Sustainable employee performance in the 4IR: intra-organizational social capital, job burnout, and organizational reward as correlates

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**ABSTRACT**

The correlational impact of intra-organizational social capital, job burnout, and organizational reward in sustaining employee performance in the 4IR was evaluated in this paper. Four Hundred (400) employees of the following four businesses in the Nigerian states of Oyo and Lagos were given questionnaires on purpose: First City Monument Bank Plc, British American Tobacco Nigeria, Health Emergency Initiative, and Eko Pearl Towers. The current researcher encouraged voluntary participation and ensured that moral standards were upheld. There were found and appropriately concluded 377 surveys in total. The data was cleaned up and analyzed using SPSS version 29 of the statistical package for social sciences. This study demonstrates how organizational rewards and intra-organization social capital significantly impact employee performance. Job burnout negatively impacts it. Additionally, the study discovered that job burnout, organizational reward, and intra-organizational social capital had a significant and combined impact on employee performance.

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**Introduction**

The effects of revolutions have fundamentally altered our societies during the last three centuries. The Fourth Industrial Revolution (4IR) of the modern era and the accelerating technological innovation rate seek to transform how information and services are provided and disseminated (Rahman & Abedin, 2021). According to (Kagermann et al., 2013), the industrial revolution has four phases. The initial change was heavily mechanization-oriented in the latter half of the eighteenth century. Beginning in the early twentieth century, the next revolution concentrated on large-scale manufacturing. But in the 1970s, as microchips, automation, and information technology systems grew, the 3IR was also introduced. The fourth industrial revolution is already underway, and it includes innovations like cyber-physical systems (CPS), artificial intelligence (AI), 3D printing, cloud computing, the internet of things, better materials, driverless automobiles, big data analytics, and other cutting-edge digital technologies (Vaidya et al., 2018). By ensuring that individual energies are connected to organizational goals, good employee performance management should contribute to the success and profitability of enterprises (Cushway, 2015). Increasing employee performance levels continues to be the most important maxim for every company. Therefore, understanding how important employee performance is to an organization’s success is crucial when analyzing factors that can raise employee performance (Mishra et al., 2020; Bukhtiarova et al., 2022). The Fourth Industrial Revolution frequently needs cross-functional working relationships and interdisciplinary knowledge. Hence, employees can improve performance by working well in teams, collaborating across departments, and integrating information from many fields (Brown et al., 2020).

A company’s internal relationships, networks, and social interactions that support developing and sharing important assets like knowledge and information among its staff are known as intra-organizational social capital. In the context of the Fourth Industrial
Revolution, social capital has received considerable attention (Lee & Choi, 2019). Communication technology has advanced thanks to the Fourth Industrial Revolution, including social media sites, teamwork apps, and virtual reality. These technologies make it easier for workers to share information and expertise, increasing intra-organizational social capital (Murovec & Prodan, 2009). Organizations must promote a culture of continual learning in the Fourth Industrial Revolution, as information and skills quickly become outdated. Employees with strong intra-organizational social capital may efficiently access and exchange knowledge, work together on projects, and benefit from one another’s skills (Lee & Choi, 2019).

Job burnout is a common problem that has grown in importance in the Fourth Industrial Revolution (4IR) context. While technological advancements can potentially increase productivity and efficiency, they also contribute to work intensification and job burnout (World Economic Forum, 2016). The widespread use of technology has blurred the distinction between work and personal life. As a result, employees may feel pressured to be available and responsive at all times, resulting in a lack of downtime and an imbalance between work and personal life, contributing to burnout (Taraldal et al., 2019). Ahola et al. (2021) suggested that a higher reliance on digital tools and communication platforms may lead to higher levels of burnout.

The demand for talent is changing as automation and artificial intelligence advance. Employees should be rewarded and motivated by their ability to learn and develop new skills related to Industry 4.0 technology (Brown et al., 2020). Greater connection and options for remote labor characterize Industry 4.0. Businesses can, therefore, provide incentives that encourage work-life balance, such as flexible work hours, remote work choices, and benefits that support well-being, to draw in and keep top talent (Brown et al., 2020). Organizations should concentrate on giving staff non-financial benefits and recognition in addition to monetary ones. This can include opportunities for professional advancement, public recognition of accomplishments, and an environment encouraging collaboration and innovation (Weill & Woerner, 2018).

With the introduction of the 4IR, businesses face various difficulties concerning employee performance in several developing nations (such as Nigeria).

It makes sense to study the various difficulties businesses in several developing nations (such as Nigeria) may encounter concerning employee performance if they fail to adhere to the necessary standards for achieving sustainable employee performance. To establish a realistic starting point for achieving and maintaining high employee performance in the 4IR, this research looks into a few correlates of employee performance in Nigeria’s enterprises.

**Literature Review**

This investigation’s literature review explores Intra-Organizational Social Capital, Job Burnout, Organizational Reward, and Employee Performance.

**Intra-Organizational Social Capital and Employee Performance**

A company’s social relationships, networks, and resources are called intra-organizational social capital. It includes the interactions between co-workers, their shared standards and beliefs, and their sense of trust and cooperation. These social capital components help the organization’s internal communication, knowledge exchange, teamwork, and problem-solving (Clopton, 2011). As part of the Fourth Industrial Revolution (4IR), the connection between intra-organizational social capital and employee performance has also drawn considerable attention from academic studies. In the 4IR era, defined by the fusion of digital technology and automation, social capital inside firms is essential for improving employee performance and adjusting to the shifting workplace (Hoang & Troung, 2021). Higher levels of intra-organizational social capital have been found to benefit employee performance in the 4IR. Employees are more likely to participate in knowledge sharing, creativity, and team problem-solving if they have strong social ties and access to essential resources within their firm. In the face of organizational change and technology improvements, this increases productivity, creativity, and flexibility (Vial, 2019). By promoting knowledge sharing and learning in the 4IR, Hoang and Troung (2021) found that social capital within firms positively impacted employee performance. Based on those mentioned above, the following is postulated:

**H₁**: In the 4IR, employees’ performance in Nigerian businesses significantly correlates with intra-organizational social capital.

**Job Burnout and Employee Performance**

Job burnout describes a condition of persistent physical and emotional tiredness brought on by long-term exposure to high-stress levels at work (Topicic et al., 2016). A condition known as “job burnout” is brought on by extended exposure to stressful work-related situations and is characterised by a known state of physical, emotional, and mental tiredness. Job burnout still affects a large number of employees in various companies (Zaid, 2019). According to Demerouti et al. (2019), lower employee performance was linked to higher levels of burnout. Yener et al. (2021) argued that burnout negatively impacted cognitive functioning and reduced employees’ performance on complex tasks. Furthermore, Burnout was negatively correlated with innovative work behaviors, according to (Halbesleben & Leon, 2014). Demerouti and Peeters (2018) noted that employee performance—including task performance and organizational citizenship behavior—was inversely correlated with burnout. The following hypothesis was developed in light of the information above:

**H₂**: Organizational job burnout has a strong correlation with employee performance in Nigerian organizations, according to the 4IR.
Organizational Reward and Employee Performance

Organizations must recognize and motivate staff who successfully learn and use digital skills as technology becomes more widespread. This can be accomplished through upskilling and digital literacy-focused training programs, certifications, and job growth possibilities (World Economic Forum Boston Consulting Group, 2018). Ibrar and Khan (2015) noted that financial and non-financial rewards are significantly connected with employee performance. According to (Ranjan, 2016), rewards are critical method organizations use to inspire their workforce. To remain competitive, every corporation needs skilled and motivated human resources in the fiercely competitive business environment. According to Antoni et al. (2015), non-financial incentives, such as praise, opportunities for professional growth, and flexible work schedules, were particularly effective at inspiring employees and raising their performance in the context of the 4IR’s shifting workplace dynamics. According to Jiang et al. (2012), employee performance is positively impacted by intrinsic rewards such as challenging work assignments, autonomy, and chances for learning and skill improvement. In light of the literature mentioned above, the following hypotheses are stated:

H₁: Organizational rewards and employee performance in Nigeria are substantially correlated according to the 4IR.

H₂: Job burnout, organizational reward, and organizational social capital all have a significant and combined impact on ensuring sustained employee performance inside Nigeria’s businesses in the 4IR era.

Research and Methodology

A cross-sectional survey methodology was used in this investigation. Four hundred (400) employees of the following four companies in the Nigerian states of Oyo and Lagos: First City Monument Bank Plc, British American Tobacco Nigeria, Health Emergency Initiative, and Eko Pearl Towers were purposefully given surveys. The present researcher promoted voluntary participation and ensured adherence to ethical principles. Three hundred and seventy-seven (377) surveys were located and appropriately concluded. Statistical Packages for Social Sciences (SPSS version. 29) was used to clean up and analyze the retrieved data. However, this research conducted factor and reliability analyses to design a suitable instrument and recognize the local reliability of the measure.

Sections of this investigation’s survey include:

Section A – Respondents’ demographics

This section covers the demographic information of the respondents, such as age, gender, educational attainment, and job experience (measured in years).

Section B – Intra-organizational Social Capital Scale (I-OSCS)

The intra-organizational social capital scale from Carmeli and Gittell (2009) was used in this study. There are 5 items in the instrument. The overall measure’s dependability coefficient was α = .74. The current study, however, came at a coefficient of α = .79. Each statement received a 5-point Likert-style answer response. One example of a scale item is "I get help from my colleagues at work."

Section C – Job Burnout Scale (JBS)

The Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1982) scale was utilized to measure how burned out the participants felt about their work. The three MBI subscales are emotional exhaustion, depersonalization, and personal accomplishment. Five items on each subscale are graded on a 5-point Likert scale. “I feel emotionally drained from my work” is an example of the emotional exhaustion subscale, “I have become more callous toward people since I started this job” is an example of the depersonalization subscale, and “I feel I am positively influencing other people’s lives through my work” is an example of the personal accomplishment subscale. The consistency coefficient for this measurement was α = .83. However, the dependability coefficient for this investigation was equal to α = .86.

Section D: Organizational Reward Scale (ORS)

The study adopted a 21-item organizational incentives measure (Antoni et al., 2015). The seven subscales of the test include pay and benefits, appreciation and recognition, career development, work-life balance, job security, work environment, and performance-based incentives. There are three (3) elements per subscale in total. The entire measure’s initial alpha coefficient was equal to α = 0.86. The respective reliability coefficients for the subscales were α = .78, α = .84, α = .88, α = .87, α = .82, α = .85, and α = .79. The present study’s reliability coefficient for the overall measure was α = .89. This scale has a 5-point Likert answer layout.

Section E: Employee Performance Scale (EPS)

This unit includes measures of perceived employee performance. The investigation conducted by Na-Nan et al. (2018) employed this scale. It contained a total of 13 items and was broken down into three sub-sections: Job Time (4 items), Job Quality (5 items), and Job Quantity (4 items). The reliability coefficients for the Job Time, Job Quality, and Job Quantity were α = .86, α = .88, and α = .84, respectively. This study found a dependability coefficient of α = .90 for the job time, α = .91 for the job quality, and α = .93 for the job quantity. The present study’s reliability coefficient was α = .91, compared to the overall measure’s reliability value of α = .89. Concerning each statement, a 5-point Likert-style answer scale was used.
To identify potential issues earlier and confirm the measure’s efficacy, a pilot study was done for the current investigation.

Results

The analytical findings from the participant data are shown in the tables below.

Table 1: The Zero-order correlations between the correlates and employee performance in Nigeria’s business organizations

<table>
<thead>
<tr>
<th>Study Variables</th>
<th>Pearson Correlation</th>
<th>Job Burnout</th>
<th>Organizational Reward</th>
<th>Employee Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-Organizational Social Capital</td>
<td>1</td>
<td>-.716**</td>
<td>.773**</td>
<td>.802**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>377</td>
<td>377</td>
<td>377</td>
<td>377</td>
</tr>
<tr>
<td>Job Burnout</td>
<td>-.716**</td>
<td>1</td>
<td>-.810**</td>
<td>-.865**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>377</td>
<td>377</td>
<td>377</td>
<td>377</td>
</tr>
<tr>
<td>Organizational Reward</td>
<td>.773**</td>
<td>-.810**</td>
<td>1</td>
<td>.818**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>377</td>
<td>377</td>
<td>377</td>
<td>377</td>
</tr>
<tr>
<td>Employee Performance</td>
<td>.802**</td>
<td>-.865**</td>
<td>.818**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>377</td>
<td>377</td>
<td>377</td>
<td>377</td>
</tr>
</tbody>
</table>

Source: Author’s Findings

Table 2: A multiple regression showing the combined influence of I-OSC, JB, and OrgR on EP

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.876*</td>
<td>.863</td>
<td>.862</td>
<td>1886.241</td>
<td>&lt;.001b</td>
</tr>
</tbody>
</table>

Note: a. Dependent Variable: Employee Performance; b. Predictors: (Constant), Intra-Organizational Social Capital, Job Burnout, Organizational Reward

At \( r = 0.802; p<.001 \), the resulting matrix in Table 1 demonstrates a statistically significant positive correlation between intra-organizational social capital and employee performance. This implies that employees in Nigeria’s business organizations who have built a lot of intra-organizational social capital perform better in the present 4IR era. The results also show a considerable negative correlation between employee performance and job burnout \( (r = -0.865; p<.001) \). This suggests that increased employee job burnout leads to poor performance in Nigeria’s business organizations in the present 4IR era. Additionally, the results show a significant positive correlation between organizational reward and employee performance \( (r = 0.818; p<.001) \). Therefore, organizational reward indicates healthy employee performance in Nigeria’s businesses in the current 4IR era.

The model shown in Table 2 further states that in the current 4IR era, employee performance in Nigeria’s businesses is significantly and favorably impacted by intra-organizational social capital, job burnout, and organizational reward \( (R^2 = .863, F = 1886.241, p<.001) \). Based on this finding, employees in Nigeria’s businesses could attribute 88% of perceived changes in their performance to intra-organizational social capital, job burnout, and organizational reward. The remaining 12% was attributed to additional elements not examined in this research. Hence, the model in Fig 1:
Figure 1: The independent and joint correlational effects of intra-organizational social capital, job burnout, and organizational reward on employee performance within Nigeria’s businesses in the present 4IR era.

Discussion

In Nigerian businesses operating in the 4IR era, this study found a positive and significant association between intra-organizational social capital and worker performance. According to the findings, organizations with higher intra-organizational social capital have better employee performance during the 4IR period. The current results corroborate a prior study (Hoang & Troung, 2021) that intra-organizational social capital is crucial for enhancing employee performance. This finding further supports (Vial, 2019)’s claim that staff members with strong intra-organizational social capital are more likely to perform better within their organization. Additionally, Hoang and Troung (2021) discovered that social capital within enterprises favorably affected employee performance, supported by the current findings.

According to this research, the fourth industrial revolution employee performance has a strong and adverse association with job burnout. The results suggest that employees’ performances in the fourth industrial revolution will be worse the more pressed they are at work. This outcome is consistent with Demerouti’s (2019) finding that higher degrees of burnout are related to decreased employee performance. The current finding supports Yener et al. (2021)’s results that burnout adversely affects cognitive functioning and reduces workers’ performance on complicated tasks. The present research also confirms (Demerouti & Peeters, 2018), who found a negative relationship between employee performance—including task performance and organizational and civic behavior—and burnout.

In addition, this study discovered that organizational reward in the fourth industrial revolution strongly and favorably correlates with employee performance. The results suggest that monetary and non-monetary rewards enhance employee performance in the 4IR era. This result aligns with the findings of Ranjan (2016), who discovered a significant correlation between employee performance and monetary and non-monetary rewards. The current result also supports the conclusion from Jiang et al. (2012) that, in the context of the 4IR’s shifting workplace dynamics, non-financial incentives, such as praise, chances for professional growth, and flexible work schedules, were particularly effective at inspiring employees and boosting their performance. The current research also confirms Carmeli and Gittell (2009), who claimed that intrinsic rewards, including demanding work assignments, autonomy, and learning and skill development opportunities, favor employee performance.

This study has further shown how employee performance in Nigerian businesses operating in the 4IR period was considerably and favorably influenced by intra-organizational social capital, job burnout, and organizational reward. As a result, in Nigeria, during the 4IR period, these independent variables were responsible for an 88% difference in employee performance. The remaining 12% of the variance in employee performance in Nigerian enterprises operating in the 4IR era is due to factors not considered in the current study.

In addition, this article develops an essential model Nigerian organizations can use to motivate and sustain exceptional employee performance in the 4IR (see Fig. 2). Hence, the design in Fig. 2.
Figure 2: A model to encourage and sustain high employee performance in the 4IR within Nigerian companies. Source: Author’s results

Contribution

The clinical practice of motivating and sustaining exceptional employee performance in Nigerian organizations in the 4IR.

Conclusion

According to the findings of this study, organizational reward and intra-organizational social capital positively affect employee performance inside Nigerian enterprises in the 4IR age. On the other hand, job burnout negatively affects employee performance. However, the following suggestions are essential to take into account:

i. In the current fourth industrial revolution era, management in Nigeria’s enterprises must urgently develop and boost employee interactions, shared standards and ideals, and their sense of trust and cooperation.

ii. Besides, management in Nigeria’s businesses should adopt consistently and encourage monetary and non-monetary employee compensations, motivating human resources in the fiercely competitive business environment to remain competitive.

iii. Moreover, the management of Nigerian businesses should increase different strategies of support to their employees, helping to reduce their job stress in the current demanding work environment.

The findings of this study will assist management in Nigerian businesses in growing and enhancing employee relationships, shared norms and values, and their sense of trust and cooperation. Additionally, it will help them implement consistent financial and non-financial employee compensations, which will encourage human resources in the intensely competitive corporate climate to maintain competitiveness. Also, this study provides them with methods for reducing workers' stress in the demanding workplace.

Future studies should use a mixed-methods approach to investigate the issue to understand better the correlates and influences of employee performance in the 4IR.

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Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy.

Conflicts of Interest: The authors declare no conflict of interest.

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