based and mindfulness interventions. BMC Public Health, 20(1). https://doi.org/10.1186/s12889-020-09691-5

42. Tomić, N., Kalinić, Z., & Todorović, V. (2022, March 29). Using the UTAUT model to analyze user intention to accept electronic payment systems in Serbia. Portuguese Economic Journal, 22(2), 251–270. https://doi.org/10.1007/s10258-022-00210-5

43. Vaske, J. J., Beaman, J., & Sponarski, C. C. (2017). Rethinking internal consistency in Cronbach's alpha. Leisure Sciences, 39(2), 163–173. https://doi.org/10.1080/01490400.2015.1127189

44. Venkatesh, V., & Bala, H. (2008, May). Technology Acceptance Model 3 and a Research Agenda on Interventions. Decision Sciences, 39(2), 273–315. https://doi.org/10.1111/j.1540-5915.2008.00192.x

45. Willcocks, L.P. (2024), "Automation, digitalization and the future of work: A critical review", Journal of Electronic Business & Digital Economics, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JEBDE-09-2023-0018

46. World Economic Forum. (2022, January 23). These 5 charts reveal the Global Economic Outlook for 2022. Available from https://www.weforum.org/agenda/2022/01/global-economic-outlook-5-charts-world-bank/ (Accessed January 2024).

47. Wu, R., & Yu, Z. (2023, August 6). Investigating Users' Acceptance of the Metaverse with an Extended Technology Acceptance Model. International Journal of Human–Computer Interaction, 1–17. https://doi.org/10.1080/10447318.2023.2241295

48. Yamane, T. (1964). Statistics: An Introductory Analysis (2nd ed.). New York: Harper & Row.

49. Zayed, N.M.; Rashid, M.M.; Darwish, S.; Faisal-E-Alam, M.; Nitsenko, V.; Islam, K.M.A. (2022) The Power of Compensation System (CS) on Employee Satisfaction (ES): The Mediating Role of Employee Motivation (EM). Economies, 10, 290. https://doi.org/10.3390/economies10110290

50. Zhang, K. (2024). Enhancing Employee Satisfaction Through Payroll Management. Entrepreneur Online. Available from https://www.entrepreneur.com/leadership/enhancing-employee-satisfaction-through-payroll-management/468831 [Accessed March 2024].

51. Zhao, M. and Rabiei, K. (2023), "Feasibility of implementing the human resource payroll management system based on cloud computing", Kybernetes, Vol. 52 No. 4, pp. 1245-1268. https://doi.org/10.1108/K-07-2021-0554

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