
THE IMPACT OF DIGITAL TRANSFORMATION ON EMPLOYEE ATTENDANCE MANAGEMENT IN UNIVERSITY

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Abstract

This research aims to comprehend how technological changes and the role of transformational leadership affect employee discipline and operational efficiency in the context of university. The research methodology employs a qualitative approach with a focus on field research and case studies in several units within universities. Data were collected through direct observations and interviews with professors, administrative staff, and other employees involved in digital transformation. The findings indicate that the implementation of GPS-based digital solutions significantly impacts employee attendance management, enhances operational efficiency, and raises ethical challenges related to privacy. Transformational leadership proves to be a key factor in creating an environment that supports discipline and innovation. The conclusions drawn from this study provide a holistic overview of how digital transformation and transformational leadership can synergistically shape a new paradigm in employee attendance management in higher education.

Keywords: Human Resource Management, Technology, Transformational Leadership.

INTRODUCTION



Globalization as a concept depicting the economic, political, and social integration among nations, has had significant impacts on work patterns and human resource management in various organizations. Global openness has compelled organizations to continuously adapt to changes and seek innovative solutions to enhance operational efficiency. Concurrently, technological advancements have been a primary driver in creating transformations within organizational scopes, including human resource management [5]. The development of Information and Communication Technology (ICT) stands as a cornerstone of such changes. The shift from conventional systems towards digital solutions reflects the evolution of technology that has influenced how organizations manage crucial aspects, such as employee attendance [10]. Traditional attendance systems, which might involve manual methods or specialized hardware like fingerprint or faceprint, are increasingly being supplanted by digital (software) solutions that are more efficient, affordable, and accessible [9].

Organizations are demanded to be more responsive to continuously changing needs. The shift towards digital solutions in employee attendance management becomes a crucial step to enhance flexibility and interconnectedness among team members who might be situated in various geographic locations. GPS technology, as one of the emerging digital solutions, facilitates tracking and managing employee attendance without significant physical constraints. In the context of technological innovation, GPS-based attendance applications offer a more dynamic and up-to-date approach in recording employee attendance. GPS-based attendance not only provides information about the time and

location of attendance but can also be integrated with the overall human resource management system. This opens opportunities to optimize efficiency, reduce costs, and enhance attendance data accuracy [3].

The transition from traditional attendance to digital solutions not only signifies technological transformation but also reflects cultural and normative changes in the workplace environment. Organizations adopting digital solutions tend to demonstrate readiness to adapt to global trends, provide flexibility for employees, and encourage productivity through the application of technology that facilitates access and information management. The shift towards digital transformation in employee attendance management in higher education institutions, particularly in the university environment, responds to the dynamics of modernization and efficiency demands in academic and administrative operations. This transformation encompasses not only the application of information technology to record attendance but also involves integrating digital solutions that can enhance overall human resource management effectiveness.

In the context of higher education, digital transformation in employee attendance management involves the use of various applications and systems that can automatically record and track the attendance of lecturers, administrative staff, and other employees. GPS applications, as one of the digital solutions, provide advantages in delivering accessibility and accuracy in attendance information [1]. This is highly relevant in higher education where work structures are often complex and involve many entities in various campus locations. However, these changes also present a number of specific challenges in the dynamics of university management. For example, when lecturers or academic staff conduct research or tasks outside the campus, GPS applications can provide better understanding of their attendance, but also raise ethical questions regarding privacy and surveillance. Therefore, there is a need to carefully consider the ethical impact of implementing these digital solutions in an academic environment.

The impact of digital transformation on employee discipline in universities also needs to be considered. Universities often have unique work cultures, where academic freedom and creativity are valued. Hence, it is important to understand how digital solutions can impact these dynamics and whether there is potential conflict between attendance management demands and academic needs. Additionally, the shift to digital solutions can also affect employee productivity. Although the primary goal is to enhance efficiency, the implementation of new technology is often followed by a learning curve and adjustment period. Universities need to ensure that the use of GPS applications or other digital solutions not only provides operational benefits but also does not hinder academic and administrative productivity.

This research seeks to understand the context of globalization, technological changes, and the implementation of digital solutions in the university environment. It will explore how digital transformation affects employee attendance management and its impact on employee discipline and productivity within the scope of higher education.

METHODS

The methodology employed in this study utilizes a qualitative approach with a focus on field research and case studies. The qualitative approach was chosen to gain a deep

understanding of the impact of digital transformation on employee attendance management, particularly concerning aspects of employee discipline in higher education institutions. This method is considered relevant because it allows researchers to explore nuances, perspectives, and experiences of stakeholders, as well as to understand the holistic context of university organizations. Field research involves direct observation and interviews with relevant parties, such as lecturers, academic staff, and administrative personnel in various units affected by digital transformation. Direct observation provides insights into the implementation of digital solutions, employee responses, and daily dynamics in the workplace. Interviews are conducted to obtain in-depth views and direct perspectives from stakeholders on how digital transformation affects employee discipline. Case studies provide a relevant approach as they offer a comprehensive framework for analyzing the impact of digital transformation within the specific context of an organization, in this case, higher education institutions. This includes structured questions to measure variables such as satisfaction levels, discipline, and perceptions of technology. Through case studies, researchers can analyze in detail how digital transformation affects attendance management and discipline in universities. Data collection also involves in-depth literature review to understand the conceptual and theoretical frameworks supporting the research. Data from the literature are used to compare research findings with previous findings and to investigate critical concepts such as motivation, job satisfaction, and transformational leadership in the context of digital transformation. Data analysis involves an inductive approach where main themes are identified through a deep understanding of collected qualitative data. Analysis is conducted using coding techniques and identification of patterns emerging from interviews, observations, and literature. Research findings are then presented in narrative form outlining the main findings and their implications for attendance management and employee discipline in the era of digital transformation. This methodology is expected to provide a deep understanding of the complexity of interactions between digital transformation and human resource management, particularly in the context of higher education.

RESULTS AND DISCUSSION

Organizational Behavior (OB)

The Theory of Organizational Behavior as a conceptual framework in human resource management highlights how employee behavior is organized and influenced by psychological, social, and leadership factors. In the context of digital transformation, changes in how employee attendance is recorded and managed can affect their motivation [6]. The implementation of GPS applications or similar digital solutions can introduce new elements into work routines, which can be a source of motivation or conflict, depending on individual perceptions and adaptability. Therefore, Organizational Behavior Theory is used to identify how these changes motivate or hinder employee discipline.

Organizational Behavior Theory is an in-depth and holistic approach to understanding individual and group behavior within an organization [12]. This theory integrates various psychological, social, and managerial concepts to discuss how individuals interact in the workplace and how these behaviors affect organizational performance overall. One key

point of Organizational Behavior Theory is the understanding that employee behavior is not only determined by external factors such as organizational structure and job tasks, but also by internal factors such as motivation, job satisfaction, and personal values. In other words, this theory emphasizes that human behavior in the workplace is not a simple outcome of situations or tasks but is influenced by the complexity of psychological and social factors.

In the context of human resource management, Organizational Behavior Theory provides a rich perspective on how managers and leaders can understand and respond to the needs, motivations, and expectations of employees [13]. Motivation is a key element in this theory where the concept of motivation in organizations is understood as the force that drives individuals to act and achieve specific goals [7]. In managing discipline, a deep understanding of what motivates employees can be key to creating an environment that supports compliance with rules and procedures.

The success of disciplinary management is also closely related to the level of employee job satisfaction. Organizational Behavior Theory asserts that job satisfaction is closely related to motivation and employee performance. In research on digital transformation in employee attendance management, the implementation of new technology can influence levels of job satisfaction. Whether digital solutions facilitate or complicate employee tasks, or whether they feel recognized and valued through these changes, can significantly impact discipline. Additionally, leadership also becomes a significant focus in Organizational Behavior Theory. Leadership here is not only about providing direction and supervision but also about motivating and shaping employee behavior (Hamizar, 2023). In disciplinary management, leaders can act as role models depicting the expected discipline and simultaneously creating a work climate that supports compliance.

Transformational Leadership

In the context of discipline, transformational leadership can shape an organizational culture that motivates employees to achieve high levels of discipline. Transformational leaders encourage innovation, creativity, and personal responsibility, all of which can contribute to enhancing discipline.

At the core of Transformational Leadership is the positive influence of leaders on employee behavior, attitudes, and performance through the creation of a clear and compelling vision [2]. Transformational leaders can evoke awareness and interest among employees in organizational goals that are greater than individual interests. They not only provide task instructions but also create an inspiring vision, motivate, and give meaning to every action taken by team members. In the context of disciplinary management, transformational leaders can have a significant impact on how employees perceive and adhere to organizational rules and norms. Transformational leadership shapes an organizational culture that motivates employees to internalize desired values and standards of behavior, including discipline.

Transformational leadership is also known for its ability to provide individual support and understand the needs and aspirations of employees. In the context of managing employee discipline, these leaders can create close relationships with employees, provide constructive feedback, and help them overcome obstacles related to discipline [11]. This

approach creates an environment where employees feel supported and empowered to achieve high levels of discipline. Transformational Leadership emphasizes the importance of innovation and creativity. Transformational leaders encourage employees to think critically, seek new solutions, and proactively contribute to positive change. In the context of disciplinary management, transformational leaders can encourage employees to see rules and policies not only as constraints but also as opportunities to improve performance and achieve common goals.

In the era of digital transformation, transformational leadership becomes increasingly crucial in managing technology-related changes. Transformational leaders not only act as change agents who understand and plan the implementation of new technology but also as motivators and facilitators of employee creativity in facing these transformations [8]. Leaders who apply transformational leadership will be able to create an inspiring vision regarding the use of digital technology, guide employees in responding to changes, and create an organizational culture that supports innovation. Furthermore, through an individual-focused approach, transformational leaders can help employees overcome uncertainty and concerns related to technological changes, thereby creating a positive work climate and optimizing results in the context of digital transformation.

Implementation of Transformation Management

Based on the research findings, it was found that the most prominent aspect related to the implementation of digital solutions, especially GPS-based solutions, and how these changes significantly impact recording and managing employee attendance in the university environment. The case study analysis provided a comprehensive overview of these changes and revealed the daily dynamics related to the use of this technology. The implementation of digital solutions becomes the main focus point in digital transformation in universities.

In the context of universities, which are the focus of this study, the implementation of GPS-based digital solutions shows significant transformation in employee attendance management. This implementation process creates remarkable changes in how universities record and manage employee attendance. The case studies conducted involved direct observation, providing a deep understanding of the daily dynamics related to the implementation of these digital solutions. With the integration of GPS-based solutions, universities have shifted from conventional systems to a more efficient and digitally connected approach. Direct observations in various work units within universities revealed that these solutions not only provide more modern and efficient alternatives in recording attendance but also facilitate access and monitoring of attendance throughout the campus.

In the complex environment of universities involving lecturers, administrative staff, and various academic units, the implementation of GPS-based solutions has had a significant impact. The research results indicate that the implementation of this technology has improved the accuracy of attendance recording, minimizing potential human errors that may occur in conventional systems. GPS-based solutions also enable the management of employee attendance without significant physical limitations. Lecturers or administrative staff involved in activities outside the campus can easily have their attendance recorded

without geographical constraints. This opens up space for greater flexibility in human resource management, supporting connectivity among team members in various locations.

Digital solutions not only facilitate administrative processes but also have a positive impact on employee discipline. Employees, including lecturers and administrative staff, show a tendency to be more disciplined in following rules and attendance procedures. They are aware that GPS-based solutions provide convenience and accuracy in attendance recording, creating individual responsibility for punctuality. Observations of daily dynamics in various work units highlight that adaptation to these digital solutions does not occur unilaterally. Lecturers and administrative staff are involved in the implementation process, and training is provided to ensure a good understanding of the use of GPS-based solutions. This creates a work environment that supports smooth transition and active participation from all relevant parties.

The research findings indicate that the implementation of GPS-based digital solutions has brought fundamental changes in employee attendance management in universities. From manual attendance recording or using specialized hardware, universities have taken significant steps towards more efficient, affordable, and digitally connected solutions. This transformation not only involves technological aspects but also involves changes in culture and norms in the university workplace, laying the groundwork for greater operational efficiency and employee discipline.

The research findings on the role of transformational leadership in creating a work environment that supports high levels of discipline in a university are highly prominent. Transformational leaders, in this case, the Rector collaborating with the KABIRO, not only function as administrators but also as change agents shaping an organizational culture that motivates employees to achieve optimal levels of discipline. Overall, universities are entities that have unique work cultures, where academic freedom and creativity of lecturers are valued as essential aspects. Research findings reveal that transformational leaders play a key role in adapting cultural changes related to the use of digital solutions and GPS technology in attendance management.

Transformational leaders in universities not only present a vision for the use of digital technology but have also been able to design a vision that inspires, motivates, and gives meaning to every action taken by team members. In an atmosphere where academic freedom is highly valued, transformational leaders create a vision that provides space for creativity and innovation while emphasizing the importance of discipline in carrying out academic tasks. Transformational leaders in universities are also actively involved in providing individual support to employees. Research findings show that leaders not only serve as high-level decision-makers but also as mentors and facilitators of individual career development. This support includes providing constructive feedback regarding discipline, assisting employees in overcoming barriers that may arise from changes, and creating a positive work climate.

In an environment involving significant changes in employee attendance management, transformational leaders in universities strive to create a balance between implementing technology to improve operational efficiency and ensuring that aspects of academic freedom and creativity are maintained. They understand that these changes are not only

related to systems and procedures but also affect interpersonal dynamics and long-established work cultures.

Observations of daily interactions indicate that transformational leaders strive to create a climate where discipline is seen as an integral part of a shared vision and not as a constraint. They serve as role models who create norms and values related to discipline, motivating employees to internalize desired behaviors. Research findings show that the role of transformational leaders in universities has a significant impact on how employees respond to and adapt to changes in attendance management. Leaders are not only change managers but also motivators and disciplinarians. They create a work environment that supports personal and professional growth while ensuring that operational efficiency and discipline remain the primary focus.

CONCLUSION

In exploring the impact of digital transformation on employee attendance management in the university setting, this research highlights profound changes in the paradigm of employee attendance management, especially with the implementation of GPS-based digital solutions, and the crucial role of transformational leadership in creating a supportive environment for discipline.

First and foremost, the implementation of GPS-based digital solutions has brought about substantial changes in how universities record and manage employee attendance. Research findings indicate that this technology not only provides more modern and efficient alternatives but also shifts the conventional paradigm towards digitally connected solutions. Universities are experiencing a shift from manual methods or specialized hardware towards digital solutions that are more efficient, affordable, and flexibly accessible. GPS-based application solutions offer opportunities to manage employee attendance without significant physical constraints. Faculty or administrative staff involved in activities outside the campus can easily have their attendance recorded, supporting flexibility and interconnectivity among team members in various locations. This transformation not only encompasses operational efficiency but also brings positive impacts on employee discipline. Employees show a tendency to be more disciplined in following rules and procedures, realizing that GPS-based solutions provide convenience and accuracy in attendance recording.

Additionally, the role of transformational leadership emerges as a key factor in shaping an organizational culture that supports high levels of discipline. Transformational leaders not only present a vision related to the utilization of digital technology but also craft a vision that inspires, motivates, and gives meaning to every action of team members. In the context of academic freedom, transformational leaders create an environment where creativity and innovation are still valued, while emphasizing the importance of discipline in performing academic tasks. Transformational leaders also provide individual support to employees, not only as high-level decision-makers but also as mentors and facilitators of individual career development. This support includes providing constructive feedback related to discipline, helping employees overcome barriers related to change, and creating a positive work climate.

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