ABSTRACT - Several leadership specialists have studied the impact of principals' transformational leadership on school administration. Yet, studies and research on the digital transformational leadership of school administrators have received little attention from academics. As the COVID-19 pandemic has caused countries all over the globe to switch to online teaching and learning paradigms, it is imperative to close the gap. The principal had to adopt a new position as a digital leader, working online with teachers and students, according to the changing circumstances. The goal of this study is to ascertain how school principals' leadership in digital transformation during COVID-19 in senior secondary schools in Education District V, Lagos State, Nigeria, and teachers' organisational commitment and work satisfaction are related. Information from 300 educators in the School District is used to support the research. The results show that principals' digital transformational leadership and teachers' organisational commitment have a strong significant and positive relationship. They also show a strong significant and positive relationship between principals' digital transformational leadership and teachers' job satisfaction. The findings of this study reveal that principal digital transformational leadership behaviour play a critical role in fighting the COVID-19 pandemic by encouraging teachers to be creative, innovative, and undertaking active actions for the achievement of organisational commitment and job satisfaction, as well as to ensure the school organisation’s sustainability. Based on these conclusions, the study suggested that the Lagos State government, through the Education District V, should support professional development initiatives like conferences, workshops, seminars, and training for secondary school teachers to keep their knowledge current, particularly their knowledge of digital technology.

1.0 INTRODUCTION

To enhance remote learning and serve the needs of the school rather than their own, principals' digital transformational leadership encourages teachers to change their attitudes, perceptions, skills, and motivations by using digital communication technology. Researchers have hypothesized that a transformative leadership style might be crucial in balancing the stress that the pandemic put educational institutions and workers under [1]. During the COVID time, several researches evaluated transformational leadership styles in schools and their beneficial benefits, but few works focused on digital transformational leadership in higher education [2]. Yet, no works have examined the digital transformative leadership of principals in Nigeria secondary education generally or during the pandemic specifically. The COVID-19 pandemic epidemic, which occurred two years ago, created a challenge to routines and everyday living [3] [4]. Education was one of the most impacted areas of activity [5]. Changes in teaching and learning methods, including the use of online learning and virtual teams, were required of students, instructors, and educational leadership [5][6]. Thus, there is a gap in our knowledge of how this leadership operates and how it relates to positive outcomes. The present study addresses this gap by investigating the effect of principals’ digital transformational leadership on teachers’ organisational commitment and job satisfaction during COVID-19 in Lagos State Education District V, Nigeria.

The use of online communication technologies has changed the work environment and produced new challenges for leadership [7], among others, in public sector organisations [8]. The effect of virtual communication on the relations between followers and leaders is a new field of empirical exploration [9]. Scholars have found that in virtual teamwork leaders and individuals need to have good communication skills, initiative, and the ability to use technology [10] [8]. The application of transformational leadership behaviours in virtual environments is an emerging topic for investigation. Early works found that transformational leadership is an important aspect of online leadership because it plays a crucial role in virtual teams [11].
Virtual manifestations of transformational leadership have been explored mainly in higher education. Transformational leadership behaviour in adults’ online teaching and learning environment is manifested in the following ways [2]: it provides students with opportunities to ask questions; increases the extent to which students feel that their concerns are addressed by teachers; and inspires students to achieve challenging goals. In higher education research, instructors’ transformational leadership behaviour characteristics have been found to affect students’ satisfaction and learning outcomes [7]; [2], and students’ transformational leadership behaviours have been found to be key contributors to students’ teamwork in e-learning tasks Zhang et al. [12].

1.1 **Online Setting, Transformational Leadership and Organisational Commitment**

Leadership scholarship has emphasized the role of leaders in developing and supporting employees’ organisational commitment [13]; [14]. Organizational commitment is defined as “a strong psychological attachment or bond towards a specific organization, which can be driven by internal motives such as identification or by external normative pressures” [15]. Most of the empirical research in general and educational management studies focused on affective organizational commitment (the emotional attachment to the organization that produces participation in organizational activities, and enjoyment of being a member in the organization) [16]; [15]; [17]. In education, a great deal of research attention has been paid to the connection between principals’ transformational leadership and commitment. Various studies confirmed a strong and positive relationship between transformational leadership and affective organizational commitment [16]; [15]; [13]; [18]; [19]. Transformational leaders provide socio-emotional support to followers and raise the emotional appeal of organisational activities and of the future, thereby developing their employees’ affective commitment and attachment to the organisation [16]; [13].

The outbreak of COVID-19 had forced organisations, including schools, in many countries to adopt their work to virtual teamwork to ensure the continuity of organisational activities [20]. The management of virtual teams requires the understanding of people, technology, process, trust, and empowerment, as well as the ability to overcome obstacles to the effectiveness of the remote team [8]; [21]. One of the hallmarks of effective virtual teamwork is members’ organisational commitment [22]. The literature indicates that team leadership is instrumental for cultivating virtual team members’ organisational commitment [21], specifically when it adopts transformational leadership behaviours [23].

1.2 **Transformational Leadership and Teachers’ Job Satisfaction**

The assumption that successful organisations and educational institutions are governed by leaders who provide the circumstances for their personnel to feel content at work is supported by arguments in recent literature on the topic. At the moment, making sure employees are happy has been raised to one of the most important duties that individuals in control of organisations should do [24]. Because of this, research on the relationship between leadership and work happiness is still being conducted, and interest among scholars is still quite high. While research on the relationship between transformative leadership and teachers’ work satisfaction are few in number [25]; [26], their results are especially noteworthy. The results of a survey conducted by [19] on a sample of 387 teachers for 42 primary and secondary schools in Iran revealed that the teacher’s relationship with the principal plays a role in both external and internal motivation for greater job satisfaction. The survey’s goal was to examine the implications of transformational leadership in job satisfaction and commitment to the organisation. Teachers who have faith in their administrator, the values he or she maintains, and the mission of the school form an emotional bond with the leadership that is related to job happiness. In Ethiopia, [27] polled 320 teachers from 20 secondary schools regarding the connection between transformative leadership and work satisfaction, and the findings were broadly consistent. Teachers’ stated work satisfaction proved to be substantially connected with the transformational principal’s efforts. By acting charismatically, a transformational administrator may inspire teachers, earn their respect and trust, foster two-way communication, and foster a culture of dedication to all of the school’s shared goals.

2.0 **MATERIAL OR RESEARCH METHODS**

A quantitative correlational research design was utilized for this study to examine the relationship between principals’ digital transformational leadership, teachers’ organisational commitment and job satisfaction during COVID-19 in Lagos State Senior Secondary schools, Education District V. During the pandemic, the Lagos State Ministry of Education ordered schools to switch to online learning aiming to protect the health of the staff and students. Convenience sampling was used method because of COVID-19-related obstacles. In total, 300 teachers were used as respondents for the survey questions, which represent 33% of the teachers teaching in the Education District V of the State. The sample was gender diverse with about 47% female teachers. Most of the teachers which represent about 97% had an undergraduate academic degree. Participated teachers were largely experienced teachers, with about 68% in the seniority cadres.

To evaluate the leadership of principals, the [29] transformational leadership scale was used. The seven questions on the scale were modified by the researchers to assess the transformational leadership of principals in terms of digital compliance. Teachers indicate their level of agreement with the statements on a 5-point Likert scale (1=strongly disagree to 5=strongly agree).

The researchers employed the affective organisational commitment of [30] to measure this parameter since a lot of the research on organisational commitment focuses on the positive affective side of commitment [15]. There are six things on the scale. A 5-point Likert scale was used to rate the degree of agreement (1=strongly disagree to 5=strongly agree).
On teachers’ job satisfaction, job satisfaction survey of [31] was adapted with necessary modifications and it was based on a 5-point Likert scale (1=strongly disagree to 5=strongly agree).

The data was analyzed using inferential statistics of the Pearson Product-Moment Correlation Coefficient to test the hypotheses since it is said to forecast the relationship between the variables. The hypothesis was evaluated using the Statistical Package for Social Sciences (SPSS) 24.0 version at the 0.05 level of significance.

3.0 FINDING

H₀₁: There is no significant relationship between Principals’ Digital Transformational Leadership and Teachers’ Organisational Commitment

Table 1. Correlation analysis of the relationship between Principals’ Digital Transformational Leadership and Teachers’ Organisational Commitment

<table>
<thead>
<tr>
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<th>Principals’ Digital Transformational Leadership</th>
<th>Teachers’ Organisational Commitment</th>
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<tbody>
<tr>
<td><strong>Principals’ Digital Transformational Leadership</strong></td>
<td><strong>Pearson Correlation</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Sig.(2-tailed)</strong></td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>284</td>
<td>284</td>
</tr>
<tr>
<td><strong>Teachers’ Organisational Commitment</strong></td>
<td><strong>Pearson Correlation</strong></td>
<td>0.768</td>
</tr>
<tr>
<td></td>
<td><strong>Sig.(2-tailed)</strong></td>
<td><strong>.000</strong></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>284</td>
<td>284</td>
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</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

Table 1 show that “the correlation coefficient for principals’ digital transformational leadership is significantly related with teachers’ organisational commitment. This is demonstrated by the correlation coefficient r = 0.768, which demonstrates that there is a strong significant and positive relationship between principals’ digital transformational leadership and teachers’ organisational commitment”. The result implies that principals’ digital transformational leadership has significant relationship with teachers’ organisational commitment.

H₀₂: There is no significant relationship between Principals’ Digital Transformational Leadership and Teachers’ Job satisfaction.

Table 2. Correlation analysis of the relationship between Principals’ Digital Transformational Leadership and Teachers’ Job satisfaction

<table>
<thead>
<tr>
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<th>Principals’ Digital Transformational Leadership</th>
<th>Teachers’ Job Satisfaction</th>
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<tbody>
<tr>
<td><strong>Principals’ Digital Transformational Leadership</strong></td>
<td><strong>Pearson Correlation</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Sig.(2-tailed)</strong></td>
<td><strong>.000</strong></td>
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<tr>
<td><strong>N</strong></td>
<td>284</td>
<td>284</td>
</tr>
<tr>
<td><strong>Teachers’ Job Satisfaction</strong></td>
<td><strong>Pearson Correlation</strong></td>
<td>0.721</td>
</tr>
<tr>
<td></td>
<td><strong>Sig.(2-tailed)</strong></td>
<td><strong>.000</strong></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>284</td>
<td>284</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

Table 2 show that, “correlation coefficient for principals’ digital transformational leadership is significantly related with teachers’ job satisfaction. This is demonstrated by the correlation coefficient r = 0.721, which demonstrates that there is a strong significant and positive relationship between principals’ digital transformational leadership and teachers’ job satisfaction”. The result implies that principals’ digital transformational leadership has significant positive effect on teachers’ job satisfaction. Therefore, the stated null hypothesis was rejected.

4.0 DISCUSSION

The COVID-19 pandemic has mobilised many education systems to use online teaching and learning, which has led to a fundamental transformation of conventional leadership communication. Online teaching and learning created a situation that threatened the virile state of school organisation and was depicted by skepticism and inscrutableness [32]; [33], and in which the leader played a key stabilising role [34]. Previous studies explored digital transformational leadership only in higher education [7]; [2]; Zhang et al., [12], and the understanding of how this leadership is related to classic desired results, such as organisational commitment and job satisfaction is lacking.
The findings shed light on the centrality of digital transformational school leadership during the COVID-19 pandemic. Various studies have confirmed earlier claims about the dominance of transformational leadership during an organisational crisis [35], in particular leadership in its digital form [11]. The study also advances knowledge on how online communication technologies change the work environment in public sector organisations including education organisation [8], [36] suggested that interactions with information technology and physical distance may change both leadership behaviours and the bonding processes between leaders and followers. The present research has also expanded the limited empirical knowledge on digital school management, which did not address organisational and leadership processes [37]; [38]. During the COVID-19 pandemic, digital platforms served most organisational processes and served as the main communication channel for leadership influence.

The results help to understand how teachers' affective commitment to their classrooms during the pandemic is related to principals' leadership in digital transformation. Despite distant learning, it seems that virtual transformational leadership behaviours encouraged a greater emotional connection with the organisation, as previously stated [23]. Previous research suggested that commitment among instructors is significantly mediated by feelings like excitement, enthusiasm, and pride [39]. These positive emotions are considered integral influences of transformational leadership in routine times [40]. The link between positive emotions and transformational leadership can help explain why in times of crisis organisational commitment was higher [41] despite the known fact that crisis elicits strong negative emotions (e.g. sadness, fright, and anxiety; [42]).

The findings also add to a recent review indicating that teachers’ organisational commitment was a key mobiliser of teachers’ motivational behaviours and perceived school effectiveness [15].

Teachers who are under transformational leadership are more committed to their work and are more satisfied with their jobs. Teachers' dedication to their jobs will rise when administrative leadership adopts a transformative approach [43], [45], who argue that a thorough application of transformational leadership within school administration improves teachers' work satisfaction, bolster this conclusion. The degree of the teachers' job happiness is significantly correlated with the principal's transformative leadership.

Focusing on academic goals, creating a clear vision and defining goals, and supporting ongoing employee professional growth are all traits of transformational leaders. Secondary schools are a good fit for transformational leadership, which may help teachers advance their careers and feel more satisfied at work Anjilus et al., [45]. It is crucial to note that since they build flexible professional connections with teachers, administrators who engage in digital transformational leadership make teachers feel valued. For the school to function as effectively as possible and for teachers to be happy with their jobs, a greater grasp of digital transformational leadership and its role in success is essential.

5.0 CONCLUSION

As a conclusion, a number of researches have shown a connection between transformational leadership and secondary school teachers' organisational commitment and job satisfaction. This study concluded that the components of transformational leadership can be used to resolve any problem. Digital Transformational leaders use their skills to enhance teachers’ capabilities to develop their innovation and creativity. Findings of this study serve as leverage for building a turning point establishment for accelerating and maximising the role of digital transformational leadership in the school, as COVID-19 has ushered in the need for it. Moreover, a leader's motivating skills and attention of each team member as a component of transformational leadership may be used to address teachers' unhappiness with pay and benefits. Transformational leadership boosts teachers' work happiness, as research has clearly shown. Theoretically, this research may advance the body of knowledge on teachers’ organisational commitment, job satisfaction, and digital transformational leadership, especially in secondary schools. This study is thus anticipated to inspire more research on the relationship between secondary school teachers’ organisational commitment and job satisfaction and digital transformational leadership.

6.0 ACKNOWLEDGEMENT

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7.0 CONFLICT OF INTEREST

The research, authorship, and/or publication of this article have no potential conflicts of interest as declared by the authors.
8.0 REFERENCES


