

Implementing Total Quality Management Dimensions in Human Resource Management Functions: A Field Study of Batna Province Services

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Abstract---This study explores the integration between human resource management and total quality management in Algerian public administration, applied to Batna Province services as a practical model. The study adopted a descriptive-analytical approach with questionnaires administered to 151 citizens and 73 employees, revealing a moderate level in applying quality standards to human resource functions. The assurance criterion recorded the highest results among citizens (3.21), while the development and training axis was the best among employees (3.59). The study identified key challenges including weak transparency in promotions, lack of training programs, and poor responsiveness. It provided comprehensive recommendations including developing electronic recruitment methods, restructuring incentive systems, establishing a specialized quality service, and a phased implementation model for development, confirming that integration between the two fields has become a strategic necessity for improving public service quality and achieving citizen and employee satisfaction in Algerian government administration.

Keywords---Total Quality, Management Dimensions, Human Resource Management.

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Introduction

Modern organizations have undergone radical transformations toward implementing quality and excellence concepts in services provided to citizens, where human resource management and total quality management have become among the most important fundamental pillars for the success of both public and private institutions alike. The importance of integration between these two fields lies in their joint aim to achieve efficiency and effectiveness in institutional performance.

Human resources represent the vital and fundamental element in any institution, being the main driver for achieving organizational objectives, while total quality management seeks to ensure the delivery of distinguished services that meet beneficiaries' expectations and achieve their satisfaction. Hence arises the urgent need to find effective mechanisms for integration between these two fields to ensure achieving the best results.

This study aims to explore ways of integration between human resource management and total quality management through applying total quality standards in human resource management functions, relying on an applied field study in Batna Province services as a model for public administration in Algeria. This places us in the problematic of: to what extent does improving human resource management functions according to total quality management standards contribute to providing quality service and how can this be achieved? To answer the central problematic, we adopted the following plan:

- Chapter One: Theoretical and Conceptual Framework
- Chapter Two: Integration between Human Resource Management and Total Quality Management
- Chapter Three: Field Study

Chapter One: Theoretical and Conceptual Framework

Section One: The Nature of Human Resource Management

First: Definition of Human Resource Management

Human resources are defined as all the workforce capable and willing to work and ready to provide added value to society¹. The concept of human resource management has evolved through multiple historical stages, from traditional personnel management to modern strategic human resource management.

Human resource management is defined as "the management that believes that individuals are the most important resources of the organization and works to provide them with all possible means to facilitate their performance of assigned tasks efficiently, in order to achieve required objectives"².

Second: Importance of Human Resource Management

Human resources represent the real source for creating the organization's competitive advantage, where their importance lies in:

- Being the only resource capable of investing and mobilizing other resources in the organization
- Their ability to learn, develop, create and innovate
- Their direct contribution to achieving organizational and strategic objectives
- Their pivotal role in building the organization's culture and values

Third: Objectives of Human Resource Management

Human resource management seeks to achieve a set of basic objectives that include⁴:

- Achieving balance between organizational and individual objectives
- Providing the institution with highly competent employees
- Developing and motivating individuals to achieve the best possible performance
- Building sound human relationships within the organization
- Ensuring optimal use of available human resources

Fourth: Basic Functions of Human Resource Management

The basic functions of human resource management include the following⁵:

1. Human Resource Planning

Includes forecasting future human resource needs and planning to meet these needs in alignment with the organization's strategy.

2. Job Analysis and Description

Involves studying and analyzing jobs and determining tasks, responsibilities, and qualifications required for each work position.

3. Recruitment and Selection

Includes attracting qualified candidates and selecting the most suitable among them for vacant positions according to specific criteria.

4. Training and Development

Aims to develop employees' capabilities and skills and provide them with necessary knowledge and competencies to perform their tasks effectively.

5. Performance Evaluation

Includes measuring and evaluating employee performance periodically to identify strengths and weaknesses and take appropriate corrective measures.

6. Compensation and Incentive Systems

Includes designing and managing compensation and incentive systems that motivate employees and achieve justice and fairness.

Section Three: Total Quality Management

First: Definition of Quality and Total Quality Management

The American Society for Quality Control defined quality as: "the totality of features and characteristics of a product or service capable of satisfying specified needs"¹⁰.

Total Quality Management is defined as "a strategic approach aimed at achieving efficiency and effectiveness in managing the organization through continuous improvement in all processes and activities with the participation of all employees"¹¹.

Second: Philosophy of Total Quality Management

The philosophy of total quality management is based on several basic principles¹²:

1. Customer Focus

Customer satisfaction (internal and external) is considered the primary objective of all activities and processes in the organization.

2. Continuous Improvement

Means making continuous effort to improve work, processes, and services provided through applying Kaizen methodology and Deming's wheel (PDCA).

3. Teamwork

Emphasizes the importance of forming work teams and cooperation among all departments and administrative levels to achieve quality objectives.

4. Top Management Support

Implementing total quality management requires complete commitment and continuous support from top management.

5. Strategic Quality Planning

Includes setting a clear quality strategy and linking it to the organization's general strategy.

Third: Quality Standards and Dimensions

Quality standards include the five dimensions mentioned previously (tangibility, reliability, responsiveness, assurance, empathy) in addition to other standards such as:

- Efficiency in resource utilization
- Effectiveness in achieving objectives

- Flexibility in dealing with variables
- Innovation and continuous development

Fourth: Obstacles to Implementing Total Quality Management

Organizations face several challenges when implementing total quality management¹³:

- Lack of effective follow-up and monitoring
- Weak coordination between different departments
- Lack of experience and knowledge of quality concepts
- Resistance to change by some employees
- Weak administrative and financial support
- Lack of appropriate incentive systems
- Weak teamwork culture

Chapter Two: Integration between Human Resource Management and Total Quality Management

Section One: Importance of Integration between the Two Fields

The integration between human resource management and total quality management gains great importance in the modern era, as both fields seek to achieve efficiency and effectiveness in institutional performance. Human resources are the basic driver for implementing quality standards, while total quality provides the methodological framework for improving the performance of these resources¹⁴.

The objective of this integration is to create an integrated system that combines best practices in human resource management with total quality principles to ensure achieving organizational objectives at the highest level of efficiency and quality.

Section Two: Mechanisms for Applying Total Quality Standards in Human Resource Management Functions

First: Applying Quality Standards in Human Resource Planning

The quality of human resource planning can be enhanced through:

- Strategic Foresight: Using advanced forecasting tools to accurately determine future needs
- Quantitative and Qualitative Analysis: Applying quality standards in analyzing data and information related to human resources
- Participatory Involvement: Involving all administrative levels in the planning process
- Continuous Review: Applying the principle of continuous improvement in human resource plans

Second: Applying Quality Standards in Recruitment and Selection Mechanisms for improving the quality of recruitment and selection processes include:

- Setting Clear Criteria: Accurately and clearly defining required specifications and competencies
- Diversifying Recruitment Channels: Using multiple means to reach the best candidates
- Applying Justice and Transparency: Ensuring equal opportunities and transparency of procedures
- Using Advanced Selection Tools: Applying standardized professional tests and interviews
- Continuous Process Evaluation: Continuously reviewing and developing recruitment and selection procedures

Third: Applying Quality Standards in Training and Development

The quality of training and development programs can be enhanced through:

- Identifying Training Needs: Conducting accurate analysis of gaps in skills and knowledge
- Designing Specialized Programs: Developing training programs that meet actual employee needs
- Using Diverse Training Methods: Applying modern learning methods and technology
- Measuring Training Effectiveness: Evaluating training program results and their achievement of objectives

- Continuous Development: Updating training programs according to changing work requirements

Fourth: Applying Quality Standards in Performance Evaluation Mechanisms for improving performance evaluation quality include:

- Setting Objective Criteria: Determining clear and measurable performance indicators
- Multi-source Evaluation: Obtaining evaluations from diverse sources
- Continuous Feedback: Providing continuous rather than just annual evaluation
- Linking Evaluation to Development: Using evaluation results to develop individual development plans
- Justice and Fairness: Ensuring application of unified standards to all employees

Fifth: Applying Quality Standards in Compensation and Incentive Systems

The quality of compensation and incentive systems can be improved through:

- Internal and External Equity: Ensuring fair wages compared to the market and within the organization
- Linking Incentives to Performance: Designing an incentive system that rewards outstanding performance
- Diversifying Incentives: Providing diverse material and moral incentives
- Transparency in Application: Clarity of criteria for obtaining incentives and promotions
- Periodic Review: Updating compensation systems according to economic variables

Section Three: Integrated Model for Quality-Based Human Resource Management

The integrated model is based on incorporating total quality principles into all human resource management functions, where this model forms a comprehensive framework that ensures achieving the following objectives¹⁵:

- Improving the quality of services provided to citizens
- Increasing employee satisfaction and motivation to work
- Enhancing efficiency and effectiveness of administrative processes
- Building an organizational culture focused on quality and excellence
- Achieving continuous development of institutional performance

Chapter Three: Field Study Applying Total Quality Standards in Human Resource Management Functions in Batna Province Services

Section One: Study Methodology and Research Sample

First: Study Methodology

This study adopted the descriptive-analytical method and statistical method in studying the phenomenon, as it is one of the most suitable methods for the phenomenon under study due to its accurate and detailed knowledge about reality perception. Statistical methods were also adopted to analyze and test hypotheses using SPSS-PC program¹⁶.

Second: Data Collection Tools

Basic tools were adopted for data collection including¹⁷:

- Field observation in Batna Province headquarters services for human resource management
- Personal interviews with several officials in the institution
- Questionnaire as the main tool for collecting data from citizens and employees

Third: Study Population and Sample

The study population consists of all citizens who benefit from and request public services provided by Batna Province headquarters services, in addition to employees of these services.

1. Citizens Sample

A simple random sample was selected from visitors to Batna Province headquarters, where 240 questionnaires were distributed, 220 were returned, and 151 were adopted for meeting conditions with a return rate of 68.6%.

Demographic Characteristics	Distribution	Percentage
Males	71	47%
Females	80	53%
University Degree Holders	100	66.2%
Below University Level	51	33.8%

2. Employee Sample

100 questionnaires were distributed to province headquarters employees, 73 were adopted with a return rate of 82%.

Demographic Characteristics	Distribution	Percentage
Males	36	49.3%
Females	37	50.7%
University Degree Holders	53	72.6%
More than 15 years experience	28	38.4%
10-15 years experience	16	21.9%
5-10 years experience	22	30.1%
Less than 5 years experience	7	9.6%

Fourth: Validity and Reliability Tests

The questionnaire reliability was tested using Cronbach's Alpha method, reaching 0.60 for the citizens' section and 0.95 for employees, indicating that the tool has statistically acceptable reliability¹⁸.

Section Two: Results Presentation and Analysis

First: Citizens' Questionnaire Results

The citizens' questionnaire was organized according to five basic axes representing public service quality standards:

1. Tangibility Axis (Questions 1-5)

Statement	Mean	Std. Deviation	Agreement Level
External appearance of offices suggests quality	3.72	1.12	Moderate
Availability of modern equipment and facilities	3.45	1.28	Moderate
Clarity of regulations and guidelines	3.28	1.15	Moderate
Cleanliness and organization of service location	3.60	1.09	Moderate
Employees wear unified formal attire	1.76	0.94	Weak
Overall Axis Mean	3.16	1.12	Moderate

2. Reliability Axis (Questions 6-10)

Statement	Mean	Std. Deviation	Agreement Level
Accuracy of provided information	3.42	1.18	Moderate
Completing transactions within specified time	2.85	1.23	Moderate
Fulfilling made promises	2.98	1.15	Moderate
Absence of errors in service	2.06	1.02	Weak
Professionalism in dealing	3.04	1.20	Moderate

Overall Axis Mean	2.87	1.16	Moderate
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3. Responsiveness Axis (Questions 11-15)

Statement	Mean	Std. Deviation	Agreement Level
Speed of response to citizens' requests	2.34	1.12	Weak
Employee availability at workplace	1.89	0.95	Weak
Employee readiness to provide assistance	2.45	1.18	Weak
Clarity of service obtaining procedures	2.18	1.04	Weak
Flexibility in service delivery	1.99	0.98	Weak
Overall Axis Mean	2.17	1.05	Weak

4. Assurance Axis (Questions 16-20)

Statement	Mean	Std. Deviation	Agreement Level
Trust in institution and employees	3.15	1.22	Moderate
Confidentiality of personal information	3.48	1.14	Moderate
Fairness in dealing with citizens	2.75	1.28	Moderate
Professional competence of employees	3.08	1.18	Moderate
Feeling of security during transaction	3.59	1.06	Moderate
Overall Axis Mean	3.21	1.18	Moderate

5. Empathy Axis (Questions 21-25)

Statement	Mean	Std. Deviation	Agreement Level
Employee interest in citizens' problems	2.68	1.15	Moderate
Considering citizens' special circumstances	2.45	1.20	Weak
Dealing with kindness and respect	3.99	1.02	High
Understanding citizen needs	2.87	1.18	Moderate
Treatment with cheerful and positive spirit	2.61	1.25	Moderate
Overall Axis Mean	2.92	1.16	Moderate

Second: Employee Questionnaire Results

The employee questionnaire was organized according to three basic axes representing human resource management functions:

1. Recruitment and Selection Axis

Statement	Agreement %	Mean	Assessment
Employment process goes through multiple stages	68.5%	3.72	High
Selecting competent individuals for sensitive positions	61.7%	3.58	High
Interview as basis for selecting suitable employee	56.1%	3.45	Moderate
Justice and equal opportunities in promotions	5.5%	1.89	Weak
Transparency of employment procedures	42.5%	3.12	Moderate

Overall Axis Mean	46.8%	3.15	Moderate
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2. Human Resource Retention Axis

Statement	Agreement %	Mean	Assessment
Existence of salary and incentive systems	58.9%	3.42	Moderate
Salary commensurate with living standards	21.9%	2.34	Weak
Incentives encourage creativity	28.8%	2.56	Weak
Promotions subject to objective controls	34.2%	2.78	Moderate
Encouraging employees to innovate	39.7%	2.92	Moderate
Overall Axis Mean	36.7%	2.80	Moderate

3. Development and Training Axis

Statement	Agreement %	Mean	Assessment
Existence of modern training programs	62.7%	3.64	High
Objective and periodic performance evaluation	57.5%	3.48	Moderate
Transition to electronic administration	74.0%	3.85	High
Effectiveness of internal training courses	49.3%	3.28	Moderate
Availability of effective internal communication network	68.5%	3.72	High
Overall Axis Mean	62.4%	3.59	High

Third: General Results Analysis

The overall results of the study indicate that the level of applying total quality standards in human resource management functions in Batna Province services is at a moderate level, with clear variation between different axes.

From citizens' perspective: Results showed that the most achieved criterion was assurance (3.21), followed by tangibility (3.16), then empathy (2.92), reliability (2.87), and finally responsiveness (2.17) which recorded the lowest results.

From employees' perspective: The development and training axis was the best implemented (3.59), followed by recruitment and selection (3.15), then human resource retention (2.80) which recorded the lowest results.

Section Three: Recommendations and Suggestions

Based on the field study results, the following recommendations and suggestions can be provided to improve the application of total quality standards in human resource management functions¹⁹:

First: In Recruitment and Selection Field

- Reconsidering recruitment methods: Transitioning from traditional employment systems to job advertisements according to clear job description cards
- Adopting merit-based appointment: Employment based on quality principles and actual efficiency rather than personal considerations
- Launching electronic recruitment system: Developing an independent electronic platform for recruitment ensuring transparency and fairness
- Activating expert committees: Involving psychology and management experts in interview and competition committees

Second: In Human Resource Retention Field

- Redesigning salary and incentive systems: To support fairness and link to actual employee performance
- Enhancing transparency: In promotion and incentive processes and ensuring criteria clarity
- Participatory involvement: Involving employees themselves in setting incentive and penalty systems
- Developing talent retention programs: Setting strategies to retain highly competent individuals

Third: In Development and Training Field

- Building modern training policies: Developing continuous professional training programs linked to actual requirements of the institution and citizens
- Generalizing electronic administration: Updating information infrastructure to facilitate service and stimulate efficiency
- Setting periodic evaluation system: Developing performance evaluation system with continuous feedback
- Investing in professional development: Allocating sufficient resources for continuous development and qualification programs

Fourth: Structural and Administrative Recommendations

- Establishing quality service: Founding a specialized service in public service quality within the province's organizational structure
- Forming specialized units: Creating units for monitoring, implementation, and evaluation
- Developing performance indicators: Setting performance measurement indicators according to total quality standards
- Enhancing coordination: Improving coordination between different services and administrations

Conclusion

Through this in-depth study on the integration between human resource management and total quality management, and through theoretical analysis and field application in Batna Province services, a set of important results and conclusions were reached that confirm the importance of this integration in improving public institution performance and service quality.

First: Theoretical Results

The theoretical study showed the existence of natural compatibility and integration between human resource management concepts and objectives and total quality management principles. Both focus on the human element as the basic axis for development and aim to achieve efficiency and effectiveness in performance, seeking to meet beneficiaries' needs and achieve their satisfaction.

Second: Field Results

The field study revealed that the level of applying total quality standards in human resource management functions in Batna Province services is at a moderate level, with clear variation between different axes. The assurance axis recorded the highest results from citizens' viewpoint, while the responsiveness axis was the weakest. From employees' viewpoint, the development and training axis achieved the best results, while the human resource retention axis recorded the lowest levels.

Third: Challenges and Obstacles

The study identified several challenges facing the application of integration between human resource management and total quality management, most notably: weak transparency in promotion and incentive processes, inadequate training and development programs, poor responsiveness to citizens' needs, and lack of electronic administration techniques application.

Fourth: Solutions and Recommendations

The study provided a comprehensive set of recommendations to improve the integration level, including: developing recruitment and selection systems, improving salary and incentive systems,

intensifying training and development programs, establishing a specialized quality service, and applying a phased model for development and continuous improvement.

Fifth: Expected Effects and Benefits

Applying integration between human resource management and total quality management will lead to improving public service quality, increasing citizen satisfaction, enhancing employee efficiency, improving work environment, and strengthening trust in public institutions.

Sixth: Future Directions

The study indicates the necessity of continuing to develop this field through: conducting more applied research and studies in different institutions, developing more accurate and comprehensive measurement and evaluation tools, exchanging experiences and expertise with advanced institutions locally, regionally and globally, and continuous investment in training and development.

Finally, this study confirms that integration between human resource management and total quality management is not merely administrative luxury or passing trend, but an inevitable necessity for any institution seeking to achieve performance excellence and service leadership. The success of this integration requires serious commitment from leadership, real investment in development, and organizational culture that believes in the importance of quality and excellence in all aspects of work.

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