



## Human Capital Management and Organizational Efficiency in Public Sector Universities in Quetta

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### ABSTRACT

This study examines the role of Human Capital Management (HCM) in enhancing organizational efficiency in Pakistan's public sector. Public institutions face challenges such as outdated systems, low employee motivation, political interference, and ineffective performance evaluation. The study highlights the importance of recruitment, training, performance appraisal, and employee development in improving institutional performance and public service delivery. Data were collected through a structured questionnaire from 240 employees working in various public sector departments. The findings indicate a strong positive relationship between HCM practices and organizational efficiency, demonstrating that investment in employees' skills, motivation, and professional development contributes to improved service delivery. International experiences from Malaysia, Singapore, and the United Kingdom further emphasize the significance of effective training, merit-based recruitment, and performance management frameworks. The study suggests that policy development alone is insufficient; successful implementation, continuous monitoring, and improvement are essential for achieving sustainable results. Strengthening HCM practices in Pakistan's public sector can enhance employee effectiveness, institutional responsiveness, and public trust. The study concludes that comprehensive reforms in recruitment, training, performance evaluation, and employee motivation are necessary to promote effective governance, improve public services, and support national development.

## 1. Introduction

### 1.1. Background

Pakistan is the fifth most populous nation in the world with 241.49 million people and growth rate of 2.55 per annum. In the country, the number of civil servants is 436,243. According to the 2022-2023 annual report by Pakistan State Bank, the increase in the wages was as much as 19.1 percent in 2023 and 14.0 percent in 2022. One important aspect that is present in Pakistan is the efficiency of the public sector. The human capital management has come to be recognized as a crucial strategic activity in the various public sector institutions across the world as human capital management is regarded to be a critical element in the comprehensive management of government.

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Governments around the world are spending fortunes on many diverse activities and processes in the quest to make employees more effective and to make contributions and to make organizations successful like in the US, in Canada, Singapore and the UK.

In perspective to Pakistan, Human Capital Management within the public sector is inundated with a number of problems such as old style bureaucratic organizations, non-existence of performances based analysis, politicization of employment, and under investment of employee capacity development. Experts would always be in agreement that regardless of the natural resources available, this would never guarantee economic growth in any country. However, when coupled with well-trained human resources, they have the potential to produce a successful economic feedback. Human capital is therefore one of the major drivers of development (Afridi, 2016). In the new world of knowledge-based economy, collaborative organizational knowledge is the necessity. In addition, in the contemporary world intangible assets, such as knowledge and skills are becoming crucially important in the effort of organizations to stay competitive (Kong & Thomson, 2009).

The movement towards knowledge economy in the world now means that organizations are increasingly relying on knowledge-based resources in order to succeed in their endeavors, which in turn implies that public administration needs to react to the shift of the global economy. The intangible assets and the knowledge are now considered to be a key factor in gaining competitive edge in the public administration as well (Ramirez, 2010). Public administration is very crucial in the society in that they provide much needed services that enhance the living standards of the citizens. In its ineffective operation, the whole community suffers (Kuye, 2014). Also, regions facing poor service delivery will find it hard to compete when it comes to drawing new industries or even businesses. This fact has led to the fact that the provision of efficient public services is one of the most urgent tasks of global agenda (Besley & Ghatak, 2007).

One thing that is very important in the public sector, particularly in developing nations like Pakistan, is efficiency of the state institutions, because they help a lot in delivering key amenities like education, healthcare, infrastructure and justice.

Effective delivery of public service would enhance social welfare, economic development and create confidence with the government on the contrary lack of efficiency duplicates lack of transparency, ineffective trainings, lack of proper resources allocation, ineffective decision making, loss of quality service and loss of trust among others. Pakistan is regarded as an important country in the development of the whole world but one of its lowest scales is that of human capital- that is education and proficiency. The long-term strategy of the country, the vision 2025, looks forward to advancing the education levels and bettering the education provision as it has before. Nevertheless, one cannot see any clear changes that progress is being achieved in. The economy of Pakistan is positive but slowly growing and unstable most of the time. The economy contracted by 1.27 percent in the year 2020 as a result of the COVID-19 impact. It has rebounded in 2021 with a bang of 6.51% rise. However, because of problems with politics and the increase in inflation, the growth slowed down from 4.77 percent in 2022 and nearly to zero in 2023. (Pakistan Economic Survey, 2024). Although Pakistan possesses numerous natural resources, great location, and a large labor market, it has failed to utilize the same to boost the economy thus lagging behind most of the countries. The paper examines the influence of natural capital (NC), physical capital (PC) on the economic growth (EG) of the country and human capital (HC). It proposes a more efficient way of utilizing resources, more investments to be made in more serious aspects such as building, health and education and it defers to developmental issues and ways to solve these problems in a sustainable manner to aid the growth of Pakistan (K. Hussain, Ahmed, Hussain, & Hassan, 2023; M. Hussain, Hassan, Khan, & Khan, 2026).

In the modern competitive world, performance of employees is critical in making an organization successful. The human capital in any company is the employees and whatever they do has a direct effect on the performance of the company hence the need to employ effective employees. It is regarded as a core conceptual framework in organizations psychology and the human resource management. Within the above context, the most valuable and expensive assets of an organization are the employees, who could make or break the company. The article in provides that job performance is affected by various things like the way the organization conducts its policies, trainings, how the job environment is and also the type of relationship that exists between the employers and employees. There are several options of improving job performance and in a competitive market, operational success can be brought about by high performance and lack of performance can lead to organizational demise.

Pakistan has tried on a few occasions to transform its civil service system to enhance the performance of government employees as well as their treatment. This notwithstanding, these attempts have not had the anticipated outcomes. During the period between 2001 and 2021, the government attempted to enhance the motivation of its employees through such strategies as providing them with more training and also minimizing the distance between the generalists and tech-savvy professionals. The National Commission on Government Reforms (NCGR) came up with an ambitious proposal to streamline government jobs to be just like in the private sector in regard to the purpose of these jobs. However, this has not been accomplished very quickly due to political reasons and favoritism. Although the NCGR and most other such reports indicate that employee motivation must always be kept high, motivational levels remain to be low in the public sector owing to the lower pay. The only way to resolve this issue is to ensure that the workers in the public sector are paid to match what is provided in the private sector.

### 1.2. Research Questions

- What role do certain HCM practices (recruitment and selection, training and development and performance appraisal) play to improve the efficiency of the employees in the public sector in Quetta?
- What is the role of strategic HCM practices implementation on the performance of service delivery in the field of the public sector and the effectiveness of the organization?

### 1.3. Research Objectives

- To determine how Human Capital Management (HCM) practices like recruitment, training, and performance appraisal contribute to enhancing the efficiency of public sector organizations in Quetta, Pakistan.
- To establish the level at which the effective HCM strategies lead to the improvement service delivery and its effectiveness in the individual performance of employees in the general institutions.

### 1.4. Significance of Study

The research impact is that it emphasizes the crucial role of Human Capital Management in making the institutions in the public sector their performance responsive and more efficient. The research has provided useful information as to how HR strategies can be improved to enhance the field of public administration in Pakistan by paying attention to the process of recruitment, training and performance appraisal. The results present very important suggestions to policymakers, human resource practitioners and administrators in the process of instituting reforms that would result in superior service delivery, enhanced performance rates by employees and more institutional accountability. In conclusion, the research is an excellent contribution to a wider national goal of realizing a sustainable development and good governance via investment in human capital.

### 1.5. Problem Statement

Efficiency in the public sector in general, is a chronic problem in Pakistan especially in major cities like Quetta and it could be mainly because of unprofessional systems of administration, political intervention in recruitment and failure to invest on the employees. Human Capital Management (HCM) has not received much concern in their governance structures in spite of the fact that Pakistan is a highly populous country with rising pressure on the need of public services. The resultant effect of such negligence is ineffective institutional performance, poor service delivery and low employee motivation. This is why it is of great importance to examine the extent to which effective HCM practices can enhance efficiency of operations of the public sector organizations in Quetta.

## 2. Literature Review

### 2.1. Human Capital Management

Human capital management (HCM) has emerged as a central concept in organizational studies because it directly relates to how firms utilize their workforce to achieve efficiency and performance outcomes. Human capital refers to the knowledge, skills, competencies, and capacities of employees that add value to organizations. The theoretical foundation of this concept is rooted in Human Capital Theory (HCT), which argues that investments in education, training, and skill development of employees increase productivity. Similarly, the Resource-Based View (RBV) positions human capital as a strategic asset that can be a source of sustainable competitive advantage if it is valuable, rare, inimitable, and non-substitutable. A complementary perspective, the Knowledge-Based View (KBV), emphasizes that knowledge is the most critical organizational resource and that human capital plays a central role in creating, sharing, and leveraging this knowledge for efficiency and innovation (Aman-Ullah et al., 2022; Abbas et al., 2024).

Several dimensions of human capital management have been identified in the literature as key drivers of organizational efficiency. Knowledge and learning capabilities are crucial, as organizations that effectively harness employee expertise, experience, and continuous learning tend to make better decisions and innovate more rapidly. Skills and competencies, both technical and soft, ensure that tasks are executed accurately and productively, reducing waste and improving performance. Capacity and adaptability, meanwhile, allow organizations to respond flexibly to market demands, scale operations, and absorb environmental shocks efficiently. Other important practices include recruitment and selection processes that align employees' attributes with organizational goals, training and development initiatives that keep skills up to date, and performance management systems that motivate employees through fair appraisal and reward mechanisms. Leadership also emerges as a critical factor, with innovative and transformational leadership styles enabling organizations to channel human capital more effectively towards efficiency gains (Aman-Ullah et al., 2022; Babatunde & Akinlabi, 2021).

2.2. Organizational Efficiency

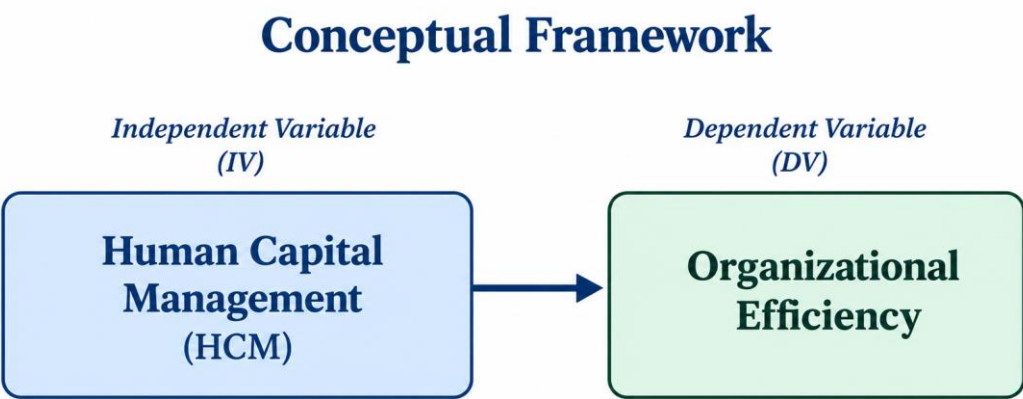
Organizational efficiency is the capacity of an organization to achieve its objectives and produce desired outputs while minimizing waste of time, effort, and resources; it is fundamentally about “doing things right,” whereas effectiveness addresses “doing the right things” (Drucker, 1974). Efficiency is typically measured with a mix of quantitative indicators (for example, productivity per employee or per hour, cost-to-income ratios, cycle time, capacity utilization, defect/rework rates, and return on assets) and qualitative indicators (such as process smoothness, employee morale, and adaptive capability). Modern measurement systems often combine traditional metrics with strategic frameworks like the Balanced Scorecard to link operational metrics to strategic objectives (Kaplan & Norton, 1992), and operations literature highlights process-level metricscycle time, throughput, variabilityas primary levers for efficiency (Slack, Chambers, & Johnston, 2010; Neely, Gregory, & Platts, 1995).

2.3. Human Capital Management and Organizational Efficiency

Human capital management (HCM) and organizational efficiency are closely linked concepts in organizational studies. Human capital encompasses the knowledge, skills, experience, and capacities of employees that contribute to organizational value creation. Human Capital Theory (Becker, 1964) argues that investments in education, training, and skills development enhance productivity, while the Resource-Based View (RBV) positions human capital as a rare and inimitable resource that can yield sustained efficiency advantages (Barney, 1991). Similarly, the Knowledge-Based View (Grant, 1996) emphasizes that knowledge, embodied in employees, is a strategic asset that allows firms to innovate and streamline processes. These perspectives establish the theoretical foundation for understanding why managing human capital effectively has a direct influence on how efficiently organizations use resources to achieve their goals.

Empirical studies provide strong evidence of this relationship. Aman-Ullah et al. (2022) found that human capital dimensionsknowledge, skills, and capacitywere significantly associated with organizational performance in the Saudi hospitality sector, with innovative leadership further strengthening the link between knowledge and efficiency outcomes. In education, Chen et al. (2021) demonstrated that training and development initiatives, recruitment, and performance management practices enhanced institutional effectiveness by reducing inefficiencies in resource use. Similarly, in the construction industry, Alabduljader (2023) observed that workforce skills and demographic factors significantly impacted productivity, while shortages of trained employees were a major constraint on efficiency. These findings highlight that HCM practices such as training, recruitment, rewards, and leadership development act as critical drivers of organizational efficiency across industries.

2.4. Conceptual Framework



3. Research Methodology

3.1. Design of the Research

The research design of the study is defined as causal aiming cause and effect relationship, and such a choice is suitable to investigate the impact of human capital management (HCM) practice on the efficient functioning of state organizations in Pakistan. The descriptive nature will give the researcher a clear outline of the status quo of HCM within the public institutions

and the correlational design will also give opportunities to explore the connections between the different components of HCM, including recruitment, training and performance management, with the efficiency of the service delivery. It is a cross-sectional design, which implies that the information will be gathered once in time to depict the current situation and trends in the work of the public sector.

The study is based on quantitative research, as such research focuses on the acquisition and study of numerical data to conduct a test that checks the hypothesis and helps to analyze relationships between variables. This method is more appropriate in this research with respect to the fact that the effects of various human capital practices in the public sector can be measured statistically. The quantitative approach guarantees objectivity, reliability, and the possibility of extrapolating the findings to several units of the public sector due to all the data being based on structured tools and quantifiable indicators. In addition, this direction gives an opportunity to measure the perceptions of employees on the efficiency of HCM strategies in the organizational efficiency increase.

#### 4. Data Analysis and Results

##### 4.1. Reliability Test

###### Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .866             | 2          |

The reliability analysis carried out using Cronbach Alpha gave the following results illustrated in the table. The Cronbach Alpha was 0.866 of a scale composed of two items. This value depicts that there is a high amount of internal consistency amongst two items which implies that these items are consistent in measuring around the same construct. A Cronbach Alpha of more than 0.7 is accepted and above 0.8 is acceptable. Thus, the alpha value of 0.866 indicates a high level of reliability of the scale even though it has two items.

##### 4.2. Regression Analysis

###### 4.2.1. Model Summary

###### Model Summary

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1     | .767a | .588     | .586              | .42873                     |

a. Predictors: (Constant), HCM

**Interpretation:** The model summary table indicates the extent to which the relationship between Human Capital Management (HCM) and dependent variable occurs. The correlation coefficient (R) = 0.767 which means there is a strong positive linear relationship between HCM and outcome variable. R Square is 0.588 indicating that R Square shows that 58.8 percent of the change in the dependent variable can be attributed to HCM. What it indicates is that HCM is not a random predictor and that it has a substantive role in determining the dependent variable.

###### 4.2.2. ANOVA

###### ANOVA

| Model |            | Sum of Squares | df  | Mean Square | F       | Sig.  |
|-------|------------|----------------|-----|-------------|---------|-------|
| 1     | Regression | 62.462         | 1   | 62.462      | 339.817 | .000b |
|       | Residual   | 43.747         | 238 | .184        |         |       |
|       | Total      | 106.209        | 239 |             |         |       |

a. Dependent Variable: Efficiency

b. Predictors: (Constant), HCM

**Interpretation:** The ANOVA table helps to determine whether the overall regression model is significant and here we have Efficiency as the dependent variable and Human Capital Management (HCM) as the predictor. The regression SS is equal to 62.462 and it denotes the sum of squared difference between the actual values of Efficiency and the hypothetical non conflicting values of Efficiency which is explained by the HCM variable. The remaining sum of squares is 43.747 and shows the value of variation that could not be explained by the model. The total variability of Efficiency is signified by a total value of 106.209 of sum of squares of both of these.

The ANOVA table tests the significance of the regression model in general and the dependent variable is Efficiency and predictor is Human Capital Management (HCM). The regressions sum of squares equal to 62.462 indicates the quantity of changes in the Efficiency brought about by the HCM variable. There is the residual sum of squares= 43.747, which shows the part of the

variation that cannot be fitted by the model. The sum of these is collectively 106.209 which means the total variability in Efficiency.

#### 4.2.3. Coefficients Regression Analysis

| Coefficients |                             |            |                           |        |      |
|--------------|-----------------------------|------------|---------------------------|--------|------|
| Model        | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|              | B                           | Std. Error | Beta                      |        |      |
| 1            | (Constant)                  | 1.249      | .118                      | 10.581 | .000 |
|              | HCM                         | .703       | .038                      | .767   | .000 |

a. Dependent Variable: Efficiency

The coefficients table contains information on the effect of the independent variable, Human Capital Management (HCM) on the dependent variable that is Efficiency. The unstandardized coefficient (B) at the constant (intercept) is 1.249 which implies that at the zero value of HCM, the gut predicted Efficiency is 1.249. Coefficient of HCM is 0.703 which states that when HCM increases by one unit then Efficiency will go up by 0.703 assuming all the other factors are kept constant. The standardized coefficient (Beta) between HCM and HM is taken to be 0.767, which indicates how strong the relationship between HCM and Efficiency is, in its standardized terms. This value proves that the positive influence of HCM on Efficiency is great. The t-value and p-values (Sig.) of HCM stands at 18.434 and .000 respectively which lies much below the value 0.05. This points to the fact that the impact of HCM on Efficiency is not statistically insignificant.

#### 4.3. Correlation Analysis

| Correlations |                     |            |        |
|--------------|---------------------|------------|--------|
|              |                     | Efficiency | HCM    |
| Efficiency   | Pearson Correlation | 1          | .767** |
|              | Sig. (2-tailed)     |            | .000   |
|              | N                   | 240        | 240    |
| HCM          | Pearson Correlation | .767**     | 1      |
|              | Sig. (2-tailed)     | .000       |        |
|              | N                   | 240        | 240    |

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

**Interpretation:** The Pearson Correlation table indicates the degree of correlation between Efficiency and Human Capital Management (HCM) and the level of its significance. The Pearson correlation coefficient between Efficiency and HCM is 0.767 this shows a strong positive correlation since, with an increase in HCM, there is a likelihood of increased Efficiency between the two. The calculated p-value is 0.000, which is much lower than the significance level set at 0.01, which proves the above correlation as statistically significant at the 0.01 level (2-tailed). Both of these variables have a sample size of 240 which implies that the results are founded on a strong data set. Conclusively, the relationship between HCM and Efficiency is positively and significantly correlated.

### 5. Conclusion and Recommendation

#### 5.1. Conclusion

In this case, we have to clearly understand that there is a strong and direct impact of Human Capital Management (HCM) to enhance the efficiency of the organizations in the public sector in Pakistan. There is a major increase in performance when the hiring of official employees is equitable, well educated, and subject to review during periods of time. The consequence of this is that the processes of public service delivery like education, health and infrastructure improve in their effectiveness and responsiveness to needs of the people.

The research established that weak state of the human capital is one of the key causes of poor delivery of public services. Factors that have acted to discourage people who are competent to join or even stay in the public service include low payment rates, demotivation, political consideration in appointment and performance measurement systems that are not up to date. In the past, attempts have been made towards reforms but in a not so good way and a long terms commitment has not been done. The study asserted that there is a positive relationship between HCM factors and service delivery results and in particular, training, recruitment, and performance appraisals with the help of statistical analysis. Take an example of an employee who is well trained; the employee will perform better in his or her job and will be satisfied. In the same manner, an organizations tend to absorb more qualified and committed employees when the recruitment methods are merit based. Accountability and individual development are also ethical work practices that result due to the fair performance appraisals.

Experience of nations such as Malaysia has indicated that better human resource results in better and more effective governance that is people-friendly. Nevertheless, all these reforms will only work well when headed by powerful leadership, which is open and highly monitored. It is even more necessary to develop the HCM in the sphere of the public in Pakistan where economic and political difficulties are usual. It does not seem to be only an improvement of the HR department, but reorganization of the work of the government to make it more professional, skilled and results-oriented. Concisely, the extent to which the government can effectively give way to the use of human capital in Pakistan will greatly determine the future development of the country. Better working HCM practices can lead to stronger institutions, better services and more trust by the people. Due to this, Pakistan must adequately invest and follow proper priority on its human capital as a national resource (M. Hussain, Shah, Durrani, & Hassan, 2023).

## 5.2. Recommendations

It can be concluded based on the results of the presented research that the next recommendations should be provided to enhance Human Capital Management (HCM) and the efficiency in the Pakistani public sector.

1. **Conduct Frequent Trainings and Development:** The government workers are to undergo new training in order to become more skilled and knowledgeable. In this way, it will make the work more efficient and accommodate the modern needs. Training activities should encompass technical activities as well as soft-skilled ones such as communication and problem-solving.
2. **Well-Publicized, and Merit-driven Hiring:** Employment of people in the public sector must be undertaken fairly on qualification and experience basis. The recruitment should not involve political interference since only those who are competent should be recruited.
3. **Enhance Performance appraisal systems:** Establish a simple, objective and objective-based appraisal system. Feedback need to be applied in enhancing improvement of employees, providing incentives on good employee performances as well as suggesting areas of attaining future developments.
4. **Add Motivation, i.e., Increase Pay:** The private sector is also competitive in salaries and benefits that the government offers and this should be motivated in order to retain and hire skilled professionals. Individuals who are motivated play a major role in public service.
5. **Establish an Accountability Culture:** Implement frequent surveillance of the departments and assure managers of failing performance. Have definite objectives in each department and quantify results.
6. **Empower Leadership and Vision:** The leaders of government should own the reforms, undertake examples, and they have to develop a level of trust among workers. Leadership must also be serious and consistent in order to change.
7. **Research and policy feedback: encourage:** To make informed decisions in the future, the continuous study of the HR practices and the performance of the employees should be encouraged by the public institutions.

By taking these measures, Pakistan can develop a more competent, self-driven and productive population in the sphere of work related to the state, thereby enhancing the delivery of public services, and nationally developing.

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