

“Human resources practices as a mechanism for improving performance within public institutions and state-owned enterprises in Morocco”

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HUMAN RESOURCES PRACTICES AS A MECHANISM FOR IMPROVING PERFORMANCE WITHIN PUBLIC INSTITUTIONS AND STATE-OWNED ENTERPRISES IN MOROCCO

Abstract

In an economic environment marked by rapid change, characterized by factors such as globalization and increasing demands from stakeholders and clients, public institutions and state-owned enterprises have become significant players through their multiple interventions in providing public services to citizens and businesses, in implementing structuring projects for economic and social development, and in promoting investment. This paper aims to examine the correlation between human resource management and employee performance within Moroccan public institutions and state-owned enterprises to understand how these organizations should manage their human capital to enhance their performance. The sample consists of 67 top executives of Moroccan entities operating in various sectors. Data were collected through a self-administered questionnaire completed by the participants. Partial least squares (PLS) was used to estimate structural equation models and analyze causal relationships between variables. SmartPLS 4 software was employed for model analysis. The findings reveal a positive and significant impact of training, selective recruitment, digital transformation, and performance-based compensation on employee performance improvement. The results indicate that the T-values are 3.126, 2.870, 2.178, and 2.406, respectively. Regarding the Q² value, it stands at 0.899, confirming the model's predictive capability. The GoF coefficient is 0.851, affirming the overall validity of the model. However, it was observed that there is no significant link between job security and performance, as the T-values did not exceed the threshold of 1.64. This study suggests adopting changes in HRM practices to enhance the organizational performance of public institutions and state-owned enterprises.

Keywords

human resources, organizational performance, public institutions and state-owned enterprises, discriminant validity, convergent validity, structural models

JEL Classification

C51, L32, M12, O15, J24

INTRODUCTION

Morocco has achieved numerous accomplishments over the past two decades with a focus on establishing good governance and transparency. The new concept of authority has marked a significant turning point in the evolution of state administrations, making them more capable of serving the public interest and providing high-quality services to citizens. Despite these significant achievements, which have addressed major challenges by improving public services through its political institutions, the development model adopted in 2021, charting the path for the country's development by 2035, faces difficulties hindering the desired human and social development. Public institutions and state-owned enterprises are among these challenges due to structural dysfunctions that make it difficult to keep pace with the



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changes in Moroccan society. These dysfunctions were highlighted by the Parliament and the Court of Auditors in 2016 and by the Special Commission on the Development Model in 2021.

In this context, His Majesty King MOHAMMED VI has issued high-level instructions for launching a comprehensive public sector reform to address the structural dysfunctions of public institutions and state-owned enterprises. Managerial transformation is a crucial aspect of this reform. This transformation aims to revise human resource management (HRM) methods and approaches to reconsider the role of human capital within public institutions and state-owned enterprises. While the human factor was traditionally seen as a support activity to other organizational functions, HRM now represents the function that enables a structure to provide high-quality services to users. Consequently, HRM encompasses many practices that must be considered to achieve the desired outcomes (Tiwari & Saxena, 2012). Al-Lawama et al. (2021) have emphasized the importance of better understanding the factors influencing employee performance while considering various HRM practices. Therefore, there is a need to assess the extent to which HRM practices (training, selective recruitment, digital transformation, performance-based compensation, and job security) can influence the performance of Moroccan employees of public institutions and state-owned enterprises.

1. LITERATURE REVIEW AND HYPOTHESES

Human resource management (HRM) is of strategic importance for organizations. Numerous theories aim to elucidate the causal relationship between HRM practices and performance results within various business entities. Bourguignon (1995) defined performance as a system of complementary parameters that determine the results produced by the studied individual and the process through which these results are achieved. In the modern era, HRM has become an urgent necessity. Several studies have shown that effective HRM enhances workers' productivity and an organization's competitive advantages (Quresh et al., 2016; Wright et al., 2003; Balochi et al., 2010). Guest (2002) demonstrated that the interrelationship between employees and HRM practices is a crucial factor in determining the impact of HRM on organizational performance. In other words, when employees perceive these approaches positively, it can lead to good organizational performance, while a negative perception can result in mediocre performance.

Quresh et al. (2016) found that all the tested variables (selection, training, performance evaluation system, compensation system, and employee participation) correlate with banks' financial performance. This underscores the importance of the HR department in optimizing employee performance by providing qualified professionals whose

impact is felt throughout the organization (Amir et al., 2022). Therefore, it is imperative for companies to continually improve their HR strategies to remain competitive in the market, especially in highly competitive industries (Hee & Jing, 2018).

Furthermore, Osman et al. (2011) argue that deficient HRM can lead to multiple adverse consequences, including employee demotivation, reduced effectiveness, and disinterest in the organization, ultimately resulting in a decline in overall performance. DeNisi and Griffin (2001) defined training as the set of approaches implemented to equip workers with all the necessary skills to perform their tasks effectively. Lyons (2009a) emphasized that employee training improves performance by influencing the prevailing culture and employee behavior within the organization.

The study by Barzegar and Farjad (2011) on the influence of worker training on the Organization of Martyrs' Affairs revealed a positive impact. However, the results fell below expectations, emphasizing the need to tailor training to individual employee needs and the importance of prior course information to encourage participation. Lyons (2009b) highlights the positive impact of team training in constructing and maintaining templates for individual and team performance in the field. It underscores that employee training is crucial for improving organizational efficiency and aligning employee culture and behavior with the company's objectives.

According to Collins and Smith (2006), performance-based compensation encompasses all the financial benefits an executive, manager, or employee can receive in addition to their base salary. As an HRM practice, compensation is crucial in achieving a company's success. Islami (2015) specified that performance-based individual compensation encourages employees to consistently exert effort to improve their results, enhancing their motivation and engagement. Takeuchi et al. (2003) note that employees' professional development enables them to enhance their skills to strategically achieve the organization's objectives.

Godard and Khemir (2023) examine the link between incorporating corporate social responsibility (CSR) criteria into executive compensation and companies' social and financial performance in the SBF 120. The results highlight that considering CSR approaches to compensate executives has a positive impact on the social and financial performance of companies. Ali (2016) described employee performance evaluation as a process aimed at assessing their work performance by examining their task execution and behavior. The goal is to measure their ability to perform tasks successfully and efficiently while contributing to their personal development and that of the organization (Sweis et al., 2020).

According to the World Bank report (Patrinos et al., 2013), countries implementing performance-based compensation for teachers achieve outstanding performance in the Program for International Student Assessment (PISA). Furthermore, performance-based remuneration, which aligns employees' motivations with the organization's objectives, positively impacts organizational outcomes (Subramony et al., 2008). This approach fosters a favorable professional environment, increasing employee engagement (Kwon et al., 2010), enhancing profitability and reducing workforce turnover (Shaw et al., 1998). It can also encourage employees to adopt behaviors and mindsets that align with the organization's strategic directions (Keizer, 2011; Kim & Sung-Choon, 2013).

Selective recruitment involves precisely targeting an organization's needs and selecting the most competent candidates to ensure the smooth operation of the organization's activities. This process includes finding qualified professionals to fill va-

cant positions and searching for potential candidates (Noe et al., 2019). Schuster (2004) asserted the importance of selective recruitment as a crucial technique for increasing profits. On the other hand, Aguinis et al. (2011) studied HRM practices within government-established and managed entities. They argued that recruiting and attracting competent employees improves performance and increases organizational performance while reducing employee turnover.

Vlachos' (2008) analysis of HRM approaches established that selective recruitment is widely recognized as a critical practice that enhances organizational performance. Additionally, it was determined that information sharing, compensation policy, comprehensive training, and decentralization of decision-making are fundamental elements that positively anticipate all performance indicators.

Job security is workers' confidence in maintaining their employment over the medium and long term without fear of arbitrary or frequent layoffs. Previous research on the impact of job insecurity on worker performance has yielded mixed conclusions. James (2012) considers job security to be crucial for overall performance because when job security is lacking, personnel will lack confidence in their professional future, negatively affecting performance. It is noted that the greater an employee's job security, the more likely they are to perform their tasks effectively, which positively influences overall organizational results and performance (Society for Human Resource Management, 2011).

Without stable employment, employees will likely experience workplace stress and negative emotional reactions that can affect their professional efforts (Jordan et al., 2002). Cheng and Chan (2008) reported that job insecurity, one of the most significant stressors, is negatively associated with productivity, work engagement, and employee health. Furthermore, gender does not significantly affect the relationship between job insecurity and the studied variables.

However, other empirical studies have shown that job security and organizational performance are not necessarily linked. Vlachos (2009) indicated

that job security is not essential in predicting organizational performance. Sverke et al. (2002) found that job security had no significant or measurable effect on performance. In other words, there was no clear and statistically significant link between the degree of job security and the quality of work performed by employees. The explanation for the weak negative correlation between performance and job security offered to employees is that rational employees experiencing job insecurity can make efforts and maintain their professional performance to be perceived as applicable to the organization (Greenhalgh & Rosenblatt, 1984; Sverke et al., 2002).

The first definition of the digital transformation concept appeared in a book by Stolterman and Fors (2004), which defined it as “changes that digital technology brings or influences in all aspects of human life.” Digital transformation refers to the integration of digital technologies into all areas of an organization or society, resulting in fundamental changes in how activities are conducted, services are provided, and people interact (Verina & Titko, 2019). It has been shown that digital technologies increase productivity, reduce costs, and stimulate innovation. In the context of the health crisis, digital transformation has played a crucial role in enabling economic development and growth (Soto-Acosta, 2020).

Digital transformation improves customer understanding to deliver tailored products and services (Lahchame & Djilali, 2021) by using data collection for enhanced customer interaction. It enhances business management and optimizes internal processes, improving performance and simplifying decision-making (Cabinet Étude Mille-Alliance, 2015). Furthermore, the use of digital technologies

helps companies accomplish tasks more quickly, cost-effectively, and potentially with better quality (Setia et al., 2013) and provides better service to customers and employees, as well as risk management and cost control (Lahchame & Djilali, 2021). Digital transformation in public service is critical for developing public enterprises and improving their management practices in most Eurozone countries (Clay et al., 2019).

The UN’s 2016 e-Government report highlights a positive global innovation and digital transformation trend. Many governments are adopting information and communication technologies to offer quality services to citizens and involve them in decisions. This study confirms the role of online administration in achieving the 2030 Agenda and its 17 Sustainable Development Goals.

It is worth noting that several authors have sought to address emerging issues in this field, encouraging new studies to provide innovative perspectives and research implications while filling gaps in existing research (Devi, 2018).

As a result, this work aims to analyze human resource management’s influence on employee performance, focusing on Moroccan companies and public establishments. Given the diversity of HRM practices, this study focuses on training, selective recruitment, digital transformation, performance-based compensation, and job security (Figure 1). The research hypotheses are formulated as follows:

- H1: Employee training is positively linked to organizational performance.*
- H2: Performance-based compensation is positively linked to organizational performance.*
- H3: Selective recruitment is positively linked to organizational performance.*
- H4: Job security is positively linked to organizational performance.*
- H5: Digital transformation is positively linked to organizational performance.*

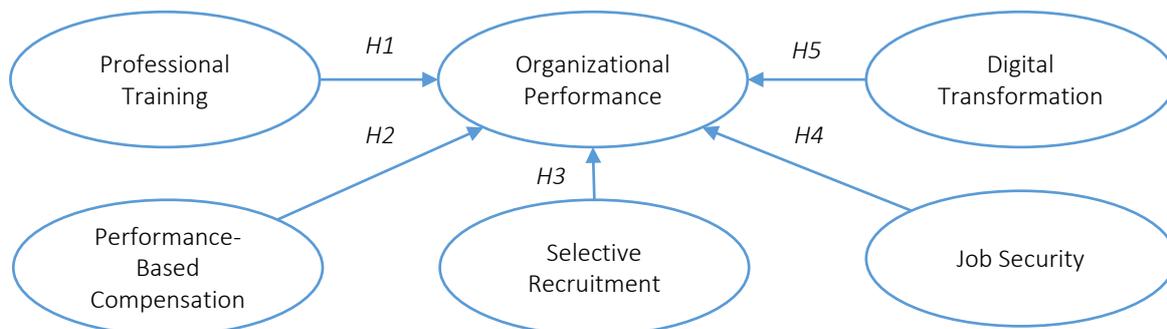


Figure 1. Research framework

- H3: *Selective recruitment is positively linked to organizational performance.*
- H4: *Job security is positively linked to organizational performance.*
- H5: *Digital transformation is positively linked to organizational performance.*

2. METHODOLOGY

2.1. Data collection

An investigation was conducted between January and March 2023 using a randomly selected sample from 10 public institutions and state-owned enterprises providing public services in the capital of the kingdom. Seven of them agreed to participate in the survey. The target population consisted of personnel working in the HR departments of these organizations, totaling 67 individuals. This approach aimed to shed light on the research questions of the survey. Data collection was carried out through a questionnaire completed by the respondents themselves. This questionnaire includes items inspired by the literature review and empirical studies, where respondents assess the degree of implementation of HR practices using a Likert scale ranging from 1 to 7. Table A1 (Appendix A) defines the measurement items.

2.2. Data analysis techniques and model measurement

The study adopted the partial least squares structural equation modeling (PLS-SEM) for the analysis. Using structural equation models, this statistical analysis technique examines complex relationships between a set of latent and manifest variables. This technique can estimate models with small samples since its various algorithms produce results with a high degree of statistical power (Rigdon, 2014). The software used in this study is Smart PLS 4.

This technique is based on two types of models: the measurement model and the structural model. The measurement model is designed to assess the validity and reliability of the indicators of latent constructs. In contrast, the structural model ex-

plores the relationships between these latent constructs, examining their interconnectedness. It helps understand how latent variables influence and are influenced by other latent variables in the conceptual model. The paper used three essential techniques to validate the measurement model: Cronbach's alpha, convergent validity, and discriminant validity.

First, Cronbach's alpha coefficient was used to measure the reliability of the questions posed to the respondents. This coefficient is the mathematical equivalent of estimating the average of all correlations between two equal parts of the scale and ranges from 0 to 1. The closer the alpha value is to 1, the more homogeneous the set of items is considered. According to Cronbach (1951), values exceeding 0.7 are considered appropriate (Hair et al., 2017). This threshold indicates that the measurement error is equal to more than half of the standard deviation of the total score distribution. The calculation formula is:

$$\alpha = \frac{N}{N-1} \left[1 - \frac{\sum_{i=1}^k \sigma_i^2}{\sigma_T^2} \right], \quad (1)$$

where α represents Cronbach's alpha; N is the total number of items associated with the latent variable; k is the sum of variances of the items; σ_i^2 is the variance of each item or manifest variable (i), and σ_T^2 is the total variance of the scale.

Next, the study examined convergent validity to analyze if the survey components that are theoretically expected to be interconnected demonstrate this interconnection in reality (Hair et al., 2011). To this end, the study checked three important criteria: composite reliability, individual indicator reliabilities (loadings), and average variance extracted (AVE).

Composite reliability (CR) assesses the internal consistency of a latent concept. Adequate internal consistency in a model should have a value greater than 0.70 (Nunnally, 1978).

The reliability of individual indicators, measured by their factor loadings, is a crucial measure of the quality and robustness of the relationship between the questions in a questionnaire and the latent fac-

tor they are supposed to measure. In other words, it determines how much each indicator reliably contributes to measuring the underlying concept. High factor loading indicates a strong correlation between the indicator and the underlying concept, ensuring the indicator's reliability. In contrast, low factor loading questions its relevance in measuring the concept, which is essential in confirmatory factor analyses and the validation of measurement scales.

The Average Variance Extracted index evaluates the proportion of variance in a latent concept explained by its indicators compared to the variance attributable to measurement errors. An AVE value of at least 0.50 indicates that the underlying concept explains over half of the variance in the indicators (Hair et al., 2011). The formula for AVE is as follows:

$$AVE = \frac{\sum_{i=1}^k \lambda_i^2}{\sum_{i=1}^k \lambda_i^2 + \sum_{i=1}^k e_i}, \quad (2)$$

where k is the number of items in the measurement scale; λ_i represents the factor contribution of item i , meaning the correlation between item i and the latent construct. In other words, it measures the strength of the relationship between the item and the concept to be measured, and e_i is the residual variance of item i , which represents the portion of the item's variance not explained by the latent construct. This is the measurement error or noise associated with the item.

Finally, discriminant validity was assessed to measure the degree of differentiation of a construct from others through two aspects: the Fornell and Larcker criterion and cross-loadings of different items. Regarding the first aspect, the square root of the AVE (Average Variance Extracted) of each latent construct should exceed the correlation coefficients with other latent constructs (Chin, 1998; Abraouz & Chakir, 2020); as for the second aspect, the loading of an item should not be higher for another construct than the one to which it is attached.

As for the structural validity, which is essential to test the hypotheses of the model, the evaluation criteria adopted in this study are the Bootstrap procedure, determination coefficients, Cohen's f

effect size index, the Stone-Geisser coefficient, and the GoF index (Chin, 1998; Hair et al., 2017).

The study used standardized correlation coefficients (path coefficients) to measure the direction of links between different latent or observed variables in the model and the impact of one variable on another (Bennaceur & Chafik, 2020). The closer the coefficient is to 1 (or -1 in the case of a negative relationship), the stronger the relationship. A coefficient close to zero indicates a weak relationship (Hair et al., 2017).

Bootstrap analyses were employed to evaluate T-values, as the PLS-SEM method is more flexible and can be applied to data that do not require specific distribution assumptions and do not allow for significance determination by traditional parametric methods (Hair et al., 2014). Bootstrapping assesses the significance of correlations based on the Student's T-value or the p-value. A hypothesis is considered significant if the T-value meets certain conditions.

$$\begin{cases} T > 1.96 & \text{with an error rate of } 0.05 \\ T > 2.58 & \text{with an error rate of } 0.01 \\ T > 3.29 & \text{with an error rate of } 0.001 \end{cases} \quad (3)$$

The determination coefficient assesses the quality of structural models by quantifying the proportion of variance in a dependent variable explained by the associated independent variables. This choice is because this coefficient is considered the most appropriate criterion (Henseler et al., 2009; Hair et al., 2017). It ranges from 0 to 1, and the closer it is to 1, the higher the model's predictive capability. Researchers generally aim for high values like 0.75 or above, but Chin (1998) suggests that values exceeding 0.67 indicate strong consistency; those between 0.19 and 0.33 are considered moderate, while values below 0.19 are weak.

After assessing the determination coefficient for each endogenous latent variable, it is crucial to study the change in this coefficient following the removal of exogenous latent variables, which amounts to determining the intensity of the impact of the latter. Values exceeding 0.35 are associated with a large effect size; those ranging from 0.15 to 0.35 indicate a moderate effect size,

while values below 0.02 indicate a small effect size. The formula for f^2 is as follows:

$$f^2 = \frac{R_{included}^2 - R_{excluded}^2}{1 - R_{included}^2}, \quad (4)$$

where $R_{included}^2$ is the determination coefficient R^2 of the model that includes the explanatory variable in question. It represents the proportion of variance in the dependent variable explained by the model that includes the variable. $R_{excluded}^2$ is the R^2 of the model that excludes the explanatory variable. It represents the proportion of variance in the dependent variable explained by the reduced model without the variable.

The Stone-Geisser coefficient (q^2) is used to measure the impact of each variable. If $Q_k^2 > 0$, it is said that the model exhibits predictive validity (Fernandes, 2012). The formula is as follows:

$$Q_k^2 = 1 - \frac{\sum_{i=1}^n (Y_i - \hat{Y}_i)^2}{\sum_{i=1}^n (Y_i - \bar{Y})^2}, \quad (5)$$

with N being the number of observations, Y_i representing the observed values of the dependent variable, \hat{Y}_i being the values predicted by the regression model, and \bar{Y} being the average of the observed values of the dependent variable.

It is important to note that the PLS-SEM method cannot optimize a global scalar function. As a result, the study must use the Goodness of Fit (GoF) as an additional indicator to assess the robustness of this method (Tenenhaus et al., 2004). The GoF represents an operational solution to this problem as it can be conceptualized as a global validation index for the PLS model. This criterion varies between 0 and 1, where values greater than 0.36 are large, those between 0.36 and 0.25 are medium, and those below 0.19 are small (Tenenhaus et al., 2005). The GoF is calculated as follows:

$$GoF = \sqrt{R^2 \cdot AVE}. \quad (6)$$

3. RESULTS

3.1. Respondents' demographics

The demographic results of this survey are presented in Table 1. Demographically, most participants

were women, accounting for 57%, while men constituted 43% of the sample. Most participants were under 40 years old, representing 73% of the total.

Table 1. Demographic sample

| Variables | Frequency | Percentage | Cumulative percentage |
|--------------------|-----------|------------|-----------------------|
| Gender | | | |
| Male | 29 | 43% | 43% |
| Female | 38 | 57% | 100% |
| Total observations | 67 | | |
| Age | | | |
| 26-30 | 10 | 15% | 15% |
| 31-35 | 17 | 25% | 40% |
| 36-40 | 22 | 33% | 73% |
| 41-45 | 18 | 27% | 100% |
| Total observations | 67 | | |

3.2. Hypotheses testing

Using the smartPLS software for data analysis, the study developed the measurement and structural models. Figure 1 visualizes the AVE values and loadings, while Table A2 in Appendix A succinctly summarizes the values of Cronbach's alpha, CR, AVE, and loadings.

According to Table A2 in Appendix A, the exploratory factor analysis revealed that the Cronbach's alpha values for the variables of training, selective recruitment, digital transformation, performance-based compensation, and job security are all above 0.7, representing 0.973, 0.882, 0.906, 0.857, 0.906, and 0.898, respectively. Furthermore, the composite reliability values for these variables exceed 0.70, representing 0.980, 0.919, 0.934, 0.903, 0.935, and 0.929, confirming the presence of satisfactory internal consistency among the questions of each variable. The estimates of factor contributions (loadings) are significant at a 1% level and range from 0.752 to 0.932, suggesting the reliability of the measures. Finally, all AVE values exceed 0.50, indicating convergent validity. Since the study confirmed both internal consistency reliability and convergent validity, it proceeds to assess the discriminant validity of the constructs.

Discriminant validity for all constructs has been confirmed in this study as both conditions have been met. Firstly, referring to Table 2, it can be ob-

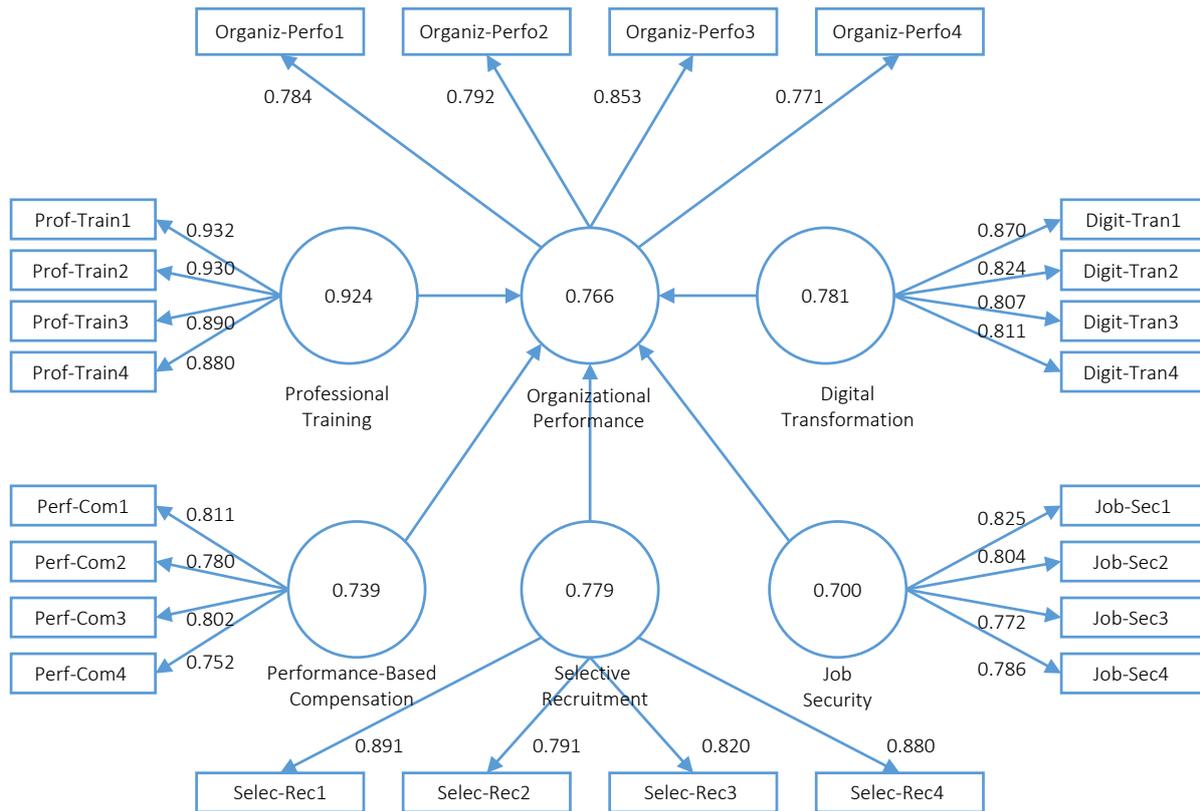


Figure 2. Presentation in SMART PLS 4 of the AVE and loading values

served that the square root of the AVE values exceeds the correlations with other latent concepts (Chin, 1998), indicating that the latent constructs exhibit substantial variance with the measures that compose them compared to other latent constructs. Thus, it can be affirmed that the Fornell-Larcker criterion is met. Secondly, as shown in Table A3 in Appendix A, the indicators in the model exhibit significant cross-loadings with the latent constructs they belong to compared to other latent constructs. Therefore, the confirmation of discriminant validity for the measurement instruments is achieved.

ships between constructs and testing five research hypotheses. The results from the bootstrapping analysis are summarized in Table 3. The tests based on T-statistics confirm that training, selective recruitment, digital transformation, and performance-based compensation significantly and positively influence the productivity of public institutions and state-owned enterprises, thus validating H1, H2, H3, and H4. The T-statistics are 3.126, 2.870, 2.178, and 2.406, respectively, all exceeding 1.64. However, job security has no impact on performance within these organizations since the T-statistic is equal to 0.338. As a result, H5 is rejected.

The psychometric results of the model are satisfactory, allowing the analysis of the structural relation-

ships between constructs and testing five research hypotheses. According to Table 4, the coefficient of determination (R^2) stands at 0.926, indicating that the de-

Table 2. The discriminant validity of the model (Fornell-Larker Criterion)

| Construct | Prof-Train | Perf-Com | Selec-Rec | Job-Sec | Digit-Tran | Organiz-Perfo |
|---------------|------------|----------|-----------|---------|------------|---------------|
| Prof-Train | 0.961 | | | | | |
| Perf-Com | 0.251 | 0.860 | | | | |
| Selec-Rec | 0.539 | 0.709 | 0.883 | | | |
| Job-Sec | 0.395 | 0.594 | 0.880 | 0.837 | | |
| Digit-Tran | 0.443 | 0.730 | 0.744 | 0.633 | 0.884 | |
| Organiz-Perfo | 0.250 | 0.755 | 0.881 | 0.835 | 0.755 | 0.875 |

Table 3. Results of model validation

| Hypotheses | The relationship between the variables | Standardized correlation coefficient (Path coefficients) | Statistic-T | P-value | Decision |
|------------|--|--|-------------|---------|---------------|
| H1 | Prof-Train → Organiz-Perfo | 0.077 | 3.126 | 0.002 | Supported |
| H2 | Perf-Com → Organiz-Perfo | 0.137 | 2.870 | 0.004 | Supported |
| H3 | Selec-Rec → Organiz-Perfo | 0.187 | 2.178 | 0.029 | Supported |
| H4 | Job-Sec → Organiz-Perfo | 0.119 | 2.406 | 0.016 | Supported |
| H5 | Digit-Tran → Organiz-Perfo | 0.097 | 0.338 | 0.735 | Not Supported |

terminants examined in this study explain 93% of the organizational performance of public institutions and state-owned enterprises. In line with Chin (1998), this result is statistically significant. Additionally, Table 4 presents the effects of the explanatory variable organizational performance on the explained variables professional training, selective recruitment, performance-based compensation, job security, and digital transformation; it can be observed that the f^2 values for H1 and H2, respectively, indicate a substantial effect of 0.477 and 0.382, while the f^2 values for H3 and H4 are 0.240 and 0.212, signifying a moderate effect. Conversely, H5 has no effect as its f^2 is 0.004.

Table 4. Evaluation of R^2 and F^2

| Construct | R^2 | F^2 | Conclusion |
|---------------|-------|-------|--------------------|
| Prof-Train | | 0.477 | Significant effect |
| Perf-Com | | 0.382 | Significant effect |
| Selec-Rec | | 0.240 | Moderate effect |
| Job-Sec | | 0.212 | Moderate effect |
| Digit-Tran | | 0.004 | No effect |
| Organiz-Perfo | 0.926 | | High coefficient |

The Q^2 value obtained from the software is 0.899, which means that the model developed in this study is predictive. As for the GOF, by applying the previously mentioned formula, the study obtains a value of 0.851, which is considered significant according to Wetzels et al. (2009). The results conclude that the reliability and validity of the proposed model are confirmed and widely acceptable.

4. DISCUSSION

The present study examines the effect of HRM practices (training, selective recruitment, digital transformation, performance-based compensation, and job security) on employee performance in public institutions and state-owned enterprises. After examining the results, it was found that train-

ing, selective recruitment, digital transformation, and performance-based compensation have a significant and positive effect on the performance of employees, thus confirming H1, H2, H3, and H4. Notably, training and selective recruitment were the top factors contributing to the modernization of public institution and state-owned enterprise services, followed by performance-based compensation. However, job security had no impact on the model, potentially because employees facing job insecurity may be more motivated to maintain good performance to demonstrate their value to the organization.

This study complements and reinforces other studies that have demonstrated the effectiveness of HRM policies in enhancing organizational performance (Vlachos, 2009; Çalişkan, 2010; Arumugam & Rouhollah, 2011; Gbolahan, 2012; Katou, 2008; Katou & Budhwar, 2010). While these studies found significant relationships between employee training, selective hiring, and organizational performance, they also indicated a weak association between job security and organizational performance.

The empirical studies by Vlachos (2009) and Sverke et al. (2002) on shared vision, innovation mechanisms, and product innovation in China yield a similar result. There is no direct positive relationship between job security and organizational performance. Furthermore, there may be a curvilinear relationship between job insecurity and increased work effort, such that the greatest increase occurred at moderate levels of job insecurity (Brockner et al., 1992). Notably, Arcand et al. (2004) and Patterson et al. (1997) did not find significant effects on selection, training practices, and performance-based compensation.

In light of these mixed results, it is crucial to consider that employee reactions to job security are not solely determined by individual factors but

also depend on how organizations treat their employees (Sverke & Hellgren, 2002). In summary, the way HRM is implemented has a direct impact on employee performance in various organizations. These findings will help address questions about the role of HRM as a lever for performance within public institutions and state-owned enterprises.

As a recommendation, it is advisable to implement tailored training programs for staff and involve them in decisions regarding their professional development to enhance the performance of public institutions and state-owned enterprises. Compensation should be linked to performance, moving from a seniority-based to experience-based logic, with performance evaluations based on clear and transparent criteria. In terms of recruitment, it is recommended to select candidates based on their skills, knowledge, attitude, and qualifications, using appropriate selection methods.

Although job security has no direct effect on organizational performance, public institutions and state-owned enterprises are advised to act on three key aspects: developing employee employability, providing better support during organizational changes, and establishing a clear agreement between top management and employees. Job security and performance within an organization are interdependent, but their influence may vary depending on the context and management.

Concerning digital transformation in the public sector, while public administrations do not seek a competitive advantage over each other due to the state's monopoly, they aim to improve services to citizens while maintaining sustainable efficiency despite the costs involved. To succeed in this transformation, it is necessary to modernize administrative services by digitizing procedures, enhancing cybersecurity, ensuring digital sovereignty, expanding access to high-speed and very high-speed Internet for the entire population, and guaranteeing service quality. However, it is essential to note that digital transformation presents challenges regarding cybersecurity, data protection, and equity in access to digital services, requiring careful planning, effective change management, and stakeholder collaboration.

Despite the significant contributions made by this study, it has several limitations. Firstly, the sample size is relatively small, limiting the generalizability of the results. Future research should consider including more public institutions and state-owned enterprises for more robust conclusions. Additionally, it would be beneficial to explore moderating variables such as organizational climate, labor market conditions, and the legal and regulatory framework for a more in-depth understanding. Lastly, the use of self-reported data, rather than verifiable and objective data, may limit the reliability of the reported figures and, consequently, the conclusions drawn from these data.

CONCLUSION

This study aims to examine the impact of HRM practices on the performance of employees in public institutions and state-owned enterprises in Morocco. The results have confirmed that training, selective recruitment, digital transformation, and performance-based compensation positively impact organizational performance within Moroccan public institutions and state-owned enterprises. This supports the Moroccan government's vision to introduce HRM as an essential pillar for reforming public institutions and state-owned enterprises. However, this study could not confirm a positive relationship between job security and organizational performance.

The results provide general recommendations for the public sector in general and public institutions and state-owned enterprises to enhance employee performance. Therefore, HRM practices should be reviewed and rethought to be more effective and influential in achieving favorable organizational outcomes.

The recommendations formulated in this study aim to strengthen the performance of public institutions and state-owned enterprises in Morocco. Firstly, it is suggested that skills in training and organizational learning be developed. Secondly, these entities should adopt performance-linked compensation,

rewarding employees based on their achievements and goals attained. Thirdly, a skills-based recruitment process should be established to select the best candidates objectively, thus avoiding nepotism and favoritism. Fourthly, it is recommended to balance job security and performance, as excessive job security can lead to complacency and decreased performance. Finally, new technologies should be enhanced to optimize processes, improve operational efficiency, and facilitate citizens' access to public services.

However, the study acknowledges limitations related to the sample size and composition. Future research could include larger and more diverse samples. Furthermore, it is recommended that the moderating effect of certain organizational variables in the relationship between innovation and organizational learning be analyzed, as well as that the antecedents and consequences of organizational learning be identified more comprehensively.

AUTHOR CONTRIBUTIONS

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REFERENCES

1. Abraouz, F. Z., & Chakir, K. (2020). Adéquation entre entrepreneuriat coopératif et développement durable, Étude des aspects coopératifs dans la région Souss-Massa [Alignment between cooperative entrepreneurship and sustainable development: Study of cooperative aspects in the Souss-Massa region]. *Revue Internationale des Sciences de Gestion*, 3(2), 287-303. (In French). <https://doi.org/10.5281/zenodo.3776851>
2. Aguinis, H., Boyd, B. K., Pierce, C. A., Short, J. C., Huselid, M. A., & Becker, B. E. (2011). Bridging micro and macro domains: Workforce differentiation and strategic human resource management. *Journal of Management*, 37(2), 421-428. <https://doi.org/10.1177/0149206310373400>
3. Ali, M. (2016). Impact of gender-focused human resource management on performance: The mediating effects of gender diversity. *Australian Journal of Management*, 41(2), 376-397. <http://dx.doi.org/10.1177/0312896214565119>
4. Al-Lawama, H. I., Omar, K., Saadon, M. S. I., & Aburuman, O. J. (2021). The relationship between strategic human resource management practices and organizational performance by mediating role of employee behavior in Jordanian telecommunication companies. *Turkish Online Journal of Qualitative Inquiry*, 12(3), 2892-2902. Retrieved from https://www.researchgate.net/publication/353324978_The_relationship_between_strategic_human_resource_management_practices_and_organizational_performance_by_mediating_role_of_employee_behavior_in_Jordanian_telecommunication_companies
5. Amir, M., Ali, K., Ali, D., & Ali, A. Z. (2022). Human resource practices and employee performance: Mediating role of work engagement and training sessions. *JISR Management and Social Sciences & Economics*, 20(1), 187-208. <https://doi.org/10.31384/jisrmsse/2022.20.1.10>
6. Arcand, M., Arcand, G., Bayad, M., & Fabi, B. (2004). Systemes de gestion des ressources humaines et performance organisationnelle [Human resource management systems and organizational performance]. *Annals of Public and Cooperative Economics*, 75(3), 497-524. (In French). <https://doi.org/10.1111/j.1467-8292.2004.00260.x>
7. Arumugam, V. C., & Rouhollah, M. (2011). The impact of human resource management practices on financial performance of Malaysian

- industries. *Australian Journal of Basic and Applied Sciences*, 5(10), 951-955. Retrieved from <https://www.ajbasweb.com/old/ajbas/2011/October-2011/951-955.pdf>
8. Balochi, Q. B., Ali, N., Kiani, T. S., Ahsan, A., & Mufty, A. (2010). Relationships between human resources practices and perceived employees' performance of bankers in NWFP, Pakistan (An empirical evidence). *European Journal of Social Science*, 18(2), 210-214. Retrieved from https://www.researchgate.net/publication/2922291339_Relationship_between_HR_Practices_and_Perceived_Employees'_Performance_of_Bankers_in_NWFP_Pakistan_An_Empirical_Evidence
 9. Barzegar, N., & Farjad, S. (2011). A study on the impact of on the job training courses on the staff performance (A case study). *Procedia – Social and Behavioral Sciences*, 29, 1942-1949. <https://doi.org/10.1016/j.sbspro.2011.11.444>
 10. Bennaceur, A., & Chafik, K. (2020). Les fondements de l'usage des équations structurelles dans les recherches en sciences de gestion: Cas de l'approche PLS [The foundations of using structural equation modeling in management science research: The case of the PLS approach]. *Revue Du contrôle, De La Comptabilité Et De l'audit*, 3(2). (In French). Retrieved from <https://revuecca.com/index.php/home/article/view/379>
 11. Bourguignon, A. (1995). Peut-on définir la performance? [Can we define performance?]. *Revue Française de Comptabilité*, 269, 61-66. (In French). Retrieved from <https://faculty.essec.edu/research/peut-on-definir-la-performance/>
 12. Brockner, J., Grover, S., Reed, T. F., & DeWitt, R. L. (1992). Layoffs, job insecurity, and survivors' work effort: Evidence of an inverted-U relationship. *Academy of Management Journal*, 35(2), 413-425. Retrieved from <https://psycnet.apa.org/record/1992-37263-001>
 13. Brown, M., & Heywood, J. S. (2005). Performance appraisal systems: Determinants and change. *British Journal of Industrial Relations*, 43(4), 659-679. <https://doi.org/10.1111/j.1467-8543.2005.00478.x>
 14. Cabinet Mille-Alliance. (2015). *La transformation digitale des entreprises [The digital transformation of businesses]*. (In French). Retrieved from <http://mille-alliance.fr/wp-content/uploads/2017/06/etude-digitale.pdf>
 15. Çalışkan, E. N. (2010). The impact of strategic human resource management on organizational performance. *Journal of Naval Sciences and Engineering*, 6(2), 100-116. Retrieved from <https://dergipark.org.tr/en/pub/jnse-issue/9992/123483>
 16. Cheng, G. H. L., & Chan, D. K. S. (2008). Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology*, 57(2), 272-303. <https://doi.org/10.1111/j.1464-0597.2007.00312.x>
 17. Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295-336). Lawrence Erlbaum Associates Publishers. Retrieved from <https://psycnet.apa.org/record/1998-07269-010>
 18. Clay, T. A., Small, C., Tuck, G. N., Pardo, D., Carneiro, A. P. B., Wood, A. G., Croxall, J. P., Crossin, G. T., & Phillips, R. A. (2019). A comprehensive large-scale assessment of fisheries bycatch risk to threatened seabird populations. *Journal of Applied Ecology*, 56(8), 1882-1893. <https://doi.org/10.1111/1365-2664.13407>
 19. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
 20. Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of Management Journal*, 49(3), 544-560. <https://doi.org/10.5465/amj.2006.21794671>
 21. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. <https://doi.org/10.1007/BF02310555>
 22. DeNisi, S. A., & Griffin, W. R. (2001). *Human resources management*. New York, NY: Houghton Mifflin Company. Retrieved from https://books.google.co.ma/books/about/Human_Resource_Management.html?id=vnIGswEACAAJ&redir_esc=y
 23. Devi, J. K. (2018). Influence of green HRM practices on employees performance level – A study with reference to literature review. *IJRAR-International Journal of Research and Analytical Reviews (IJRAR)*, 5(3), 329-332. Retrieved from <https://ijrar.org/papers/IJRAR190A057.pdf>
 24. Fernandes, V. (2012). En quoi l'approche PLS est-elle une méthode à (re)-découvrir pour les chercheurs en management? [What makes the PLS approach a method to (re) discover for management researchers?]. *Management*, 15(1), 101-123. (In French). <https://doi.org/10.3917/mana.151.0102>
 25. Gbolahan, F. R. (2012). Impact of human resource management practices on organizational performance in Nigeria: An empirical study of Ecobank Nigeria Plc in the last five years. *International Journal of Contemporary Business Studies*, 3(10), 43-48. Retrieved from https://www.researchgate.net/profile/Umidjon-Akhunjonov/publication/273001319_Handling_Technological_Innovations_China_Overview/links/5577f3ff08aeacff200054f6/Handling-Technological-Innovations-China-Overview.pdf
 26. Godard, L., & Khemir, S. (2023). Effets de l'intégration de critères RSE dans la rémunération des dirigeants sur la performance sociale et financière des entreprises françaises cotées [Effects of integrating CSR criteria into executive compensation on the social and financial performance of listed French companies]. *Finance Contrôle Stratégie*, 26-2. (In French). <https://doi.org/10.4000/fcs.10900>.
 27. Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *The Academy of Management Review*, 9(3), 438-448. <https://doi.org/10.5465/amr.1984.4279673>
 28. Guest, D. (2002). Human resource management, corporate performance and employee wellbeing: Building the worker

- into HRM. *Journal of Industrial Relations*, 44(3), 335-358. <https://doi.org/10.1111/1472-9296.00053>
29. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage. Retrieved from <https://us.sagepub.com/en-us/nam/a-primer-on-partial-least-squares-structural-equation-modeling-pls-sem/book244583>
 30. Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>
 31. Hair, J., Ringle, C., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152. <https://doi.org/10.2753/MTP1069-6679190202>
 32. Hee, O. C., & Jing, K. R. (2018). The influence of human resource management practices on employee performance in the manufacturing sector in Malaysia. *International Journal of Human Resource Studies*, 8(2), 129-147. <http://dx.doi.org/10.5296/ijhrs.v8i2.12826>
 33. Henseler, J., Ringle, C., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *New Challenges to International Marketing* (pp. 277-319). Emerald Group Publishing Limited. [http://dx.doi.org/10.1108/S1474-7979\(2009\)0000020014](http://dx.doi.org/10.1108/S1474-7979(2009)0000020014)
 34. Islami, X. (2015). The process and techniques to overcome the resistance of change research based in the eastern part of Kosovo. *International Journal of Multidisciplinary and Current Research*, 3. Retrieved from <https://ssrn.com/abstract=2813338>
 35. James, G. (2012). *How to achieve true job security*. Retrieved from <https://www.inc.com/geoffrey-james/how-to-achieve-true-job-security.html>
 36. Jordan, P. J., Ashkanasy, N. M., & Hartel, C. E. J. (2002). Emotional intelligence as a moderator of emotional and behavioral reactions to job insecurity. *The Academy of Management Review*, 27(3), 361-372. Retrieved from <https://psycnet.apa.org/record/2002-17416-002>
 37. Katou, A. A. (2008). Measuring the impact of HRM on organizational performance. *Journal of Industrial Engineering and Management (JIEM)*, 1(2), 119-142. <https://doi.org/10.3926/jiem.2008.v1n2.p119-142>
 38. Katou, A. A., & Budhwar, P. S. (2010). Causal relationship between HRM policies and organisational performance: Evidence from the Greek manufacturing sector. *European Management Journal*, 28(1), 25-39. <https://doi.org/10.1016/j.emj.2009.06.001>
 39. Keizer, A. B. (2011). Flexibility in Japanese internal labour markets: The introduction of performance-related pay. *Asia Pacific Journal of Management*, 28(3), 573-594. <https://doi.org/10.1007/s10490-009-9170-3>
 40. Kim, H., & Sung-Choon, K. (2013). Strategic HR functions and firm performance: The moderating effects of high-involvement work practices. *Asia Pacific Journal of Management*, 30, 91-113. <https://doi.org/10.1007/s10490-011-9264-6>
 41. Kwon, K., Bae, J., & Lawler, J. J. (2010). High commitment HR practices and top performers: Impacts on organizational commitment. *Management International Review*, 50, 57-80. <https://doi.org/10.1007/s11575-009-0023-6>
 42. Lahchame, K., & Djilali, C. (2021). La digitalisation des entreprises: Une opportunité pour leur performance économique [The digitalization of businesses: An opportunity for their economic performance]. *Journal of Contemporary Business and Economic Studies*, 48(2). (In French). Retrieved from <http://dspace.univ-tiaret.dz:80/handle/123456789/10410>
 43. Lyons, P. (2009a). Action theory and the training and performance application: Performance templates. *Industrial and Commercial Training*, 41(5), 270-279. <https://doi.org/10.1108/00197850910974811>
 44. Lyons, P. (2009b). Team training for creating performance templates. *Team Performance Management: An International Journal*, 15(5/6), 257-275. <https://doi.org/10.1108/13527590910983521>
 45. Noe, R., Hollenbeck, J., Gerhart, B., & Wright, P. (2019). *Fundamentals of human resource management* (8th ed.). McGraw-Hill. Retrieved from <https://www.amazon.com/Fundamentals-Resource-Management-Raymond-Andrew/dp/1260079171>
 46. Nunnally, J.C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill. Retrieved from <https://search.worldcat.org/fr/title/Psychometric-theory/oclc/3167590>
 47. Osman, I. H., Berbary, L. N., Sidani, Y., Al-Ayoubi, B., & Emrouznejad, A. (2011). Data envelopment analysis model for the appraisal and relative performance evaluation of nurses at an intensive care unit. *Journal of Medical Systems*, 35, 1039-1062. <https://doi.org/10.1007/s10916-010-9570-4>
 48. Patrinos, H. A., Velez, E., & Wang, C. Y. (2013). *Framework for the reform of education systems and planning for quality* (World Bank Policy Research Working Paper, 6701). The World Bank. Retrieved from <https://ssrn.com/abstract=2354752>
 49. Patterson, M. G., West, M. A., Lawthom, R., & Nickell, S. (1997). *Impact of people management practices on business performance* (22nd vol.). London: Institute of Personnel and Development. Retrieved from <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=9794c2304cb308d1ec5f6eca59dde05a5564d6b0>
 50. Quresh, T. M., Akbar, A., Khan, M. A., Sheikh, R. A., & Hijazi, S. T. (2016). Do human resource management practices have an impact on financial performance of banks? *African Journal of Business Management*, 4(7), 1281. Retrieved from <https://www.international-scholars-journals.com/articles/do-human-resource-management-practices-have-an-impact-on-financial-performance-of-banks.pdf>
 51. Rigdon, E. E. (2014). Rethinking partial least squares path modeling: Breaking chains and forging

- ahead. *Long Range Planning*, 47(3), 161-167. <https://doi.org/10.1016/j.lrp.2014.02.003>
52. Schuster, F. (2004). *The Schuster report*. John Wiley & Sons. <https://doi.org/10.1111/j.1360-0443.2004.00727.x>
53. Setia, P., Venkatesh, V., & Joglekar, S. (2013). Leveraging digital technologies: How information quality leads to localized capabilities and customer service performance. *MIS Quarterly*, 37(2), 565-590. <https://doi.org/10.25300/MISQ/2013/37.2.11>
54. Shaw, J. D., Delery, J. E., Jenkins Jr, G. D., & Gupta, N. (1998). An organization-level analysis of voluntary and involuntary turnover. *The Academy of Management Journal*, 41(5), 511-525. Retrieved from https://www.researchgate.net/publication/234021893_An_Organization-Level_Analysis_of_Voluntary_and_Involuntary_Turnover
55. Society for Human Resource Management. (2011). *2011 Employee Benefits: Examining Employee Benefits Amidst Uncertainty*. Retrieved from https://www.shrm.org/ResourcesAndTools/hr-topics/benefits/Documents/2011_Emp_Benefits_Report.pdf
56. Soto-Acosta, P. (2020). COVID-19 pandemic: Shifting digital transformation to a high-speed gear. *Information Systems Management*, 37(4), 260-266. <https://doi.org/10.1080/10580530.2020.1814461>
57. Special Commission on the Development Model. (2021). *Le nouveau modèle de développement: Libérer les énergies et restaurer la confiance pour accélérer la marche vers le progrès et la prospérité pour tous [The new development model: Unleashing energies and restoring trust to accelerate progress and prosperity for all]*. (In French). Retrieved from https://www.csmmd.ma/documents/Rapport_General.pdf
58. Stolterman, E., & Fors, A. C. (2004). Information technology and the good life. In B. Kaplan, D. P. Truex, D. Wastell, A. T. Wood-Harper, & J. I. DeGross (Eds.), *Information Systems Research* (pp. 687-692). Springer. https://doi.org/10.1007/1-4020-8095-6_45
59. Subramony, M., Krause, N., Norton, J., & Burns, G. N. (2008). The relationship between human resource investments and organizational performance: A firm-level examination of equilibrium theory. *Journal of Applied Psychology*, 93(4), 778-788. <https://doi.org/10.1037/0021-9010.93.4.778>
60. Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology: An International Review*, 51(1), 23-42. <https://doi.org/10.1111/1464-0597.0077z>
61. Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264. <https://doi.org/10.1037/1076-8998.7.3.242>
62. Sweis, R. J., Oglia, K., Abdallat, Y., Sweis, G. J., Suifan, T., & Saleh, R. (2020). The impact of human resource management practices on organisational performance in construction companies in Jordan. *International Journal of Business Innovation and Research*, 23(4), 515-539. <https://doi.org/10.1504/IJBIR.2020.111768>
63. Takeuchi, N., Wakabayashi, M., & Chen, Z. (2003). The strategic HRM configuration for competitive advantage: Evidence from Japanese firms in China and Taiwan. *Asia Pacific Journal of Management*, 20, 447-480. <https://doi.org/10.1023/A:1026386925473>
64. Tenenhaus, M., Amato, S., & Vinzi, V. E. (2004). A global goodness-of-fit index for PLS structural equation modelling. *Proceedings of the XLII SIS Scientific Meeting*, 1, 739-742. Retrieved from <https://www.sis-statistica.org/old/htdocs/files/pdf/atti/RSBa2004p739-742.pdf>
65. Tenenhaus, M., Esposito Vinci, V., Chatelin, Y. M., & Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis*, 48(1), 159-205. <https://doi.org/10.1016/j.csda.2004.03.005>
66. The Court of Auditors. (2016). *Le secteur des établissements et entreprises publics au Maroc: Ancrage stratégique et gouvernance [The public institutions and state-owned enterprises sector in Morocco: Strategic anchoring and governance]*. (In French). Retrieved from https://www.courdescomptes.ma/wp-content/uploads/2023/01/Synthese_Lesecteur-des-etablissements-et-entreprises-publics-au-Maroc.pdf
67. Tiwari, P., & Saxena, K. (2012). Human resource management practices: A comprehensive review. *Pakistan Business Review*, 9(2), 669-705. Retrieved from https://pbr.iobm.edu.pk/wp-content/uploads/2016/01/120103_HRM-Practices-Tiwari-37.pdf
68. United Nations. (2016). *Rapport sur les objectifs de développement durable 2016 [Report on Sustainable Development Goals 2016]*. (In French). Retrieved from https://unstats.un.org/sdgs/report/2016/the%20sustainable%20development%20goals%20report%202016_french.pdf
69. Verina, N., & Titko, J. (2019). Digital transformation: Conceptual framework. *International scientific conference: Contemporary issues in business, management and economics engineering'2019*. <https://doi.org/10.3846/cibmee.2019.073>
70. Vlachos, I. (2008). The effect of human resource practices on organizational performance: Evidence from Greece. *The International Journal of Human Resource Management*, 19(1), 74-97. <https://doi.org/10.1080/09585190701763933>
71. Vlachos, I. (2009). The effects of human resource practices on firm growth. *International Journal of Business Science & Applied Management*, 4(2), 17-34. Retrieved from <https://www.econstor.eu/handle/10419/190604>
72. Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly*, 33(1), 177-195. <https://doi.org/10.2307/20650284>
73. Wright, P. M., Gardner, T. M., & Moynihan, L. M. (2003). The impact of HR practices on the performance of business units. *Human Resource Management Journal*, 13(3), 21-36. <https://doi.org/10.1111/j.1748-8583.2003.tb00096.x>

APPENDIX A

Table A1. Study survey instrument

| Construct | Abbreviations of items | Items |
|--------------------------------|------------------------|--|
| Professional Training | Prof-Train 1 | It is important for you that your employer supports or funds your professional training. |
| | Prof-Train 2 | You frequently participate in training sessions. |
| | Prof-Train 3 | Professional training could contribute to your professional development. |
| | Prof-Train 4 | You will recommend our organization's training to your colleagues or peers. |
| Performance-Based Compensation | Perf-Com 1 | Incentive compensation (bonuses, incentives, commissions, etc.) positively impacts employee motivation. |
| | Perf-Com 2 | Incentive compensation encourages collaboration and cooperation among employees. |
| | Perf-Com 3 | How do you assess the overall effectiveness of the incentive compensation system within the organization? |
| | Perf-Com 4 | Have you observed an increase in team efficiency due to incentive compensation? |
| Selective Recruitment | Selec-Rec 1 | Selective recruitment, i.e., the careful selection of candidates, contributes favorably to enhancing the overall quality of employees. |
| | Selec-Rec 2 | Selectively recruited employees tend to be more competent and qualified than those recruited less selectively. |
| | Selec-Rec 3 | Selective recruitment promotes a stronger corporate culture and shared values among employees. |
| | Selec-Rec 4 | Selective recruitment should be more widely embraced to enhance organizational performance. |
| Job Security | Job-Sec 1 | Job security positively influences employee motivation |
| | Job-Sec 2 | Employees who feel secure in their jobs tend to be more engaged. |
| | Job-Sec 3 | Job security helps reduce employee stress and improve their well-being at work. |
| | Job-Sec 4 | Job security should be emphasized as a key element of the organization's human resource management strategy. |
| Digital Transformation | Digit-Tran 1 | Digital transformation has improved internal process efficiency and talent retention by offering new professional development opportunities. |
| | Digit-Tran 2 | You have noticed an increase in employee productivity following the implementation of digital transformation. |
| | Digit-Tran 3 | Digital transformation has improved customer or user satisfaction with your products or services. |
| | Digit-Tran 4 | You have observed a reduction in operational costs due to digital transformation. |
| Organizational Performance | Organiz-Perfo 1 | Are you satisfied with the key performance indicators (KPIs) currently used to evaluate your organization's effectiveness? |
| | Organiz-Perfo 2 | Internal communication within the organization regarding performance and goals is smooth and collaborative. |
| | Organiz-Perfo 3 | Your institution promotes the professional development of its employees to enhance their performance. |
| | Organiz-Perfo 4 | How do you assess the organization's responsiveness to market challenges and changes in terms of performance? |

Table A2. Representation of the variables used in the study to measure convergent validity and discriminant validity

| Construct | Cronbach's alpha | Composite Reliability (CR) | Average variance extracted (AVE) | Factor loading estimation |
|---------------------------------------|------------------|----------------------------|----------------------------------|---------------------------|
| Professional Training | 0.973 | 0.980 | 0.924 | |
| Prof-Train (1) | | | | 0.932 |
| Prof-Train (2) | | | | 0.930 |
| Prof-Train (3) | | | | 0.890 |
| Prof-Train (4) | | | | 0.880 |
| Performance-based Compensation | 0.882 | 0.919 | 0.739 | |
| Perf-Com (1) | | | | 0.811 |
| Perf-Com (2) | | | | 0.780 |
| Perf-Com (3) | | | | 0.802 |
| Perf-Com (4) | | | | 0.752 |
| Selective Recruitment | 0.906 | 0.934 | 0.779 | |
| Selec-Rec (1) | | | | 0.891 |
| Selec-Rec (2) | | | | 0.791 |
| Selec-Rec (3) | | | | 0.820 |
| Selec-Rec (4) | | | | 0.880 |
| Job Security | 0.857 | 0.903 | 0.700 | |
| Job-Sec (1) | | | | 0.825 |
| Job-Sec (2) | | | | 0.804 |
| Job-Sec (3) | | | | 0.772 |
| Job-Sec (4) | | | | 0.786 |
| Digital Transformation | 0.906 | 0.935 | 0.781 | |
| Digit-Tran (1) | | | | 0.870 |
| Digit-Tran (2) | | | | 0.824 |
| Digit-Tran (3) | | | | 0.807 |
| Digit-Tran (4) | | | | 0.811 |
| Organizational Performance | 0.898 | 0.929 | 0.766 | |
| Organiz-Perfo (1) | | | | 0.784 |
| Organiz-Perfo (2) | | | | 0.792 |
| Organiz-Perfo (3) | | | | 0.853 |
| Organiz-Perfo (4) | | | | 0.771 |

Table A3. Discriminant validity-cross loading

| Items | Prof-Train | Perf-Com | Selec-Rec | Job-Sec | Digit-Tran | Organiz-Perfo |
|-------------------|------------|----------|-----------|---------|------------|---------------|
| Prof-Train (1) | 0.866 | 0.141 | 0.491 | 0.567 | 0.843 | 0.617 |
| Prof-Train (2) | 0.818 | 0.088 | 0.544 | 0.617 | 0.737 | 0.545 |
| Prof-Train (3) | 0.839 | 0.084 | 0.531 | 0.634 | 0.805 | 0.571 |
| Prof-Train (4) | 0.859 | 0.133 | 0.507 | 0.658 | 0.832 | 0.582 |
| Perf-Com (1) | 0.194 | 0.781 | 0.276 | 0.134 | 0.218 | 0.201 |
| Perf-Com (2) | 0.064 | 0.637 | 0.111 | 0.001 | 0.049 | 0.039 |
| Perf-Com (3) | 0.033 | 0.727 | 0.058 | -0.003 | 0.061 | 0.155 |
| Perf-Com (4) | 0.087 | 0.840 | 0.184 | 0.099 | 0.017 | 0.289 |
| Selec-Rec (1) | 0.768 | 0.083 | 0.555 | 0.497 | 0.822 | 0.516 |
| Selec-Rec (2) | 0.749 | 0.069 | 0.666 | 0.654 | 0.912 | 0.544 |
| Selec-Rec (3) | 0.644 | 0.147 | 0.640 | 0.509 | 0.797 | 0.522 |
| Selec-Rec (4) | 0.671 | 0.084 | 0.675 | 0.708 | 0.864 | 0.579 |
| Job-Sec (1) | 0.708 | 0.226 | 0.470 | 0.746 | 0.664 | 0.798 |
| Job-Sec (2) | 0.615 | 0.209 | 0.502 | 0.757 | 0.659 | 0.777 |
| Job-Sec (3) | 0.689 | 0.204 | 0.515 | 0.747 | 0.689 | 0.750 |
| Job-Sec (4) | 0.622 | 0.161 | 0.491 | 0.856 | 0.630 | 0.771 |
| Digit-Tran (1) | 0.480 | 0.129 | 0.534 | 0.745 | 0.420 | 0.712 |
| Digit-Tran (2) | 0.598 | -0.010 | 0.506 | 0.621 | 0.577 | 0.649 |
| Digit-Tran (3) | 0.758 | 0.123 | 0.509 | 0.697 | 0.690 | 0.695 |
| Digit-Tran (4) | 0.611 | 0.094 | 0.492 | 0.873 | 0.664 | 0.702 |
| Organiz-Perfo (1) | 0.505 | 0.309 | 0.421 | 0.677 | 0.412 | 0.880 |
| Organiz-Perfo (2) | 0.620 | 0.185 | 0.507 | 0.739 | 0.390 | 0.859 |
| Organiz-Perfo (3) | 0.664 | 0.200 | 0.511 | 0.711 | 0.400 | 0.924 |
| Organiz-Perfo (4) | 0.632 | 0.286 | 0.450 | 0.684 | 0.272 | 0.864 |