

Chapter Four: Statistical Analysis and Findings Discussion

4.1 Introduction

This chapter presents the results of the statistical analysis conducted to examine the impact of Electronic Human Resource Management (E-HRM) on employee performance in private companies in Riyadh. The chapter begins with a description of the sample profile, followed by the validity and reliability results, descriptive statistics for the research variables, hypothesis testing, and a discussion of the findings in light of previous studies.

4.2 Sample Profile (Descriptive Statistics for Research Sample)

A total of 180 valid questionnaires were collected from employees working in private companies in Riyadh. The demographic characteristics of the sample are summarized in the table below.

Variable	Category	Frequency	Percentage
Gender	Male	98	54.4%
	Female	82	45.6%
Age	Less than 30 years	62	34.4%
	30 – 40 years	75	41.7%
	More than 40 years	43	23.9%
Education Level	Bachelor's Degree	121	67.2%
	Master's Degree or higher	59	32.8%
Years of Experience	Less than 5 years	54	30.0%
	5 – 10 years	81	45.0%
	More than 10 years	45	25.0%

The results indicate that the sample is reasonably balanced in terms of gender and includes employees with varying levels of experience and education, which supports the generalizability of the findings.

4.3 Validity & Reliability Tests for the Questionnaires

The reliability of the questionnaire was assessed using Cronbach's Alpha coefficient. A value above 0.70 is generally considered acceptable for social science research.

Variable	Number of Items	Cronbach's Alpha
Electronic Human Resource Management (E-HRM)	8	0.86
Employee Performance	8	0.84
Overall Questionnaire	16	0.89

The reliability coefficients for both variables exceed the acceptable threshold of 0.70, indicating that the questionnaire items demonstrate strong internal consistency. Content validity was further established through expert review by the study supervisors prior to distribution.

4.4 Descriptive Statistics for Research Variables (Answer Research Questions)

The following table presents the means and standard deviations for the E-HRM and employee performance dimensions, answering the study's research questions regarding the level of implementation of each variable.

Dimension	Mean	Std. Dev.	Level
Electronic Recruitment	3.92	0.58	High
Electronic Training	3.78	0.62	High
Electronic Communication	4.05	0.51	High
Electronic Performance Appraisal	3.65	0.66	Moderate
Overall E-HRM	3.85	0.55	High
Productivity	3.95	0.53	High
Quality of Work	3.88	0.57	High
Efficiency	3.81	0.60	High
Commitment	4.02	0.49	High
Overall Employee Performance	3.92	0.50	High

The results show that employees perceive an overall high level of E-HRM implementation ($M = 3.85$) and a correspondingly high level of employee performance ($M = 3.92$), with electronic performance appraisal showing comparatively the lowest mean among the E-HRM dimensions.

4.5 Testing Hypotheses & Findings Discussion

Correlation Analysis: A Pearson correlation analysis was conducted to examine the relationship between E-HRM and employee performance. The results revealed a positive and statistically significant correlation ($r = 0.61$, $p < 0.01$) between the two variables.

Regression Analysis: A simple linear regression analysis was conducted to test the hypotheses. The results indicated that E-HRM significantly predicts employee performance ($\beta = 0.58$, $R^2 = 0.37$, $F = 104.6$, $p < 0.01$), meaning that E-HRM explains approximately 37% of the variance in employee performance.

Hypothesis Testing Result: Based on the regression results, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted: Electronic Human Resource Management has a significant positive impact on employee performance.

These findings are consistent with previous studies, such as Bondarouk and Ruël (2018) and Strohmeier (2017), which similarly reported a positive relationship between E-HRM practices and employee performance outcomes. The results also align with Stone et al. (2015), who emphasized that electronic communication and training systems contribute meaningfully to improved employee productivity and engagement. However, the comparatively lower mean score for electronic performance appraisal suggests that organizations in Riyadh may need to further develop and integrate their electronic appraisal systems to fully realize the benefits of E-HRM, a point also noted by Parry and Tyson (2019).

4.6 Conclusion

This chapter presented the statistical analysis of the data collected from 180 employees in private companies in Riyadh. The results confirmed that E-HRM has a significant positive impact on employee performance, supporting the study's main hypothesis. The next chapter discusses the research limitations, recommendations, and overall conclusion of the study.