SUSTAINING ORGANIZATIONAL PERFORMANCE AND EMPLOYEE WELLBEING IN THE 4IR: THE IMPACT OF LEADERSHIP 4.0, PSYCAP, AND HIGH-PERFORMANCE HR PRACTICES

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Abstract

This paper investigates perceived leadership 4.0, psychological capital (PsyCap), and high-performance human resource practices (HPHRPs) for sustainable organizational performance (OP) and employee psychological wellbeing (EPW) in business organizations. This investigation’s sample was obtained from twenty (20) organizations in Nigeria’s and Ghana’s financial, manufacturing, and service industries. Hence, this comparative study espoused a cross-sectional survey method. Nevertheless, from the 500 surveys floated, two hundred and forty-six (246) surveys were retrieved in Nigeria and two hundred and forty-three (243) in Ghana. A total of four hundred and eight-nine (489) were fit for analysis, done with Statistical Packages for Social Sciences (SPSS v.27). This paper confirms that Leadership 4.0, PsyCap, and HPHRPs independently and significantly increase and sustain excellent organizational performance and employee psychological wellbeing. This paper further notes that Leadership 4.0, psychological capital, and HPHRPs greatly and jointly influence the sustainability of organizational performance and employee psychological wellbeing. Hence, work organizations in Nigeria and Ghana, particularly Ghana, are advised to consider and assume the appropriate leadership styles, such as Leadership 4.0 for the varied circumstances and contests from the fourth industrial revolution. Moreover, employers in Nigeria and Ghana, particularly Nigeria, should always encourage positivity in their employees, using organizational support and positive psychology programs. Besides, the management and leaders in work organizations in Nigeria and Ghana should adopt human resource practices that make employees perceive that their organizations adopt the method of value enrichment, where they are taken as an essential resource for reasonable sustenance.

Keywords: Industrial Revolution, Sustainability, Performance, Wellbeing, Nigeria, Ghana.

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1. Introduction

Over the past three centuries, the influences of revolutions have enormously changed our societies. This world is currently experiencing the Fourth Industrial Revolution (4IR), also described as the technological revolution, which strives to change how services and information are circulated and achieved [1]. Incidentally, [2] indicates four phases of the industrial revolution. The initial transformation happened in the late eighteenth century, concentrating on mechanization. The next revolution materialized at the beginning of the twentieth century and focused on manufacturing in massive amounts. Furthermore, within the 1970s, automation, microchip technology, and IT systems characterized the 3IR. The current and 4IR include artificial intelligence (AI), the internet of things, cyber-physical systems (CPS), 3D printing, advanced materials, autonomous vehicles, big data analytics, cloud computing, and other novel digital technologies [3].

Organizational performance (OP) is measured for diverse hierarchy levels and can be evaluated for individuals, groups, and the whole organization [4, 5] postulate that OP is the output, realized when the tangible result is measured against planned outcomes. Assessments have been increasing with fluctuating views. COVID-19 and The Fourth Industrial Revolution have signifi-
cantly influenced organizational performance [6]. Besides, throughout COVID-19, the implementation of the 4IR accelerated [7, 8], increasing working from home and enhancing OP. However, organizations must focus on the sustenance of organizational performance and its assessment mechanisms [9].

Meanwhile, wellbeing could be psychological or physical, [10, 11] indicated PW as a positive mental, physical, and social state of health. EPW has created a measure of notice and concern by human resources managers and psychologists. Every business requires employees to be in a great mental state to thrive and accept the continuous revolutions in work [12]. A healthy set of employees is essential for sustainability and economic improvement. Employees’ improved health outcomes cause increased productivity and better performance [13]. Hence, individuals’ self-reports on their mental health are becoming a center of passionate public policy discussions [14].

Several leaders need to gain a much deeper understanding of the enormous chances, offered by the 4IR, apart from the challenges it brings. They require leadership strategies to attain success in the real Digital World. [15, 16] opined that Professor [17] pioneered the concept of “Leadership 4.0,” which he did in 2016, to mean a new leadership style. Leadership 4.0 has higher enablement, eagerness, and commitment qualities, which influences positive performance, innovation, learning, and collaboration in organizations from the perspective of the 4IR [18]. Therefore, leaders must instruct workers with the Leadership 4.0 style and inspire intelligent flexibility instead of teaching or controlling [16].

Furthermore, [19] have noted Psychological Capital (PsyCap) as a positive mental resource, having four fundamental proportions, containing resilience (ability to challenge hindrances and get motivated to endure disappointment), hope (sustaining a goal, and, if needed, adjusting it), optimism (having positive dispositions towards the present and future), and efficacy (being confident in attaining success notwithstanding challenges). In recent years, psychological capital has received much attention in an organization’s psychology; it has been considered the newest resource capable of becoming a benefit in an organization’s competition [20].

In the present competitive business situation, businesses focus on efficiency and effectiveness in their operations. This has influenced the focus of management literature on the better use of human resource practices (HRPs) in aligning business and individual performance goals [21]. High-performance human resource practices (HPHRPs) are a package of redefined employee-oriented human resource practices that give people the impression that the organization is work and people-centric [22]. It is a method of value improvement where the organization’s persons are considered an essential resource for viable sustenance [23].

By 2030, Africa’s future workforce will be included in the world’s largest, so in conjunction with the vital infrastructure and skills for technology innovation and use, the 4IR represents a massive prospect for growth [24]. The influence of the 4IR is becoming more evident in Nigeria as the trading standard is moved from usual business to e-commerce [25]. However, there has been little effort in Nigeria, which is not proportionate to her counterparts worldwide. Hence, introducing the fourth industrial revolution requires Nigeria to introduce new streams of income beyond oil and gas, which are declining to a halt [25]. Moreover, the power of a robot-conducted election depends on its potential to lower the cost of conducting elections and increase the integrity of the electoral process. Nations like Rwanda and Ghana have already employed 4IR (robots) to deliver medical essentials to rural health centres [26]. They further noted that Zipline, a California-based robotics company, evaluates that drone technology will deliver essential medical products and services to an estimated twelve million people in Ghana when fully functioning.

Consequently, to comprehend and improve organizational performance and employee psychological wellbeing in Nigeria and Ghana in the 4IR, the current research examines the vital predictors capable of guaranteeing and sustaining performance and wellbeing in business organizations. While the effects of some variables on performance and wellbeing have been studied in previous research, the role that perceived leadership 4.0, psychological capital (PsyCap), and high-performance human resource practices play in sustaining excellent organizational performance and employee psychological wellbeing in the 4IR era, when comparing Nigeria and Ghana,
has not yet been explored. Thus, this paper explores this role in Nigeria’s and Ghana’s business organizations.

1. EPW, Leadership 4.0, and OP

Scholars have built enormous information on OP literature. Owing to the 4IR’s influence on the responsibility of businesses in driving significant transformations and on humanity, Leadership as important to the irregularity of possible harm versus profits to working society and organizations. [18] indicated the importance of Leadership in guaranteeing work organizations’ performance, capabilities, and existence. Thus, the 4IR with agility, innovation, and advanced cognitive flexibility than usual domain know-how may candidly impact organizational performance. This will necessitate management approaches and a fresh leadership style, meeting the stride of the new transformations. [16] noted that, with the ambiguity and confusion, triggered by the 4IR, leaders, organizations, and managers, could acclimatize, invent, and collaborate on the future. Hence, leadership 4.0 considerably influences OP. Leadership 4.0 inspires inventive ideas and ethical and collaborative behaviors essential for potential organizational performance and success in the 4IR era. Psychological wellbeing refers to the lack of sickness and whole social, mental, and physical wellbeing. Scholars have also noted its importance in work. According to [39], the stress of keeping employment in the vibrant 4IR environment adversely influences psychological health. These changes impact individuals’ working environment and employability, affecting their psychological wellbeing. Thus, the following is postulated:

H1: In the fourth industrial revolution, perceived leadership 4.0 is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations.

1. 2. PsyCap, OP, and EPW

Psychological capital is a vital occurrence of the evolving concepts of positive psychology and organizational behavior. Positive psychology concentrates on improving people’s lives, while positive organizational behavior enhances employee performance. Psychological capital is a variable critical to striving for success, human motivation, and organizational performance. Studies have indicated that PsyCap positively influences anticipated organizational outcomes, such as excellent performance, work engagement, job satisfaction, and organizational citizenship behavior. Psychological states motivate employees to apply more significant effort and helpful behaviors, which help achieve good organizational performance. Employees are encouraged to protect and use their psychological capital to increase their wellbeing. Moreover, PsyCap, as a higher-order fundamental construct, prevents employees from suffering from work stress. As an individual means, psychological capital positively correlates with employees’ PW. Employees use PsyCap to enhance performance by concentrating on positive psychological qualities in high pressure and work stresses. The present investigation, thus, hypothesizes:

H2: Psychological capital is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations in the 4IR.

1. 3. H-PHRPs, OP, and EPW

Today, organizations know that employees’ productivity can be better through management strategies and practices, resulting in the improved OP. These practices are mostly called “high-performance human resource practices (HPHRPs).” HPHRPs are used to develop employees’ lives and OP. Studies show that HPHRPs cause a more excellent individual and higher organizational performance and career development plan. Scholars have demonstrated a progressive correlation between HPHRPs and organizational performance. Moreover, [52] opined a significant correlation between HPHRPs and organizational performance. Furthermore, [54] established that high-performance human resources practices impact the psychological wellbeing of employees. This position was supported by [55], that HPHRPs determined employee wellbeing. Moreover, [56] found that HPHRPs positively influence employee psychological wellbeing (i.e., organizational commitment and job satisfaction). Also, [57] indicated an impact of HPHRPs on employee psychological
wellbeing. [58] further suggested that high-performance human resource practices positively affect employee mental wellbeing. [59] added to this information as they noted evidence of a positive relationship between HPHRPs and employee psychological wellbeing. Reinforced by the investigations on HPHRPs, OP, and employee psychological wellbeing, specified above, the current study assumed that:

H3: HPHRPs significantly support excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the fourth industrial revolution.

Consequently, following the indicated literature, the proposition below is expressed:

H4: Perceived Leadership 4.0, PsyCap, and HPHRPs have a significant joint impact in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the 4IR.

This paper increases the literature by investigating perceived Leadership 4.0, psychological capital (PsyCap), and HPHRPs for sustainable organizational performance and employee psychological wellbeing in the 4IR era. This implies a practical standard of inspiring and sustaining excellent OP and EPW in Nigeria and Ghana within the 4IR.

2. Materials and Methods

This investigation is a comparative study that espoused a cross-sectional survey method. This study compared the sustainability of organizational performance and employee psychological wellbeing within Nigeria’s and Ghana’s work organizations in the 4IR era. The author floated questionnaires to investigate this study’s postulations and gather data regarding participants’ views on leadership 4.0, PsyCap, HPHRPs, organizational performance, and psychological wellbeing. Surveys were dispensed to 250 employees from ten work organizations in Nigeria and 250 from ten work organizations in Ghana. Altogether, 500 participants were scouted. These twenty (20) businesses came from Nigeria’s and Ghana’s manufacturing, service, and financial industries. Full Range Microfinance Bank Ltd, United Bank for Africa Plc, First Bank Plc, Guarantee Trust Bank Plc, Nestlé Nigeria Plc, Evans industries Limited, Friesland Campina Nigeria Plc, DHL Courier Service, IBFC Alliance Ltd, and Martyns Consulting Ltd and were the chosen Nigeria’s work organizations. Zenith Bank of Ghana, Fidelity Bank of Ghana, Ecobank Ghana (EBG), Ghana Commercial Bank Limited, De United Foods Industries Ghana Ltd, Interplast Limited, Akosombo Industrial Company Limited, Jaycia Cleaning Services, Optical Global Engineers Ltd, and Fannes Enterprise Services were from Ghana’s work organizations. Hence, the current researchers motivated voluntary participation and guaranteed respect for ethical matters. Two hundred and forty-six (246) surveys were retrieved in Nigeria and two hundred and forty-three (243) in Ghana. A total of four hundred and eight-nine (489) surveys were recovered from both countries and concluded suitably for usage. Data recovered was prepared and analyzed with Statistical Packages for Social Sciences (SPSS vs. 27). However, the present investigation conducted a reliability analysis to realize the measure’s local dependability.

2.1. Instrumentation

This study’s survey has segments:

Section A – Participants’ demographics

It covers the respondents’ demographics, for example, age, gender, level of education, marital status, country, and industry category.

Section B – Leadership 4.0 scale (L4.0S)

This paper adopted the Leadership 4.0 measure from the investigation of (32). This scale is conveyed in three ranges: empowerment, enthusiasm, and engagement. The empowerment measurement comprised five items, and its reliability coefficient was α=0.72, but the present research attains an α=0.89 coefficient. The enthusiasm element included 4 items, with an α=0.82 reliability coefficient, whereas the current investigation achieves a reliability coefficient of α=0.87. The engagement range had 6 items, with a reliability coefficient of α=0.76. The present study achieves a reliability coefficient of α=0.88. Overall, the Leadership 4.0 measure comprised 15 items. Each statement was responded to using a 5-point Likert-type answer standard: “1=Strongly Disagree”, “5=Strongly Agree”.

Section C – Psychological Capital Scale (PsyCapS)
The respondents’ perceived psychological capital (PsyCap) was assessed using the 12-item short-form PsyCap Survey (40). Participants specified their response on a 7-point Likert scale, stretching from “1=strongly disagree to 7=strongly agree”. Consistent with the literature (40; 60), PsyCap was operationalized as a construct with four sub-dimensions: resilience (ability to challenge hindrances and find an enthusiasm to continue in the face of disappointment – \( \alpha=0.84 \)), hope (sustaining a goal, and if needed, adjusting it – \( \alpha=0.88 \)), optimism (having positive dispositions towards the present and future – \( \alpha=0.88 \)), and self-efficacy (having self-confidence in attaining success notwithstanding challenges – \( \alpha=0.84 \)). However, this paper achieved the following Cronbach’s alpha coefficients: resilience – \( \alpha=0.89 \), hope – \( \alpha=0.90 \), optimism – \( \alpha=0.92 \), and self-efficacy – \( \alpha=0.87 \).

**Section D: High-Performance Human Resource Practices Scale (HPHRPsS)**

A 14-item measure of perceived HPHRPs was adopted from the study (61). The initial alpha coefficient for the items was \( \alpha=0.9 \). The current research realized a reliability coefficient of \( \alpha=0.9 \). This scale has a 3-point Likert answer layout: “1=Disagree” to “3=Agree”.

**Section E – Organizational Performance Scale (OPS)**

This section included elements, considered to measure OP, which is fundamental for the 4IR. This instrument was adopted from the research of (32). It has four sub-segments: Digital Risk Management (9 elements), Business Model and Creating Value/Service Orientation (7 items), Human Capital capabilities (8 components), and Individual view of organizational competitiveness/sustainability (2 items). The digital risk management has nine (9) items, as the originator indicated a reliability coefficient of \( \alpha=0.90 \), while the current study realizes a reliability coefficient of \( \alpha=0.95 \). The Business Model and Creating Value Orientation dimensions had 9 statements. It had an original reliability coefficient of \( \alpha=0.89 \), while the present investigation realizes an \( \alpha=0.92 \) coefficient. The human capital capabilities dimension had 8 items, with a reliability coefficient of \( \alpha=0.85 \). A reliability coefficient of \( \alpha=0.93 \) was attained in the present research. The Individual view of organizational competitiveness/sustainability included only one item, having an \( \alpha=0.89 \) reliability coefficient, whereas the current research achieves a reliability coefficient of \( \alpha=0.96 \). All the items of this OP measure were responded to on a 5-point Likert-type answer layout: “1=Strongly Disagree” and “5=Strongly Agree”.

**Section F – Employee Psychological Wellbeing Scale (EPWS)**

This paper used the 22-item scale by (62) to assess employee psychological wellbeing. An initial Cronbach’s alpha \( \alpha=0.89 \) was reported. The measure’s answer format had a 5-point Likert type, reaching from “a little of the time (1)” to “all of the time (5)”. However, the scale’s reliability in this study is \( \alpha=0.90 \).

Nevertheless, this paper piloted a study to detect possible problems ahead and substantiate the instrument’s efficiency.

3. Results

The findings from the data analyzed in this paper are presented in Tables.

**3. 1. Nigeria**

Participants’ demographic data displays that male participants were 149, but 97 were female. Also, it indicates that participants who were 20–34 years old were 144, 75 were 35–49 years of age, and those who were 50 and above were 25. Also, Table 1 indicates that 73 participants were single, whereas 173 were married. Also, the results showed that 97 participants had a Bachelors of Science/Higher National Diploma/Bachelors of Technology certificate, 50 had a Master of Technology/Master of Science, and 99 with other Professional Certificates. Moreover, the current results indicated that 246 participants’ responses were valid for interpretation. Furthermore, Table 1 shows that 99 employees participated from the financial industry, 73 from the service industry, and 74 from the manufacturing industry.

**3. 2. Ghana**

The respondents’ demographic data indicate that 170 respondents were male, whereas 73 were female. It further shows that 20-34 years old participants were 123, 98 were 35–49 years old, while those 50 years and above were 24. Additionally, the table reports that 73 participants were
single, whereas 170 were married. Also, the findings exposed that 49 participants had a Bachelors of Science/Higher National Diploma/Bachelors of Technology certificate, 97 had a Master of Technology/Master of Science, and 97 with other Professional Certificates. Moreover, this paper noted that 243 participants’ responses were useable. Furthermore, Table 1 shows that 97 employees partook from the financial industry, 73 from the service industry, and 73 from the manufacturing industry.

4. Inferential Statistics
Data analysis in the present study has also produced the following inferences (Tables 1–4).

Table 1
Multiple regression, showing the joint influence of Leadership 4.0, PsyCap, and HPHRPs on OP in Nigeria’s businesses

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.992</td>
<td>0.984</td>
<td>0.983</td>
<td>4860.613</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: a. Predictors: (Constant), High-Performance HR Practices, Leadership 4.0, Psychological Capital

Table 2
Measurements of the influencers of organizational performance

<table>
<thead>
<tr>
<th>Influencers</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>Sig</th>
<th>95.0% Confidence Interval for B</th>
<th>R</th>
<th>R²</th>
<th>F (3, 242)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>–53.786</td>
<td>–16.769</td>
<td>0.000</td>
<td>–600.104</td>
<td>–470.468</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership 4.0</td>
<td>0.768</td>
<td>0.793</td>
<td>46.639</td>
<td>0.000</td>
<td>0.735</td>
<td>0.800</td>
<td></td>
<td>4860.613</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Psychological Capital</td>
<td>1.261</td>
<td>1.091</td>
<td>39.222</td>
<td>0.000</td>
<td>1.197</td>
<td>1.324</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High–Performance HR Practices</td>
<td>2.368</td>
<td>0.908</td>
<td>31.274</td>
<td>0.000</td>
<td>2.219</td>
<td>2.517</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: a. Dependent Variable: Organizational Performance

Table 3
Multiple regressions, indicating the combined influence of Leadership 4.0, psychological capital, and high-performance human resource practices on employees’ psychological wellbeing in Nigeria's businesses

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.991</td>
<td>0.983</td>
<td>0.983</td>
<td>4672.936</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: a. Predictors: (Constant), High-Performance HR Practices, Leadership 4.0, Psychological Capital

Table 4
Coefficients of the influencers of employee psychological wellbeing

<table>
<thead>
<tr>
<th>Influencers</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>Sig</th>
<th>95.0% Confidence Interval for B</th>
<th>R</th>
<th>R²</th>
<th>F (3, 242)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>–71.665</td>
<td>–28.515</td>
<td>0.000</td>
<td>–76.616</td>
<td>–66.715</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership 4.0</td>
<td>0.704</td>
<td>0.946</td>
<td>54.579</td>
<td>0.000</td>
<td>0.678</td>
<td>0.729</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Capital</td>
<td>1.201</td>
<td>1.352</td>
<td>47.666</td>
<td>0.000</td>
<td>1.151</td>
<td>1.250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High–Performance HR Practices</td>
<td>2.773</td>
<td>1.384</td>
<td>46.740</td>
<td>0.000</td>
<td>2.656</td>
<td>2.890</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: a. Dependent Variable: Employee Psychological Wellbeing

4. 1. Nigeria
Table 1 revealed that Leadership 4.0, psychological capital, and high-performance human resource practices jointly and significantly sustain excellent OP in Nigeria’s businesses (R=0.992,
R2=0.984, F=4860.613, p<0.01). The p-value is satisfactory, showing that Leadership 4.0, psychological capital, and high-performance human resource practices jointly and significantly induced a 99.2 % variance in OP in Nigeria’s business organizations. Table 3 also indicated that Leadership 4.0, psychological capital, and high-performance human resource practices significantly and jointly sustain employee psychological wellbeing in Nigeria’s businesses (R=0.991, R2=0.983, F=4672.936, p<0.01). Hence, the p-value is enough, showing that Leadership 4.0, psychological capital, and high-performance human resource practices significantly and jointly induced a 99.1 % employee psychological wellbeing variance in Nigeria’s businesses. So, the postulation is partly established that Leadership 4.0, psychological capital, and high-performance human resource practices have a significant joint impact in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations in the 4IR.

Likewise, the model, presented in Table 2, stipulates that Leadership 4.0 positively and significantly sustains excellent OP in Nigeria’s businesses at β=0.793, t=46.639; p<0.01. The p-value is acceptable. Hence, this paper indicates that Leadership 4.0 had about 79.3 % impact on change in OP in Nigeria’s business organizations. Moreover, Table 4 stipulates that perceived Leadership 4.0 positively and significantly sustains employee psychological wellbeing in Nigeria’s businesses at β=0.946, t=54.579; p<0.01. The p-value is suitable. Thus, this investigation shows that perceived Leadership 4.0 made a 94.6 % impact on employee psychological wellbeing variance in Nigeria’s businesses. Hence, the specified proposition, namely, leadership 4.0, is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s businesses in the fourth industrial revolution, is partly confirmed.

The current findings indicate that psychological capital positively and significantly sustains excellent OP in Nigeria’s businesses at β=1.091, t=39.222; p<0.01. The p-value is satisfactory. Thus, this study establishes psychological capital as a perfect influencer (100 %) of positive OP in Nigeria’s businesses. Likewise, they show that psychological capital significantly and positively sustains employee psychological wellbeing in Nigeria’s industries at β=1.352, t=47.666; p<0.01. The p-value is suitable. Hence, this investigation ascertains psychological capital as a perfect influencer (100 %) of employee psychological wellbeing in Nigeria’s business organizations. So, the stated premise is partly accepted: psychological capital is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations in the 4IR.

Also, Table 2 specifies that HPHRPs significantly and positively impact OP in Nigeria’s businesses at β=0.908, t=31.274; p<0.01. The p-value is adequate. Therefore, this study shows that high-performance human resource practices contributed about 90.8 % influence on variance in OP in Nigeria’s business organizations. Similarly, Table 4 specifies that HPHRPs significantly and positively impact employee psychological wellbeing in Nigeria’s business organizations at β=1.384, t=46.740; p<0.01. The p-value is enough. This paper establishes high-performance human resource practices as a perfect influencer (100 %) of employee psychological wellbeing in Nigeria’s business organizations. Thus, the stated postulation, namely, HPHRPs significantly support excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the fourth industrial revolution, is partly confirmed (Tables 5–8).

Table 5

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.984</td>
<td>0.968</td>
<td>0.967</td>
<td>2376.198</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: a. Predictors: (Constant), High-Performance HR Practices, Leadership 4.0, Psychological Capital
Table 6
Coefficients of the predictors of organizational performance

<table>
<thead>
<tr>
<th>Influencers</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>Sig</th>
<th>95.0 % Confidence Interval for B</th>
<th>R</th>
<th>R²</th>
<th>F (3, 242)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-29.003</td>
<td>-7.657</td>
<td>0.000</td>
<td>0.000</td>
<td>-36.465 to -21.541</td>
<td>0.984</td>
<td>0.968</td>
<td>2376.198</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Leadership 4.0</td>
<td>0.888</td>
<td>0.932</td>
<td>34.349</td>
<td>0.000</td>
<td>0.837 to 0.939</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Capital</td>
<td>0.879</td>
<td>0.780</td>
<td>24.989</td>
<td>0.000</td>
<td>0.810 to 0.949</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High–Performance HR Practices</td>
<td>1.739</td>
<td>0.738</td>
<td>20.252</td>
<td>0.000</td>
<td>1.570 to 1.908</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note: a. Dependent Variable: Organizational Performance

Table 7
Multiple regressions, indicating the combined influence of Leadership 4.0, psychological capital, and high-performance human resource practices on employee psychological wellbeing within Ghana’s business organizations

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.978</td>
<td>0.957</td>
<td>0.956</td>
<td>1768.941</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: a. Predictors: (Constant), High-Performance HR Practices, Leadership 4.0, Psychological Capital

Table 8
Coefficients of the influencers of employee psychological wellbeing

<table>
<thead>
<tr>
<th>Influencers</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>Sig</th>
<th>95.0 % Confidence Interval for B</th>
<th>R</th>
<th>R²</th>
<th>F (3, 242)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-41.888</td>
<td>-12.467</td>
<td>0.000</td>
<td>0.000</td>
<td>-48.507 to -35.269</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership 4.0</td>
<td>0.831</td>
<td>1.133</td>
<td>36.238</td>
<td>0.000</td>
<td>0.786 to 0.876</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Capital</td>
<td>0.771</td>
<td>0.888</td>
<td>24.705</td>
<td>0.000</td>
<td>0.710 to 0.833</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High–Performance HR Practices</td>
<td>2.001</td>
<td>1.104</td>
<td>26.277</td>
<td>0.000</td>
<td>1.851 to 2.151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: a. Dependent Variable: Employee Psychological Wellbeing

4.2. Ghana
Table 5 indicated that perceived Leadership 4.0, psychological capital, and HPHRPs practices significantly and jointly sustain excellent OP within Ghana’s business organizations (R=0.984, R²=0.968, F=2376.198, p<0.01). Hence, the p-value is appropriate, suggesting that Leadership 4.0, psychological capital, and high-performance human resource practices jointly and significantly influenced a 97.8 % change in organizational performance within Ghana’s work organizations. Table 7 revealed that Leadership 4.0, psychological capital, and high-performance human resource practices significantly and jointly sustain employees’ psychological wellbeing within Ghana’s business organizations (R=0.978, R²=0.957, F=1768.941, p<0.01). The p-value is enough, showing that Leadership 4.0, psychological capital, and high-performance human resource practices significantly and jointly induced a 97.8 % employee psychological wellbeing variance in Nigeria’s businesses. So, the premise is partly established that perceived Leadership 4.0, psychological capital, and HPHRPs have a significant joint impact.
in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations in the 4IR.

Moreover, the model, presented in Table 6, stipulates that Leadership 4.0 positively and significantly sustains excellent OP within Ghana’s business organizations at β=0.932, t=34.349; p<0.01. The p-value is enough. So, this study indicates that Leadership 4.0 had about 93.3% influence on variance in organizational performance within Ghana’s business organizations. Also, the model in Table 8 stipulates that Leadership 4.0 positively and significantly sustains employee psychological wellbeing within Ghana’s work organizations at β=1.133, t=36.238; p<0.01. The p-value is suitable. Thus, this investigation ascertains perceived Leadership 4.0 as a perfect influencer (100%) of employee psychological wellbeing variance within Ghana’s business organizations. Consequently, the specified assumption, namely, leadership 4.0 is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the fourth industrial revolution, is partly established.

This paper notes that psychological capital significantly and positively sustains excellent organizational performance within Ghana’s business organizations at β=0.780, t=24.989; p<0.01. The p-value is satisfactory. Hence, the present investigation establishes that psychological capital had about 78% effect on variance in organizational performance within Ghana’s work organizations. The present findings indicate that psychological capital significantly and positively sustains employee psychological wellbeing in Ghana’s business organizations at β=0.888, t=24.705; p<0.01. The p-value is suitable. Therefore, this research ascertains perceived Leadership 4.0 as a perfect influencer (100%) of employee psychological wellbeing variance within Ghana’s work organizations. Thus, the stated postulation is partly established: psychological capital is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations in the 4IR.

Besides, Table 6 stipulates that HPHRPs significantly and positively impact OP within Ghana’s business organizations at β=0.738, t=20.252; p<0.01. The p-value is enough. Thus, this investigation indicates that high-performance human resource practices contributed about 73.8% influence on variance in organizational performance within Ghana’s work organizations. Similarly, Table 8 specifies that HPHRPs significantly and positively impact employees’ psychological wellbeing within Ghana’s work organizations at β=1.104, t=26.277; p<0.01. The p-value is enough. So, this paper establishes high-performance human resource practices as a perfect influencer (100%) of employee psychological wellbeing within Ghana’s work organizations. Thus, the stated hypothesis, namely, high-performance human resource practices significantly support excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the fourth industrial revolution, is partly confirmed.

4.3. Comparative Results (Nigeria-Ghana)

The present results established that perceived Leadership 4.0, PsyCap, and HPHRPs have a significant, joint, and positive impact on sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations in the 4IR.

Nonetheless, further investigation shows that psychological capital has a more significant impact on sustaining excellent OP within Nigeria’s work organizations than Leadership 4.0 and high-performance human resource practices. Within Ghana’s work organizations, perceived Leadership 4.0 shows a more significant influence on excellent organizational performance than PsyCap and HPHRPs.

Furthermore, the present results establish that psychological capital and HPHRPs sustain employee psychological wellbeing more than Leadership 4.0 within Nigeria’s business organizations. Instead, Leadership 4.0 and high-performance human resource practices maintain employees’ psychological wellbeing more than psychological capital within Ghana’s work organizations (Fig. 1, 2).
5. Discussion

This research indicated that perceived Leadership 4.0 positively and significantly impacted the sustainability of OP in Nigeria’s and Ghana’s businesses in the fourth industrial revolution. The current results revealed that Leadership 4.0 is more significant in sustaining OP in Ghana’s firms in the 4IR. This observation infers that implementing leadership 4.0 grows excellent OP in Nigeria’s and Ghana’s business organizations in the 4IR but more significantly within Ghana’s work organizations. This result is
according to a previous pragmatic indication that Leadership is fundamental to guaranteeing businesses’ survival and organizational performance abilities [18]. It likewise corroborates [30]’s view that Leadership is critical to the irregularity of possible harm versus profits to working society and organizations. Moreover, this paper confirms the position of [16] that, with the ambiguity and confusion, triggered by the 4IR, leaders, organizations, and managers, could adapt, invent, and cooperate in the future. It also supports the opinion of [31] that the 4IR with agility, innovation, and advanced cognitive flexibility than usual domain know-how may candidly impact OP. The present finding further confirms [32]’s position that Leadership 4.0 inspires innovative, ethical, and collaborative behaviors essential for potential organizational performance and success in the 4IR era.

Moreover, this study has noted a significant and positive impact of psychological capital in sustaining excellent OP in Nigeria’s and Ghana’s businesses in the 4IR. The current results showed that psychological capital is more significant in maintaining perfect OP in Nigeria’s firms in the fourth industrial revolution. The current findings infer that the more employees possess positive cognitive resources, having four underlying proportions, comprising resilience: the ability to challenge hindrances and get motivated to endure disappointment; hope: sustaining a goal and, if needed, adjusting it; optimism: having positive dispositions towards the present and future; and efficacy: being confident in attaining success notwithstanding challenges, the more Nigeria’s and Ghana’s work organizations achieve excellent performance in the 4IR but more significantly within Nigeria’s business organizations. These results add to some researchers’ existing views [41] that psychological capital is vital in the evolving concepts of positive psychology and organizational behavior. This result is also in line with [42–44], and [19]. They indicated that PsyCap positively influences anticipated organizational outcomes, such as excellent performance, work engagement, job satisfaction, and organizational citizenship behaviour. Also, the present result corroborates the view of [44] that positive psychological states motivate employees to apply more significant effort and helpful behaviors, which help achieve good OP.

This paper’s findings proved that HPHRPs significantly and positively impacted the sustainability of OP in Nigeria’s and Ghana’s business organizations in the 4IR. The current results noted that high-performance human resource practices are the second most significant factors that sustain OP in Nigeria’s businesses and the least significant variable within Ghana’s business organizations in the fourth industrial revolution. This finding infers a more excellent OP within Nigeria’s and Ghana’s work organizations as employees perceive that their organizations adopt the method of value improvement where the organization’s persons are considered an essential resource for visible sustenance. Thus, the current results support [50]. They concluded that HPHRPs improve both employees’ lives and OP. These results also authenticate the position of [51] that HPHRPs cause a more excellent individual and higher organizational performance. The current findings further corroborate [52, 53], demonstrating a progressive correlation between HPHRPs and OP. This paper further confirms the position of [52] that there is a significant correlation between HPHRPs and OP.

Moreover, this investigation suggests that Leadership 4.0 positively and significantly impacts employees’ psychological wellbeing in Nigeria’s and Ghana’s businesses in the fourth industrial revolution. The results revealed that Leadership 4.0 is more significant in sustaining employee psychological wellbeing in Ghana’s business organizations in the fourth industrial revolution. This result infers that assuming leadership 4.0 increases excellent OP in Nigeria’s and Ghana’s business organizations in the 4IR but more significantly within Ghana’s work organizations. Hence, it confirms the view of [36–38] that Leadership 4.0 significantly impacts the psychological wellbeing of employees.

The present investigation established a significant and positive impact of psychological capital in sustaining employees’ psychological wellbeing in Nigeria’s and Ghana’s businesses in the 4IR. The results showed that psychological capital is more significant in maintaining employees’ psychological wellbeing in Nigeria’s businesses. The current results infer that the more employees possess psychological capital, the more Nigeria’s and Ghana’s work organizations improve employee psychological wellbeing in the 4IR but more significantly in Nigeria’s business organizations. Hence, this paper confirms [19]’s view that employees are encouraged to protect and use their psychological capital to increase their wellbeing. It also supports [45]’s literature that PsyCap, a higher-order fundamental construct, prevents employees from suffering from work stress. Also, the present result corroborates the view of [19] and [46] that psychological capital positively correlates with employees’ psychological wellbeing.
This paper has further established that HPHRPs have a significant and positive impact on maintaining employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the 4IR. This paper demonstrates that high-performance human resource practices are more significant in maintaining employee psychological wellbeing in Nigeria’s businesses in the fourth industrial revolution. This finding infers a more improved employee psychological wellbeing within Nigeria’s and Ghana’s work organizations as employees perceive that their organizations adopt the method of value improvement where the organization’s persons are considered an essential resource for viable sustenance. However, this position is more significant in Nigeria’s work organizations. Thus, this paper confirms [54]’s view that high-performance human resources practices impact the psychological wellbeing of employees. It also supports [55]’s literature that HPHRPs determined employee wellbeing. Also, the present result corroborates the view of [56] that HPHRPs positively influence employee psychological wellbeing. This study also confirms [58], who suggested that high-performance human resource practices positively affect employee mental wellbeing, and [59] indicated a positive connection between HPHRPs and employee psychological wellbeing [60–62].

Following the results, stated in the paragraphs above, this paper confirms these hypotheses:

– In the fourth industrial revolution, perceived leadership 4.0 is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations.

– Psychological capital is significant in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s work organizations in the 4IR.

– HPHRPs significantly support excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the fourth industrial revolution.

– Perceived Leadership 4.0, psychological capital, and high-performance human resource practices have a significant joint impact in sustaining excellent organizational performance and employee psychological wellbeing in Nigeria’s and Ghana’s business organizations in the fourth industrial revolution.

Furthermore, according to the current findings, this paper significantly implies a practical model to inspire and sustain excellent organizational performance and employee psychological wellbeing in Nigeria and Ghana within the 4IR. Thus, the model in Fig. 3.

![Fig. 3. A practical model to inspire and sustain excellent organizational performance and employee psychological wellbeing in Nigeria and Ghana within the 4IR. Source: Author’s findings](image-url)
Research limitations. The current findings are with some limitations. Firstly, the recent sample was restricted to the employees in Nigeria and Ghana; hence, a future study could compare more countries from other continent regions. Second, this paper adopted a cross-sectional survey design.

The prospects for further research. Moreover, for more investigation, this research recommends mixed-method practical inquiries, which improves the comprehension of the influencers of OP and employee psychological wellbeing in the 4IR.

5. Conclusion

This research concludes that Leadership 4.0, psychological capital, and HPHRPs increase and sustain excellent organizational performance and employee psychological wellbeing. It further notes that Leadership 4.0, psychological capital, and HPHRPs significantly and jointly influence the sustainability of organizational performance and employee psychological wellbeing. So, these stated predictors sustain excellent organizational performance and employee psychological wellbeing in Nigeria's and Ghana's work organizations.

However, the following suggestions are beneficial:

This paper advises work organizations in Nigeria and Ghana, particularly Ghana, to consider and assume the appropriate leadership styles (leadership 4.0) for the varied circumstances and contests from the fourth industrial revolution.

Employers in Nigeria and Ghana, particularly in Nigeria, should always encourage positivity in their employees, using organizational support and positive psychology programs. This increases employees’ positive cognitive resources capable of becoming a benefit in an organization’s competition.

Also, the management and leaders in the work organization should adopt human resource practices that make employees perceive that their organizations adopt the method of value enrichment, where they are taken as an essential resource for reasonable sustenance. These practices are crucial in disabling the challenges, presented by the fourth industrial revolution.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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