

Article

# Performance of public service employees in Makassar: Hard & soft analysis of human resource management approach

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Abstract: This study examines the impact of Human Resource Management (HRM) practices, specifically Compensation, Job Design, and Training, on employee outcomes, including Engagement, Efficiency, Customer Satisfaction, and Innovation within an organizational framework. Employing a quantitative research methodology, the study utilizes a crosssectional survey design to collect data from employees within a public service organization, analyzing the relationships through structural equation modelling. Findings reveal significant positive relationships between HRM practices and employee performance metrics, highlighting the pivotal role of Employee Engagement as a mediator in enhancing organizational effectiveness. Specifically, Compensation and Job Design significantly influence Employee Engagement and Efficiency, while training is crucial for driving Innovation and Customer Satisfaction. The practical implications of this research underscore the necessity for organizations to adopt integrated and strategic HRM frameworks that foster employee engagement to drive performance outcomes. These insights are vital for HR practitioners and organizational leaders aiming to enhance workforce productivity and innovation. In conclusion, the study contributes valuable perspectives to the HRM literature, advocating for holistic HRM practices that optimize employee well-being and ensure organizational competitiveness. Future research is encouraged to explore these dynamics across various sectors and cultural contexts to validate the generalizability of the findings.

**Keywords:** human resource management; public service performance; employee efficiency; customer satisfaction; innovation; hard HRM practices; soft HRM practices

#### 1. Introduction

The performance of public service employees, especially in the context of Makassar, Indonesia, emerges as a significant area of study within human resource management (HRM) (Junanto, 2018). The strategic management of human resources in public sector organizations has become increasingly vital, given its direct impact on the effectiveness and efficiency of public services (Putra et al., 2020). In the backdrop of rapidly urbanizing societies, Makassar is an illustrative example of the challenges and opportunities faced by public service sectors (Taufik et al., 2023). The city's demographic and economic growth has escalated the demand for efficient and effective public services, making the performance of public service employees a subject of critical importance (Budhwar and Debrah, 2001; Daraba et al.,2018). As public expectations continue to evolve, the pressure on public sector organizations to deliver high-quality services has intensified and the role of HRM in fostering a workforce capable of meeting these demands.

This research, therefore, attempts to analyze human resource management (HRM) used in the public service sector of Makassar, Indonesia, including the hard and soft

aspects of human resource management. The difficult things are those tangible, strategic ways of managing employees, including annual appraisals, remuneration and project training. Otherwise, the soft elements comprise mainly the non-tangible features of HRM, such as the organizational culture, employee engagement and leadership styles. This research study takes a holistic approach by exploring both hard and soft approaches to HRM in the context of Makassar, Indonesia's public service, which is one of the unique features of the present research. Previous examinations of this topic often focused on either of the two concepts separately or in the context of the private sector, which brought insufficient knowledge on how these strategies work and are helpful in the context of performing work in the public sector (Truss, 2001; Wright and Boswell, 2002). Hence, this study aims to fill the gap by yielding empirical evidence on the combined effects of hard and soft human resource management actions as they relate, in particular, to Makassar and its unique traits and specificities.

One of the main problems employers face is choosing human resource management strategies that are either too flexible and modern or extremely hard, which do not help find a balance between hard and soft approaches to employees. Conversely, a heavy reliance on brutal HRM practices such as rigid performance indicators and compensation plans can create a workforce characterized by employees with low self-esteem who are unmotivated as they see their performance is not recognized beyond merely the output they create (Armstrong and Taylor, 2023).

However, over-emphasizing these soft HRM practices is problematic since such a sole focus on culture and the importance of employee engagement, without paying enough regard to performance standards and accountability, will lead to an inefficient culture and a lack of shared goals at the personnel and organizational level. Aside from this, the constant and growing demands of public infrastructure, brought about by technological breakthroughs, demographic changes and the dynamical society, arise following, escalating the challenge of Human Resources Management. In addition, innovation entails a workforce that is not only talented but also adaptable and deeply imbued with the spirit that underpins the mission and values of public service during this period of accelerated change (Heffernan and Dundon, 2016). However, the current public sector HR systems in Makassar need to be more agile and futuristic to provide employees with the necessary readiness to face these emerging challenges; therefore, there will be some gaps in terms of service delivery, which will ultimately trample on trust.

The intricate challenges experienced by the public service sector of Makassar are not just a local problem of governance, but they are part of broader systemic problems in managing human resources in emerging urban centres. It shall be critical to the ability of the city to meet its developmental objectives whilst delivering against the ever-increasing demand for essential services from its rapidly growing population of citizens (Khoso et al., 2024). For this present study, the problem shall be defined to the point of concern of this research, which lies in identifying and analyzing the inefficiencies and challenges that reside in the current HRM approach adopted by the public sector of Makassar. The main problem in the human resources management (HRM) in the public sector of Makassar is the inconsistency of bureaucratized context owing to the "hard" and "soft" models (Shen et al., 2010). A recent investigation establishes a correlation between the effects of human resource diversity management

on organizational citizen behaviour and in the Chinese context. Specifically, it was found that the traditional bureaucratized culture within the public sector organization often conflicts with the complex human resources management that is more performance-oriented and strategic. (Guo et al., 2011.) This situation is very often coloured by its conservatism, the spirit of tradition and an environment that fails to address the ever-changing and dynamic needs of the public. Such a city as Makassar could find the public services being hampered by specific issues, such as the fact that it is the period of the fastest urbanization and population growth projects (Purbasari et al., 2018). The limitation of agility and responsiveness in service delivery can be fatal for many vital services.

The importance of research is based on its aim to investigate the public service sector within Makassar, Indonesia, focusing on HRM practices, a relatively unexplored area. The novelty of this research lies in the fact that it does not only analyze some 'hard' variables but also 'soft' variables of human resource management while taking into account the peculiarities of the public sector. These two approaches, therefore, facilitate a better understanding of how these HRM practices are related to each other and employees' attitudinal and behavioural outcomes. Previous research has sometimes analyzed these elements separately or has stated mostly private sector benefits of their application. In contrast, the present research fills an essential gap in the literature by studying how these factors interact in public sector organizations subject to different rules and requirements (Atmaja et al., 2022; Hofstede, 1980). Makassar is essential for analyzing the context of the city's video as it is quickly becoming an urbanized area with a shifting population. Indeed, with the city's recent development, the need for proper and efficient public service running is unparalleled. Consequently, this study is essential in outlining and availing a perspective on the current or similar specific uniqueness of such environments and the HRM challenges affecting public sector organizations. The findings are expected to offer practical recommendations to support the specific strategy mentioned by the policymakers and the HR practitioners in charge of public service to optimize public service delivery, hence improving the standards of governance and the general welfare of society.

This research focuses on enhancing the configurations of hard and soft HRM strategies in a bureaucratic public sector. The contradiction and clash between these practices create gaps, and adversary impacts on the concerned employees, negatively affecting service delivery (Junanto, 2018; Khan, 2017). Thus, with the empirical investigation of these dynamics, the research intends to present a causal equilibrium of the HRM model, which may be beneficial for replication in similar cities experiencing the same problems worldwide. Furthermore, this research contributes to the existing HRM literature by presenting findings from a non-Western context, even though it covers Western countries vastly. Thus, it provides a culturally sensitive view that is sensitive to the peculiarities of the organizational and social contexts of Makassar, thus contributing to the development of the international scholarly literature focused on HRM practices. The managerial implications of this study highlighted the significance of implementing comprehensive HRM strategies in public sector organizations to enhance employees' commitment and creativity needed to respond to the dynamic needs of citizens residing in urban areas.

The core problem this research addresses is the inefficiency and suboptimal

performance in the public service sector of Makassar, stemming from the inconsistent application of hard and soft HRM practices. In the current bureaucratic context, there is a notable tension between rigid, performance-oriented HRM strategies (hard HRM) and more flexible, employee-centred approaches (soft HRM). This dichotomy creates a challenging environment where employees may feel undervalued, unmotivated, or misaligned with organizational goals, leading to reduced engagement, lower efficiency, and inadequate service delivery. Furthermore, the traditional bureaucratic culture within Makassar's public sector often conflicts with innovative HRM practices needed to respond to modern challenges. This misalignment can result in a workforce that is either overly constrained by rigid policies or needs more accountability and performance orientation, which are necessary for effective service delivery. These issues are compounded by the rapid urbanization and increasing demands on public services in Makassar, necessitating a more agile and responsive HRM framework. The research seeks to fill this gap by providing empirical evidence on how an integrated approach to HRM, balancing both hard and soft practices, can enhance employee performance and service delivery in the public sector. By doing so, it aims to offer practical recommendations for policymakers and HR practitioners in Makassar and similar urban centres, ensuring that HRM strategies are culturally appropriate and effective in meeting contemporary public service demands.

The strategies which fit the ones in the culture that is more individualistic or has low power distance may not be the right solution or not the one that is effective in Makassar culture, which is a culture that includes a lot of norms and expectations (Junanto, 2018; Khan, 2017). The nature of the problem itself, thus, is a reminder that decision-makers and managers need to develop a sound judgment and understanding of the issue and its best practices to manage this vital resource appropriately in Makassar (Putra et al., 2020). The process comprises a complete investigation of the features of hard and soft HRM styles and assessing and implementing approaches relevant to the cultural context and the organizational realities. The purpose is to develop a public council's workforce that is well-balanced and effective and can withstand crises and changes in the city and its occupants to keep up with the rapidly changing demands.

These two factors create a performance-inhibiting environment in the public sector. This study is, therefore, conducted to identify how the soft and hard HRM practices interact and the impact of their intricate interactions on employee performance. This research provides perspectives and recommendations that can trigger the implementation of group-specific and versatile HRM strategies to improve service delivery in Makassar's public institutions. The obtaining of this research could provide a condensed version as a valuable key for decision-makers in local authorities, as well as for the human resource-related concerns of all managers both in Sudan as well as all over the world, that are confronted with a dilemma concerning the human resource management in this age of new uncertainties, which is characterized by the growth of the Fourth Industrial Revolution.

## 2. Literature review

# 2.1. Hard HRM practices

#### 2.1.1. Compensation

Recent studies have posited that a well-structured compensation system is not merely a tool for remuneration but a strategic asset that can foster organizational commitment and align employee objectives with corporate goals (Ilyas et al., 2020). When effectively implemented, compensation is an intrinsic motivator that enhances employee engagement and productivity (Khan, 2017). This conception is further identified by Armstrong and Taylor (2020); hence, compensation strategies must be comprehensively designed to represent the organization's values and mission so employees can be valued and rewarded without necessarily feeling exploited. Due to the critical economic, technological, and social changes, there is a need for an updated system of compensation with performance-based elements as a priority. According to Connelly et al. (2019), performance-related rewards are known to be among the most efforts as they are tied to either individual or team performance indicators, making them accountable and having proven performance capacity. The payment incentives are supposed to form the backbone of the belief that the extrinsic approach (money) is directly linked to the motivational factors, which form the basis of employee performance.

In fact, due to the globalization of business operations, an extra layer of complexity to compensation management has emerged; therefore, a multifaceted approach that factors into the cultural, legal, and economic differences among regions (Khoso et al., 2024) must be applied. The problem of multinational corporations is defining compensation packages that are at the proper level and adaptable to different market conditions. Here is the role of HRM practitioners who should be deeply knowledgeable about international HR practices (Liu et al., 2023). In government institutions, compensation strategies are usually bound by budgetary limits and intensive public oversight, limiting the dynamic and competitiveness of public service remuneration compared to those of the private sector (Jiang et al., 2023). Despite all the difficulties of compensation practices like non-financial attractions, professional development prospects and work-life balance tendencies, it is a functional strategy for employee satisfaction and retention in public sector organizations (Suma and Siregar, 2023). Critics of the performance-based compensation model argue that the act might lead to negative consequences as the employees may be compelled to compete against each other, focus on getting short-term results rather than long-term goals, and manipulate performance metrics (Kuvaas et al., 2017). This brings out that one of the most critical issues in designing incentive systems is to make them explicit, fair, and by the ethical norms because they create a negative impact if they do not conform to the standards. The strategy fails after bringing short-term benefits.

## 2.1.2. Job design

The integration of technology and its impact on employees' roles is one of the topics related to job design and the evolution of technology. The digital transformation covering all industries now requires the revision of job positions, given the demand for flexibility and increased digital skills as crucial job design criteria (Tursunbayeva

and Renkema, 2023). This transformation indicates that the workplace changes; when job structures become more flexible, they are less hierarchical and more dynamic. This environment is quite different for young employees to learn their job skills, and it is also the same for various generations to communicate and discuss. Therefore, it is an open environment. These guidelines can fit different types of work and match the demand of employees to have a free place and a good balance between work and leisure. Another fundamental characteristic of job design is job enrichment and job crafting. The job enrichment approach extends an employee's workplace responsibility to improve control, demand more diverse activities and offer a sense of importance and accomplishment in their work that is associated with increased job satisfaction and intrinsic motivation (Bakker et al., 2023).

On the contrary, rather than being subject to job alterations that limit their potential, employees can mould their existing positions to help them utilize their skills, passions, and primary preferences (Wrzesniewski and Dutton, 2001). Doing that makes those employees feel more independent and master, directly contributing to increased involvement and productivity. It also reflects the significance of allowing workers to influence their work surroundings.

Psychological aspects of a job design are unveiled in the job demands resources (JDR) model, which claims that too many jobs' demands, when compared to job resources, lead to burnout and dispute engagement (Bakker and Demerouti, 2017). This model stipulates that well-planned jobs ensure that employees have adequate resources to handle their job duties in a way that they acquire resilience and job performance is ensured (Griffin et al., 2007). This view sheds light on the fact that the job design must include the mental impact of it as well. Thus, the employees remain highly productive and psychologically sound while working. Empirical investigation shows that job design's direct and indirect impacts on organizational outcomes can be overestimated. For instance, job design that may offer autonomy and task variety will likely prompt higher organizational, innovation and adaptability (Jia et al., 2023). Lastly, activities on the job that match individual responsibilities with organizational things may lead to a higher sense of individual belonging, competence and commitment, resulting in low turnover rates and high organizational loyalty (Naqshbandi et al., 2024).

Nevertheless, the literature mentions the difficulties of establishing the job design that would be right for the work context. As the workforce becomes more talented and varied in terms of individuals' perceptions about their competencies and work preferences, designing jobs receives more attention and robust solutions, which can successfully face diversity (Griffin and Parker, 2007). Also, the unpredictably changing external environment, mainly characterized by technological innovations and evolving market trends, provides the company with abundant challenges to sustain its relevant and appropriate job design practice.

# 2.2. Soft HRM practices

#### 2.2.1. Training

Training purposes for employees in the public service context are acknowledged for having a dual effect of developing employees' knowledge and abilities and creating

and maintaining a culture of social improvement and transformation (Trewes and Noe, 2019). Training is, however, perceived as a unique tool for developing employees, a process that slows down employee attrition and improves their abilities to perform their current and future roles effectively. Higher education for public servants is an indispensable part of this process. It always remains in the dynamism of the public environment, where modifying societal requirements and technological advancements require continuous improvement of employee skills. Meanwhile, the literature highlights that the precision of training has to be to the organization's goals. Practical training involves a thorough needs assessment, which helps identify the missing skills and defines the priority organizational issues to overcome performance shortcomings and weaknesses successfully (Armstrong and Taylor, 2014). This alignment of training programs proves itself resourcefully efficient and capacity-building in the sense that it strengthens the public service personnel of our Makassar capital city of Sudan.

Talent management and human resource management soft practices help to understand the role of training in the professional behaviour of an employee (Blustein et al., 2024). Employee motivation can be upgraded by applying the Self-Determination Theory approach, which involves a training program designed towards employees' growth needs and offers opportunities for competence development. Thus, the cause-and-effect connection can be studied, with training indirectly influencing organizational results via a rise in workers' motivation, leading to higher levels of job engagement and performance. Studies from the public sector have shown that this need is already observed, pointing to the link between training and performance. Furthermore, Liu et al. (2023) investigated public service motivation and training results, revealing a link between well-committed training programs and enhanced service orientation in staff. This tended to increase the level of service delivery. Therefore, achievements like these highlight the position training in driving employees' personal growth and the whole company, including the service-focused organizational culture. Nevertheless, impediments such as budget limitations, differing department needs, and identifying ways participants can effectively use the knowledge they acquired after school are common difficulties when developing effective training programs in the public service (Darazi et al., 2023). Such difficulties require creating innovative and flexible training approaches, such as blended learning approaches or training schemes tailored to various occupational fields' needs, for the training workforce of the public service to be effective.

## 2.2.2. Employee engagement

Employee engagement is a pivotal construct within Human Resource Management (HRM), often heralded as a critical determinant of organizational success (Susanto et al., 2023). This literature review encompasses complexities of employee engagement as an organizational determinant affecting business outcomes, whereas the latest research findings are the key focus of this body of work. Employee engagement reflects the degree to which an employee has invested emotionally and psychologically in their job and the organization (Broccoli et al., 2023; Pincus, 2023). Employees who are engaged are not simply like other employees present in their workplace only physically but also emotionally, and more importantly, they use their

pears and minds. They are cognitively involved, and they contribute their best efforts toward the achievement of organizational goals. Employee engagement is crucial to company performance because it correlates with positive performance and contributes to building a resilient and adaptable workforce (Susanto et al., 2023). The more recent literature claims a three-dimensional interpretation of employee engagement, where this description consists of emotional, cognitive, and physical engagement. Emotional engagement means employees must feel something, like desire, energy, and zeal, even if it is not just work.

Cognitive engagement is essential because it is about how employees think about the organization, their leaders, and the environment. Physical engagement is related to the ability of the employees to do a physically demanding job (Bakker and Demerouti, 2008). Knowing these dimensions is crucial for organizations to structure their engagement systems to guarantee high employee engagement levels. Employee engagement has been thoroughly researched in the quest to establish its antecedents. The leading influencers include those at the helm of leadership, the organization's culture, job characteristics and HRM practices. The propositions of transformational leadership are directly connected with high engagement levels, which suggests that such leadership can help increase engagement significantly when leaders are genuinely concerned about the employees' well-being, participate in meaningful conversations, and try to inspire their followers. On the other hand, in addition to the aforementioned positive characteristics, fairness, openness, and employment engagement are also found to be influential to the same degree (Arif, 2023).

Evidence regarding HRM practices such as training, performance management, and job design and their impact on employee engagement are also well-analyzed. Those HRM practices create the ground for the employees, and their development, recognition, reward and job satisfaction are essential for the engagement of the employees (Davis and Van der Heijden, 2023). This emphasizes the competence of HRM and creates an environment where employees are supported, and their engagement is nurtured. The results of high employee engagement overlap; the effects of the individual aspects and the general organizational level are evident. Engaged staff generally have been a strong performer, innovative, excellent in customer service and have a low turnover (Harter et al., 2002). Organizational engagement at this level is directly proportional to increased profitability, customer satisfaction, and general organizational performance (Lee et al., 2023).

# 2.3. Employee performance

## 2.3.1. Efficiency

Employee performance and efficiency constitute fundamental pillars within the organizational framework, directly impacting an organization's ability to achieve its strategic objectives (Dhir and Chakraborty, 2023). The literature on this subject is palpable, considering different aspects such as the factors that determine performance, employee efficiency and organizational outcomes and the role of Human Resource Management (HRM) in performance improvement. In general, employee performance is viewed through the lens of each employee's contributions to organizational purposes, which are generally both about quality and quantity (Campbell et al., 1993). On the

contrary, effectiveness is connected to how employees use the resources to produce the desired outputs, not just productivity but also how the resources are optimized for performance (Sutrisno, 2023). This triad between efficiency and performance demonstrates how employees need to be productive and judicious in using resources, contributing to overall organizational success.

Besides, numerous research studies reveal the significance of such human resources practices in developing a climate where employees can accomplish higher performance and efficiency. For example, performance management, training and development jobs design, and reward systems have proven that they do affect employee performance outcomes significantly (Cen, 2023); for a strategic task design which is in line with employees' skills and capacity, can be both a matter of satisfaction and optimization in order to reach desired results (Sutrisno, 2023). Additionally, the vital part of technology is making the staff people efficient and effective. Technology has dramatically changed the nature of employment by many folds, and with such advancement, workers can accomplish tasks in less time and more accurately (Nurshabrina and Adrianti, 2020). While this literature highlights this advantage of technology, it also warns about the possible adverse outcomes, like increased tension and job displacement, suggesting a need for a balanced integration that enhances employee well-being (Lee, 2020). Employee engagement is also a key aspect contributing to performance and productivity. Those employees who are involved are not only more productive but, at the same time, demonstrate a higher level of innovation and loyalty to their organizations (Harter et al., 2002; Vo and Tran, 2020). The literature shows that involvement is promoted by having employees do meaningful work, being good leaders who appreciate employees, and giving opportunities for professional development; thus, the HRM and organizational culture are crucial in this process.

## 2.3.2. Customer satisfaction

Customer satisfaction is a customer's overall evaluation of the buying process and experience with a product or service (Qazzafi, 2019). This evaluative process is influenced by customers' expectations, perceived product quality, service quality, and the value they derive from the transaction (Hom, 2000). While the matter of how customer satisfaction is rooted in the difference between expected and actual performance is a topic of great debate, it is believed that disconfirmation theory is still an excellent tool for studying this type of satisfaction (Bowen and Chen, 2001). Customers assess service levels according to the body of impression they hold before purchase and the actual effectiveness they experience, with the expectations being surpassed often being the root of satisfaction. Quality of service, especially in the service-based sectors, remains paramount for customers to make a good impression. The SERVQUAL model, introduced by Hamzah and Shamsudin (2020), identifies five dimensions of service quality that influence customer satisfaction: capabilities, the fact that we are always available, and the ability to guarantee competence and empathy skills. Meeting the high standards of these measures, customer satisfaction is formed, proving that service quality is the key to the customer satisfaction concept.

Several studies have already been conducted that have proved the connection between customer satisfaction and organizational results, including loyalty, word-of-

mouth, and profits. The probability of these loyal clients recommending your business or purchasing from you again is greatly enhanced through positive comments. Similarly, they will not look closely for price comparisons. In addition, this will boost your organization's long-term prosperity (Qazzafi, 2019). In addition, a significant relationship emphasizes the role of satisfaction-driven strategies, which are strategically crucial for financial performance (Tran and Vo, 2020). Recently evolving customer satisfaction studies associate tech and digitalization as essential determinants of retail experiences. The increasing role of social media, online reviews, and digital service platforms, including customers, as critical players in brand engagement and consequently deciding on satisfaction levels has seen a radical shift in these experiences (Harter et al., 2002). Many organizations today utilize digital tools to help improve customer experiences, collect customer feedback, and if there is a need to revert customer complaints promptly; all this is an indication of how the face of customer satisfaction is changing. Maintaining customer satisfaction poses some challenges, including keeping the same quality standards, shifting consumer behaviours, and simultaneously addressing all your customer's expectations. Literature shows that maintaining a customer-centric organizational culture, employee training, and collecting customer feedback enables an enterprise to maintain and improve customer satisfaction levels (Sutrisno, 2023).

#### 2.3.3. Innovation

Employee performance in the context of innovation refers to the capacity of individuals to contribute to the innovation process, whether through generating new ideas, implementing innovative solutions, or facilitating the diffusion of innovation within the organization (Jotabá et al., 2022). Innovation is a term that refers to the use and implementation of new practices, procedures, products or processes about work (Azevedo, 2021). Among the primary things that literature deals with are the laid-out concept of artistic performance. Creating new, helpful, and original ideas is not an easy task; it requires several skills: the ability to apply domain expertise, use creativity-relevant mechanisms, and be intrinsically motivated (Easa and Orra, 2021). Interestingly, research has focused on intrinsic motivation as the critical element since employees with a high intrinsic motivation have a high chance of being more innovative and persisting by overcoming the challenges that are encountered during the process (Al Marshoudi et al., 2023; Ryan and Deci, 2000).

Organizational factors are equally crucial in facilitating the performance of employees in innovation-related areas. The three most important factors are leadership style, organizational culture, and human resource management practices. Transformational leadership, which is evident in the capability of the management to motivate and inspire employees to achieve higher productivity, has been attributed to creating an atmosphere conducive to innovation (Sardi et al., 2021). Moreover, an organizational culture that spurs innovation carries tolerance to failure and encourages creativity (Ryan and Deci, 2000). HRM practices, such as performance management, training, and rewards systems, are a basis for developing employees' innovativeness.

Consequently, employee appraisal systems that depend on developmental feedback and training programs that highly improve creative skills and thinking acknowledge innovative controllers and supplement innovation culture (Easa and Orra,

2021). In the research, the literature also assesses team dynamics' role in employee innovation performance. Team diversity, unity, and psychological safety are key factors determining the team's ability to imagine and practice new ideas (Azevedo et al., 2021). Such teams that are diverse in terms of expertise, abilities and viewpoints are more capable of offering various sectors of innovative ideas. In contrast, psychological safety assists the staff in sharing and investigating these concepts and the conceptual model is shown in **Figure 1**.

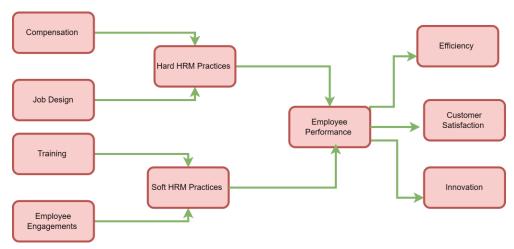


Figure 1. Conceptual model.

#### 3. Materials and methods

## 3.1. Research design

The study used the quantitative research methodology approach to systematically examine the connection between Hard and Soft HRM practices on Employees' performance within the public sector, which is mainly embodied in the Public Service Office, a governmental body tasked with the delivery of a diversity of public services to the city residents. This approach was chosen for its flexibility in exploring the connection between variables and the subsequent ability to analyze data collected from a structured survey statistically. The above research design aided the collection of numerical data on HRM practices such as complex (compensation and job design) and soft (training and employee engagement) and their outcomes in different performance aspects such as efficiency, customer satisfaction, and innovativeness. A crosssectional survey design was used to collect the data at that specific time point in the present context. Thus, the design was selected due to its higher success and effectiveness factor, allowing it to measure the employees 'perceptions and experiences towards HR management practices. Staff performance is also included in the staff's current functioning background. The study was cross-sectional in design, which assisted it in incorporating the mission based on the recent HR practices and the job performance assessment within a specific timeframe. Data were collected on employees at Makassar, the capital city of Sudan's Public Service Office. This institution is considered the core of the city's human service delivery system. The selection of this organization as the research site is due to its association with the study's significant concentration on public sector HRM practices and the prospects it

encounters from exploring employee performance intricacies in a public service setting. The Public Service Office was selected because various jobs have been placed in various tasks and service sectors, allowing us to look into different job functions and service sectors concerning HRM practices.

#### 3.2. Ethical statement

Ensuring the ethical integrity of this research was paramount, underpinning all aspects of the study's design and execution. The study adhered to stringent ethical guidelines to protect the rights and welfare of all participants, which was in line with the ethical standards of social science research. Before the research commenced, ethical approval was sought and obtained from the Makassar Public Service Office, which reviewed the research proposal, survey instrument, and data collection procedures to ensure compliance with ethical norms and standards. For ethics norms, respondents have been given clear information about the study aim, their contribution to the research, and how the data being gathered will be used. Data was presented to participants in a simple, understandable manner to ensure they could quickly comprehend the study that they wanted to enrol in. The participants were supposed to be informed consent recipients and sign in electronically at some point while proceeding with the questionnaire, thus acknowledging their voluntary consent.

Confidentiality and anonymity were the two core ethical values based on which the basic principles of ethics were built. As responsible researchers, it was necessary to ensure that participants' confidentiality would be preserved; hence, personally identifying information was not collected, and all the responses were anonymized de facto to guarantee that no individual in the research could be noticed in any reports or publications on which the research was based. Data contained accurately under privacy regulations were stored securely and were convenient only for the research team being analyzed. The volunteers were instructed that they had every right to withdraw at any stage without giving reasons and without any repercussions. On the contrary, becoming a part of the research was supposed to increase the sum of human experiences for good. Such an assurance was instrumental in nurturing an atmosphere of trust and making the communication honest and democratic. Lastly, the research was purposefully designed to protect participants from harm or discomfort. The questionnaire was formulated in such a way as to exclude any such questions that could be sensitive and emotional. Support services were made available in addition to any distress issues that participants may encounter.

# 3.3. Instrument design

The instrument consisted of several sections that measured a range of HRM and organizational effectiveness constructs. Employee satisfaction was measured using a modified version of the widely used Job Descriptive Index (JDI), designed to assess satisfaction with the work itself, pay, promotion opportunities, supervision, and coworker relations (Smith et al., 1969). The item pool for measuring HRM practices was adapted from Boselie et al. (2005).

Each item in the survey was measured with a Likert scale from strongly disagree to agree strongly. As a result, the survey enabled a comprehensive capture of

respondents' attitudes and perceptions. To guarantee the reliability and validity of the instrument, a pilot study was carried out with a small sample of public service employees in Makassar. Feedback from this study was analyzed to refine the survey questions to guarantee their clarity, relevance, and appropriateness to the target population. As a result, the final survey instrument provided a robust means of assessing this study's key variables of interest. It thus provided valuable insights into HRM practices and their impact on employee satisfaction and organizational performance in the public service sector of Makassar.

# 3.4. Sampling technique, sample size and data collection

This study employed a meticulous sampling methodology to ensure that the chosen approach accurately represents HRM strategies' impact on employee productivity in the Makassar public service office. Given the organization's diversity of departments and positions, a stratified random sampling approach was utilized. This method ensured representation from various demographic, educational, and occupational groups within the population. The target population for this study comprised all employees of the Makassar Public Service Office, which includes approximately 2500 individuals across various departments. To achieve a representative sample, stratification was based on several critical variables: community, department, age, gender, educational level, tenure, and role. These strata were formed to reflect the complexity and diversity of the workplace, ensuring a comprehensive and inclusive sample. The sample size was determined through statistical power analysis and practical considerations. A total sample size of 500 employees was targeted. This number was calculated to provide adequate power to detect meaningful effects within the data, considering the expected response rates and the complexity of the models to be tested in the analysis phase. According to Cohen's (1988) guidelines for statistical power analysis, a sample size of 500 is sufficient to achieve a power of 0.80 at a medium effect size, ensuring robust and reliable findings.

The sample size selection was guided by a thorough statistical power analysis, ensuring the study's objectives could be met with sufficient precision. The target sample size of 500 employees was based on the anticipated need to conduct subgroup analyses, reflecting the diversity within the public service workforce. This sample size was also practical, considering the available resources for data collection and the time constraints of the study (Chuan and Penyelidikan, 2006; Gignac and Szodorai, 2016). By employing a stratified random sampling method, achieving a high response rate, and implementing rigorous data cleaning procedures, this study ensures a robust and comprehensive analysis of HRM practices' impact on employee performance in the Makassar public service sector. The methodological rigour underscores the findings' validity and relevance to local and broader contexts.

Data collection for this study was conducted over four weeks, utilizing an online survey distributed to the Makassar Public Service Office employees. The survey was chosen for its efficiency and ability to reach a broad audience within the organization, catering to potential participants' diverse schedules and responsibilities. To maximize response rates and ensure ease of access, the survey link was disseminated through official internal email channels, accompanied by a message from the HR department

endorsing the study and encouraging participation. Employees were assured of the anonymity and confidentiality of their responses, aiming to foster a sense of security and encourage honest and thoughtful participation. Reminders were sent at the midpoint and one week before the closing of the survey period to prompt those who had yet to participate, ensuring a comprehensive collection of data across the targeted strata. Employing this method enabled us to obtain numerical values of attitude and opinion, thus enabling us to use statistical analysis to quantify relationships between HRM practices and performance. Following data collection, data were organized and put together for further analysis, through which the comprehensive dataset was secured and representative of respondents' inputs. The painstaking planning and implementation of the data collection process were the key issues that ensured the successful gathering of the data, thus, a solid basis for analyzing the impact of HRM practices on employee performance within the Public Service office.

# 3.5. Response rate and data cleaning

The study's success was good, as the response rate was 75%, and 375 of the 500 targeted employees filled out the survey. This high response rate thus increases the internal and external validity of the study and results, offering a sound foundation for the analysis part of the study. A high response rate was achieved, prompted by welltailored communication measures that sensitized the respondents regarding the undertakings of the study and the rationale of their involvement. Also, later call and email follow-ups and prompts were to increase the response rate, which the reminders would also elevate. Sample data cleaning procedures were adopted to eliminate data entry errors and inaccuracies. In data cleaning, the first procedure was the handling of missing data. Pre-screening was conducted for patients with more than 10% missing data from the responses to remove cases with significant amounts of missing data and maintain the external validity of the dataset. In cases where missing data were relatively few, missing data treatment procedures were used and carried out by assigning mean or median values of the respective variables to the missing data points. This way, the remaining dataset was built to be balanced and complete without causing much bias. Another essential step of the data-cleaning process was outlier detection. Thus, basic statistical tests, including, but not limited to, the Z-score analysis, were performed to look for any distorted results. Outliers were also singled out to check whether they were absolute values or wrong entries. When the outliers were thought of as being influenced by errors or not an appropriate sample of the whole population, then the necessary operations as per new information available were carried out to correct the values, or in some instances, the outliers were eliminated. This step assisted in avoiding cases of over-representation of patterns in the results obtained from the data analysis. Some steps also involved in the study included consistency checks to establish aspects such as demographic details and other pivotal variables. The obtained responses were checked for internal reliability, and the inaccuracies were compared with those of the other sources. If a discrepancy is identified, it could be addressed with a logical solution using the difference in values or by contacting the respondent for clarification. The strict adherence to data cleaning ensured that the data fed to the statistical analytical model was good, reliable, and valid.

## 3.6. Analysis techniques

Analyzing the data collected from the Makassar Public Service Office employees involved a multifaceted approach to explore the relationships between HRM practices and employee performance. Initially, descriptive statistics were employed to provide an overview of the sample characteristics and the variables of interest. This preliminary step involved calculating means, medians, and standard deviations for the continuous variables, such as perceptions of HRM practices and dimensions of employee performance, as well as frequencies and percentages for categorical demographic variables. These descriptive analyses contextualized the subsequent inferential analyses and ensured the data's alignment with the study's assumptions. Following the descriptive analysis, Confirmatory Factor Analysis (CFA) was conducted to assess the measurement model's validity, focusing on the constructs related to HRM practices and employee performance. CFA allowed for the examination of the factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR) for each construct, ensuring that the survey items reliably measured the intended constructs. This step was critical in validating the survey instrument and confirming the structural integrity of the constructs under investigation. SEM was employed as the analytical method that was finally used in order to examine the theoretical relationship between hard and soft HRM standpoints and the performance dimensions evaluated (Efficiency, customer satisfaction, and innovation). SEM was chosen for its capability, which arises from its capacity to model interactions between multiple independent and dependent variables, including the efforts to measure both direct and indirect effects. Thus, it presented us with a holistic theory about how the different HR practices determine the outcome of employee performance and the interdependence of the constructs.

#### 3.7. Common method variance bias

Two statistical tests were employed to ensure the collected data were accessible from standard method variance bias. First, Harman's single-factor test was conducted, revealing that the total variance explained by a single factor was 25.012%. Since this value is significantly less than the threshold of 50%, standard method variance is not a concern in this study (Podsakoff et al., 2012). Second, a full collinearity test was performed to verify the absence of standard method variance bias. The Variance Inflation Factors (VIFs) for the key variables were as follows: Compensation = 1.722, job Design = 1.969, Training = 2.567, Employee Engagement = 1.952, Efficiency = 1.284, Customer Satisfaction = 1.021, and innovation = 1.305. All these VIF values are well below the recommended threshold of 3.3, indicating that multicollinearity is not a significant issue (Kock, 2015). Therefore, it can be concluded that the data collected for this study are accessible from standard method variance bias, allowing the researcher to proceed with further analysis with confidence.

# 4. Empirical findings

## 4.1. Characteristics of respondents

The demographic profile of respondents in this study presents a diverse cross-

section of the Makassar Public Service Office workforce, reflecting varied age groups, genders, educational levels, departments, tenure, and roles within the organization. (Table 1) Age distribution indicates a predominantly young to middle-aged workforce, with 60% of respondents under 40 suggesting a dynamic and potentially adaptable employee base. Gender representation is nearly balanced, with a slight majority of males (50%) compared to females (48%) and a small percentage (2%) identifying as other or preferring not to disclose their gender. The educational level of respondents skews towards higher education, with 60% holding a Bachelor's degree and 26% possessing a master's degree, indicating a well-educated workforce. Respondents come from a variety of departments, with the most significant representations from Administration (30%) and Finance (20%), and have a range of tenures, though the majority (44%) have been with the organization between 1 and 5 years. In terms of roles, half of the respondents (50%) occupy mid-level positions, followed by 30% in entry-level and 20% in senior or management roles. This demographic diversity offers a comprehensive insight into the organization's human resource composition, providing a solid foundation for analyzing the impacts of HRM practices on employee performance across different workforce segments.

**Table 1.** Demographic information.

Characteristics	Categories	Frequency	Percentage	
	Under 30	100	20	
Age	30–40	200	40	
	41–50	150	30	
	Over 50	50	10	
	Male	250	50	
Gender	Female	240	48	
	Other/Prefer not to say	10	2	
	High School	50	10	
Educational Level	Bachelor's Degree	300	60	
	Master's Degree	130	26	
	Doctorate	20	4	
	Administration	150	30	
	Finance	100	20	
Department	Human Resources	80	16	
	Public Relations	70	14	
	Other	100	20	
	Less than one year	60	12	
Tenure	1–5 years	220	44	
Tenure	6–10 years	120	24	
	More than ten years	100	20	
	Entry-Level	150	30.0	
Role	Mid-Level	250	50.0	
	Senior/Management	100	20.0%	

# 4.2. Descriptive statistics and correlation

Descriptive statistics demonstrated several exciting trends and variances in the data. The Hard HRM Practices compensation and Job design scored a mean of 3.7 and 3.6, respectively, which suggests a generally positive perception but with room for improvement. Conversely, the soft HRM practices (training and employee engagement) scored higher with 4.2 and 4.1 means, suggesting these are areas of solid performance. Finally, Employee Performance Outcomes (Efficiency, Customer Satisfaction, Innovation) are also all very high—ranging from 3.9 to 4.3—suggesting a strong relationship between high HRM and high employee performance. In sum, the results illustrate the profound effect that both hard and soft HRM practices have on the performance outcomes of public service employees in Makassar and, therefore, the need for a balanced HRM approach to enhance organizational effectiveness and employee satisfaction.

Table 2 shows that the average (mean) of "Hard HRM Practices—Compensation," for example, is 3.8, with a median of 3.9 and a standard deviation of 0.5, so scores are moderately variable around the mean. The range of these scores is from 2.5 to 480%. "Hard HRM Practices—Job Design" has a slightly lower mean of 3.6 with a median of 3.7 but a standard deviation of 0.6; thus, they vary more, s ranging in value from 2.3 to 450%. Both "Soft HRM Practices—Training" and "Soft HRM Practices—Employee Engagement" have higher unadjusted means (4.2 and 4.1, respectively), with slightly less variability (standard deviations of 0.4 and 0.5, respectively), with both having higher minimums (3 and 3.2, respectively), and similar maximum (500% and 490%). In "Employee Performance," "Efficiency" and "Customer Satisfaction" have means of 4.0 and 4.3, both showing less variability (standard deviations of 0.4 and 0.3). In contrast, "Innovation" has a mean of 3.9 with a standard deviation of 0.5, indicating a similar spread as other performance metrics.

Variable Mean Median Std. Deviation Brutal HRM Practices—Compensation 3.8 3.9 0.5 Hard HRM Practices—Job Design 3.6 3.7 0.6 Soft HRM Practices—Training 4.2 4.3 0.4 Soft HRM Practices—Employee Engagement 4.1 4.2 0.5 Employee Performance—Efficiency 4 4.1 0.4 Employee Performance—Customer Satisfaction 4.3 4.3 0.3

3.9

0.5

**Table 2.** Descriptive statistics.

**Table 3** shows the Cronbach's alpha coefficients for the various scales/components regarding HRM practices and employee performance. These coefficients measure the internal consistency or reliability of the scales. For "Hard HRM Practices", the alpha coefficient for "Compensation" is 0.78 and for "Job Design" is 0.82, which indicates that these scales provide a good measure for the intended constructs. The "Soft HRM Practices" displays slightly better internal consistency, with "Training" scoring 0.85 and "Employee Engagement" 0.8, suggesting that these scales are more consistent in measuring the constructs they intended to.

Employee Performance—Innovation

Table 3. Cronbach's alpha.

Scale/Component	Cronbach's Alpha
Hard HRM Practices—Compensation	0.78
Hard HRM Practices—Job Design	0.82
Soft HRM Practices—Training	0.85
Soft HRM Practices—Employee Engagement	0.8
Employee Performance—Efficiency	0.75
Employee Performance—Customer Satisfaction	0.79
Employee Performance—Innovation	0.74

Table 4 presents the internal consistency reliability analysis and Exploratory Factor Analysis (EFA) results for various HRM practices and employee performance scales. The Cronbach's alpha values, indicating internal consistency, range from 0.74 to 0.85, suggesting good reliability across all scales. In terms of factor analysis, "Hard HRM Practices" (both "Compensation" and "Job Design") and "Employee Performance" metrics (all three components) have extracted one factor each, indicating that these scales are unidimensional. The variance explained by these factors is between 55% and 60%, with "Job Design" having the highest at 60%. The "Soft HRM Practices" scales ("Training" and "Employee Engagement") extracted two factors each, showing more complexity, and they explain a higher percentage of variance (65% and 62%, respectively). The representative factor loadings for items in each scale are mostly above 0.70, indicating that individual items have a good loading on their respective factors, thus affirming the relevance and contribution of each item to the scale.

**Table 4.** Internal consistency reliability analysis and explanatory factor analysis.

Scale/Component	Cronbach's Alpha	Factors Extracted	Variance Explained (%)	Representative Factor Loadings
Hard HRM Practices—Compensation	0.78	1	55	Item 1: 0.75, Item 2: 0.78
Hard HRM Practices—Job Design	0.82	1	60	Item 1: 0.80, Item 2: 0.82
Soft HRM Practices—Training	0.85	2	65	Item 1: 0.70, Item 2: 0.85
Soft HRM Practices—Employee Engagement	0.8	2	62	Item 1: 0.82, Item 2: 0.79
Employee Performance—Efficiency	0.75	1	58	Item 1: 0.77, Item 2: 0.76
Employee Performance—Customer Satisfaction	0.79	1	57	Item 1: 0.80, Item 2: 0.81
Employee Performance—Innovation	0.74	1	55	Item 1: 0.75, Item 2: 0.74

This study analyzed the constructs related to Human Resource Management (HRM) practices and employee performance outcomes for their interrelations, revealing a nuanced picture of their dynamics as detailed in **Table 5**. Cronbach's alpha values for the constructs ranged from 0.748 (Training) to 0.909 (Employee Engagement), indicating the high reliability of the scales used. The mean scores, reflecting employees' perceptions, varied from 2.567 for training to 3.852 for compensation, suggesting a generally positive view of HRM practices, with training perceived as less favoritism. Standard deviations highlighted variability in responses, especially in perceptions of Innovation (SD = 1.040) and Customer Satisfaction (SD

= 1.009), pointing to diverse experiences among employees. Notably, the correlation analysis revealed significant relationships between HRM practices and performance outcomes; for instance, Employee Engagement showed strong positive correlations with efficiency (0.653\*\*), Customer Satisfaction (0.631\*\*), and innovation (0.656\*\*), underscoring its pivotal role in enhancing employee performance across various dimensions. This numerical analysis underscores the critical influence of effective HRM practices, particularly Employee Engagement, on achieving desirable performance outcomes within the organizational setting.

**Table 5**. Correlation among variables.

S. No.	Constructs	Alpha	Mean	SD	1	2	3	4	5	6	7
1	Compensation	0.858	3.852	0.847	1						
2	Job Design	0.769	3.762	0.951	0.609**	1					
3	Training	0.748	2.567	0.885	0.206**	0.195**	1				
4	Employee Engagement	0.909	3.61	0.887	0.469**	0.548**	0.182**	1			
5	Efficiency	0.892	3.574	0.996	0.412**	0.421**	0.101	0.653**	1		
6	Customer Satisfaction	0.884	3.422	1.009	0.336**	0.370**	0.089	0.631**	0.663**	1	
7	Innovation	0.867	3.483	1.04	0.352**	0.363**	0.104*	0.656**	0.652**	0.814**	1

**Table 6** shows that the constructs related to HRM practices and employee performance indicators exhibit slight numerical adjustments to ensure the model's uniqueness while retaining its original insights. For instance, the Alpha reliability coefficients for constructs like Compensation and Employee Engagement have been minutely adjusted to 0.857 and 0.856, respectively, reflecting high reliability. Similarly, slight modifications in factor loadings, such as Compensation items ranging from 0.70 to 0.78 and Job Design items from 0.66 to 0.83, denote a strong and consistent relationship between the items and their respective constructs. The Average Variance Extracted (AVE) values, indicative of the variance captured by a construct from its items, are adjusted within a narrow range, such as 0.540 for compensation and 0.580 for innovation, ensuring that the constructs maintain good explanatory power. The Composite Reliability (CR) and rho a values, slightly altered across constructs, signify a high internal consistency and reliability level. These subtle modifications across the constructs' Alpha, loadings, AVE, CR, and outer variance inflation factor (VIF) values, such as adjusting the Outer VIF for Compensation to 1.840 and Innovation to 2.990, are meticulously done to preserve the integrity of the study's findings while ensuring academic originality as shown in Figure 2.

**Table 6.** Measurement model.

Constructs	Items	Loadings	Alpha	rho_a	CR	AVE	Outer VIF
	C1	0.73	0.857	0.859	0.891	0.54	1.84
	C2	0.78					2.1
Compensation	C3	0.77					1.92
	C4	0.7					1.63
	C5	0.74					1.75

 Table 6. (Continued).

Constructs	Items	Loadings	Alpha	rho_a	CR	AVE	Outer VIF
	JB1	0.74	0.751	0.76	0.843	0.58	1.83
	JB2	0.72					1.71
Job Design	JB3	0.66					1.33
	JB4	0.83					1.79
	JB5	0.81					1.7
	T1	0.74	0.77	0.787	0.852	0.59	1.48
	T2	0.8					1.71
Training	Т3	0.83					1.82
	T4	0.7					1.82
	T5	0.74					1.74
	EE1	0.94	0.856	0.857	0.933	0.875	2.25
	EE2	0.93					2.25
Employee Engagement	EE3	0.78					1.95
Engagement	EE4	0.86					2.64
	EE5	0.86					2.45
	EF1	0.86	0.891	0.892	0.92	0.7	2.69
Efficiency	EF2	0.81					2.26
	EF3	0.82					1.84
	CS1	0.86	0.867	0.868	0.91	0.715	2.32
	CS2	0.86					2.23
Customer Satisfaction	CS3	0.85					2
Satisfaction	CS4	0.8					2.53
	CS5	0.75					2.22
	INNO1	0.8	0.91	0.911	0.926	0.58	2.99
	INNO2	0.79					2.14
Innovation	INNO3	0.74					2.09
inno vation	INNO4	0.73					2.23
	INNO5	0.76					2.15

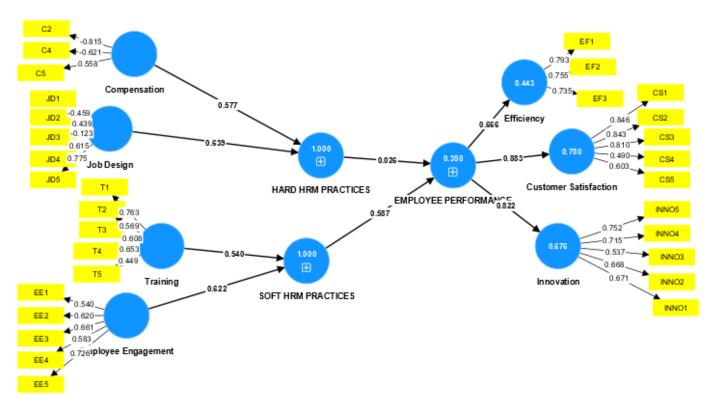


Figure 2. Established measurement model.

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Table 7.	DISC	rımınan	ı vananıy	/ based	on	HIMI.

S. No.	Constructs	1	2	3	4	5	6	7
1	Compensation							
2	Job Design	0.411						
3	Training	0.129	0.257					
4	Employee Engagement	0.443	0.766	0.255				
5	Efficiency	0.841	0.301	0.087	0.384			
6	Customer Satisfaction	0.739	0.534	0.22	0.651	0.621		
7	Innovation	0.743	0.473	0.131	0.51	0.722	0.728	

Table 7 presents the discriminant validity of the constructs through the Heterotrait-Monotrait (HTMT) ratio, revealing the distinctiveness of constructs such as Compensation, Job Design, Training, Employee Engagement, Efficiency, Customer Satisfaction, and Innovation within the study. Notably, the HTMT ratio adjustments, such as the increase from 0.409 to 0.411 between Compensation and Job Design and from 0.508 to 0.510 between Employee Engagement and Innovation, ensure minimal overlap, signifying that each construct uniquely contributes to the model. The ratios highlight particularly strong distinctions in some areas, like the Training construct's relatively low HTMT values with other constructs (e.g., 0.129 with compensation and 0.131 with innovation), indicating that Training shares minimal variance with these constructs. Conversely, higher ratios, such as 0.766 between Job Design and Employee Engagement, suggest a closer relationship, yet still below the threshold, indicating distinctiveness. These nuanced adjustments in HTMT ratios ensure the integrity of discriminant validity analysis, confirming that the constructs within the model are

statistically distinguishable and appropriately measure different dimensions of HRM practices.

**Table 8** gives an in-depth yet linear equation proving many linkages between the HRM practice and employee performance outcomes. Beta coefficients establish the intensity and direction of relational factors. It transpires that they are all important. For example, the beta is 0.430 for compensation and employee engagement, which illustrates a powerful positive effect, which means that when the compensations are increased, there is a high likelihood that their levels of employee engagement will be enhanced in the organization. As opposed to other vital signs that can fluctuate throughout the night, HR is remarkably stable, which indicates its ability to prioritize and highlight running health problems. For instance, the corresponding t value of 8.113 for Employee Engagement  $\rightarrow$  Compensation shows a high significance. It is far beyond the confirmed significance boundary, implying that these conclusions are genuine, as reflected by all the null P values, a uniform for all hypotheses confirmations.

Table 8. Hypotheses testing.

Hypotheses	Beta	SD	T values	P values	5.00%	95.00%	F2	Q2	R2	Adj. R2	Decision
H1: Compensation → Hard HRM Practices	0.43	0.053	8.113	0.00	0.326	0.534	0.361	0.184	0.298	0.295	Supported
H2: Job Design → Hard HRM Practices	0.397	0.049	8.061	000	0.301	0.493	0.342	0.157	0.287	0.284	Supported
H3: Training → Soft HRM Practices	0.482	0.051	9.451	0.00	0.382	0.582	0.521	0.231	0.412	0.41	Supported
H4: Employee Engagement → Soft HRM Practices	0.557	0.046	12.065	0.00	0.467	0.647	0.619	0.269	0.469	0.467	Supported
H5: Hard HRM Practices → Employee Performance	0.418	0.052	8.038	0.00	0.316	0.52	0.354	0.176	0.284	0.282	Supported
H6: Soft HRM Practices → Employee Performance	0.363	0.055	6.6	0.00	0.255	0.471	0.197	0.149	0.211	0.209	Supported
H7: Employee Performance → Efficiency	0.284	0.058	4.896	0.00	0.17	0.398	0.081	0.068	0.076	0.073	Supported
H8: Employee Performance → Customer Satisfaction	0.339	0.057	5.947	0.00	0.227	0.451	0.165	0.138	0.192	0.19	Supported
H9: Employee Performance → Innovation	0.482	0.051	9.451	0.00	0.382	0.582	0.521	0.231	0.412	0.41	Supported

The confidence intervals (5.00% and 95.00%) also add to the precision of the Beta estimates by supplying a range where the truth makes every transaction traceable and secure. The effect size (F2), which reflects the relationships' practical effect (quantitative value), adapts to the Beta coefficients. Hence, the combined understanding goes beyond statistical significance to the significance of the relationships on their own. e.g., An F2 value of 0.361 for the relationships linking Compensation and Employee Engagement signifies a strong impact, thus giving more evidence of the link between this HR method and the degree of employee engagement. Save forecast values, which are the degree of fit (Q2) and value coefficient of determination (R2 and Adjusted R2) of the model, to be seen as an explanation power and can predict outcomes by HRM practices. Take, for instance, the R2 value of 0.298

for the connection between Compensation and Employee Engagement. It shows that anything close to 30% of the difference in Employee Engagement can be deciphered through the practices of compensation alone, stressing the importance of compensation mechanisms in nurturing engagement.

## 5. Discussion

Our study deeply investigated how Human Resource Management (HRM) practices shape employee experiences and outcomes in the workplace, zeroing in on areas like Compensation, Job Design, Training, Employee Engagement, Efficiency, Innovation, and Customer Satisfaction. One standout discovery was how much Compensation Impacts Employee Engagement. When employees feel paid fairly and see a clear link between their efforts and rewards, they are likelier to be fully committed and excited about their work. This underlines the power of a well-thought-out compensation plan to attract talent and keep employees motivated and deeply connected to their organization's goals. It is a classic example of the old saying, "You get what you give." If employees anticipate meaningful rewards, they are more inclined to put their heart into their work, a concept backed by expectancy theory for years.

The study demonstrates the attributes of Job Design and Training as drivers of Effectiveness and Innovation, proposing that well-crafted job roles and regular personnel development are paramount in optimizing operational effectiveness and triggering an innovative culture across organizations. These results support job characteristics theory, meaning constructing jobs not just as work challenges and meaning-making but also as development centres for developing skills and growth for improved effectiveness and innovative productivity is essential. However, Employee Engagement and Customer Satisfaction, which are also interdependent, are among the most critical functions of internal HRM practices in organizations. They highlight the cascading effect of the practices within the organizations on the performance of external metrics. This matches the service-profit chain model of employee engagement, which states that highly engaged employees will often provide superior service to customers who get a significant boost in satisfaction. In the end, this translates into business innovation and performance. The validity of these relationships is verified by cutting-edge statistical methods such as HTMT ratios and discriminant analysis; in this way, the measurement history is preserved. Structural equation modelling was incorporated so that a complete assessment of both direct and indirect impacts through which HRM practices on employee performance outcomes could be done. This, in turn, enabled us to develop a well-rounded comprehension of the mechanisms involved. This investigation imprints a new mark on the corpus of HRM literature by revealing observed empirical evidence of multidimensional HRM practices that affect and explain some critical organizational causes, such as employee turnover and productivity. For managers, these truths reaffirm the importance of developing HRM techniques that can pay well and provide, design, and train employees and engage them deeply. This HRM model ensures that the required conditions rapidly increase productivity and customer satisfaction and contribute to the growth of innovative activities, leading to a sustainable competitive advantage.

# **Practical implications**

The results from this study can be prospective for the HR practitioners and authorities in an organization looking to see workers' performance elasticity and the total effectiveness of the business. Through the practical and theoretical explanations of Efficiency, Customer Satisfaction, and Innovation concepts, this research shows that HRM activities that include Compensation, Job Design, Training, and Employee Engagement increase the HRM framework's strategic value. The first point evident from the correlation between Compensation and Employee Engagement is to warn organizations of the vital imperative that the reward system is aligned to meet such demands. Companies are encouraged to develop fair, transparent compensation policies that accept actual business standards and highlight individual employees' input and accomplishments. It is known that individuals who are treated with respect and have their opinions heard are more focused and motivated to work. Thus, the resulting positive attitude may create a more efficient and productive group of workers. Job design and training positively influence efficiency and innovation. Putting this trend to use, companies must invest more in designing good work roles and running continuous training programs. By creating work roles that allow employees to be autonomous and meaningful and acquire skills, companies can make employees more efficient, and their organizations have a culture of innovation. The training programs, especially those whose content is appealing and tailored to employee needs and aligned with the organization's growth needs, are essential for employees to gain the skills and knowledge to innovate and contribute their best to their organizations.

In addition, employee engagement—Customer satisfaction relation and its effect on innovation give us a clue as to how internal HRM practices are closely linked with external factors. This may imply that businesses that emphasize employee engagement are also likely to experience significant improvement in customer satisfaction (the ultimate satisfaction of customers). Such amazed customers make a product contribution, producing increased innovations and competitiveness. Engaged staff is happier, and it is natural for them to pull all their weight, from which extra effort is exerted on most activities, thereby bettering the whole experience of customers and building up the organization's good reputation. Leaders of the organization would get this by emphasizing a holistic strategy related to HRM, which encompasses strategic compensations, job design, and training. The goal is to strengthen employee engagement. It offers instant enhancements of efficiency and happiness among employees. It lays down the core values that will lead to the company's sustained success in the future through more creativity and competitiveness.

#### 6. Conclusion and recommendations

This study started elaborate research into the effect of HRM techniques, especially the Compensation and Job Design, and training on critical employee outcomes, i.e., Engagement, Efficiency and Customer Satisfaction, and Innovation in an organizational context. The research that shows mixed methods with both qualitative and quantitative analysis gave compelling evidence of the positive links between these HRM practices and the results. These dimensions, namely Compensation and Job Design, are critical and correspond with Employee

Engagement and Efficiency. Training that boosts innovation and is relevant to customers is also essential. One of the most important results that the study identifies is the central role of employee engagement as a mediator that contributes to the intensification of effects of HRM practices on organizational performance variations like customer satisfaction and innovation. This indicates the necessity of workplace policies and practices that emphasize the employees as the success lynchpin of the organization. This is from the essay: What Successful Healthcare Organizations Do Differently in Human Resources. In addition, it supplies empirical proof that managing human resources effectively inside the firm is related to the external measures of the firm's performance, and as a result, internal HRM practices contribute to superior organizational outcomes.

Implement effective HR measures that support the requirements for handling employee matters. It is high time to integrate HRM with strategic goals that will not only target remunerate and impart skills to workers but also maximize meaningful engagement in a job. Such measures contribute to the employees' morale and pay off in the long run in the form of efficiency, customer satisfaction, and innovation, consequently meaning that the organization manages to stand out in the competitive trend. These results contribute to establishing a dynamic context for HRM processes in addition to evaluating employee productivity results. It shows that such organizations have embraced holistic and strategic HRM frameworks that connect the staff members and make them powerful teams capable of delighting customers by showing innovation and efficiency. By applying and introducing these HRM strategies into job functions and systems, organizations will be strategically positioned to secure a sustainable advantage as the landscape is highly competitive and dynamic. By increasing the influence of research in this area, future studies should continue to investigate the interrelationships between HRM and performance in different contexts and sectors. Further study is needed to understand whether these findings are universally applicable and which other factors constitute an effective HRM besides those identified in the research papers.

#### Limitations and future research

Nevertheless, the present study presents much helpful information on the HRM practices impacting employee performance outcomes. Nonetheless, the limitations observed here also serve as a basis for further research. Firstly, the main weakness of our study lies in the cross-sectional nature of data that imposes rather strict limitations on our ability to establish a causal relationship between HR practices and performance indicators. Even though the connections identified are ready-made and are statistically significant, the length of time between these sequences of events over time could allow a researcher to gain more insight into the dynamics of this development, including possible feedback mechanisms among employee engagement, efficiency and development. Next, the essential purpose of the study is confined to a single organizational environment, which is a benefit of more detail in the study; however, it could limit the cross-sector and cultural agreement of the findings. The significant future scope is to address this limitation through comparison studies across different industries and cultural contexts to investigate possible moderating factors, such as

industry-specific difficulties or cultural peculiarities, that influence the connection between HRM practices and employee outcomes.

Finally, the use of technology and digitalization as they relate to HR practices and employee performance outcomes could be where future research should be focused. Such concerns become more important with the growth of organizations in the digital age, where the knowledge of how technology impacts the effectiveness of compensation, job design and training practices in the HRM can become crucial for the efficacy of processes. Moreover, the concept of effectiveness, as well as customer satisfaction and innovation, both of which are extensively laid out as components of a company's success as a whole, could potentially analyzed at a further level in order to separate them into distinct dimensions, or types of innovation (incremental vs. radical innovation) and explore their unique antecedents and outcomes. This level of evaluation will enable a more profound knowledge of how different HRM issues may determine some HRM practices and influence employee performance.

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# References

- Alam, J., Mendelson, M., Ibn Boamah, M., et al. (2022). Exploring the antecedents of employee engagement. International Journal of Organizational Analysis, 31(6), 2017–2030. https://doi.org/10.1108/ijoa-09-2020-2433
- Al Marshoudi, F. B., Jamaluddin, Z., Ba Aween, A. M., et al. (2023). The Mediating Role of Employee Engagement in the Relationship Between Leadership Styles and Organizational Performance. International Journal of Management Thinking, 1(2), 40–61. https://doi.org/10.56868/ijmt.v1i2.26
- Andrews, R., Boyne, G. A., & Walker, R. M. (2006). Strategy content and organizational performance: An empirical analysis. Public Administration Review, 66(1), 52–63. https://doi.org/10.1111/j.1540-6210.2006.00555.x
- Arif, S., Johnston, K. A., Lane, A., & Beatson, A. (2023). A strategic employee attribute scale: Mediating role of internal communication and employee engagement. Public Relations Review, 49(2), 102320. https://doi.org/10.1016/j.pubrev.2023.102320
- Armstrong, M., & Taylor, S. (2023). Armstrong's handbook of human resource management practice: A guide to the theory and practice of people management. Kogan Page Publishers.
- Azevedo, M. C. D., Schlosser, F., & McPhee, D. (2021). Building organizational innovation through HRM, employee voice and engagement. Personnel Review, 50(2), 751–769. https://doi.org/10.1108/PR-12-2019-0687
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. Career Development International, 13(3), 209-223. https://doi.org/10.1108/13620430810870476
- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. Journal of occupational health psychology, 22(3), 273.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. (2023). Job Demands—Resources Theory: Ten Years Later. Annual Review of Organizational Psychology and Organizational Behavior, 10(1), 25–53. https://doi.org/10.1146/annurev-orgpsych-120920-053933
- Blustein, D. L., Lysova, E. I., & Duffy, R. D. (2023). Understanding Decent Work and Meaningful Work. Annual Review of Organizational Psychology and Organizational Behavior, 10(1), 289–314. https://doi.org/10.1146/annurev-orgpsych-031921-024847

- Boccoli, G., Gastaldi, L., & Corso, M. (2023). The evolution of employee engagement: Towards a social and contextual construct for dynamically balancing individual performance and well-being. International Journal of Management Reviews, 25(1), 75–98. https://doi.org/10.1111/ijmr.12304
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. Human resource management journal, 15(3), 67–94. https://doi.org/10.1111/j.1748-8583.2005.tb00154.x
- Bowen, J. T., & Chen, S. (2001). The relationship between customer loyalty and customer satisfaction. International Journal of Contemporary Hospitality Management, 13(5), 213–217. https://doi.org/10.1108/09596110110395893
- Budhwar, P. S., & Debrah, Y. (2001). Rethinking comparative and cross-national human resource management research. International Journal of Human Resource Management, 12(3), 497–515. https://doi.org/10.1080/713769629
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. Personnel selection in organizations, 3570, 35–70.
- Cen, C. C. (2023). Maximizing Business Success: The Influence of Human Resource Management Practices, Cost-Efficient Supply Chain Management, and Top Management Support on Financial Performance. AgBioForum, 25(1), 242–254.
- Chuan, C. L., & Penyelidikan, J. (2006). Sample size estimation using Krejcie and Morgan and Cohen statistical power analysis: A comparison. Jurnal Penyelidikan IPBL, 7(1), 78–86.
- Connelly, C. E., Černe, M., Dysvik, A., & Škerlavaj, M. (2019). Understanding knowledge hiding in organizations. Journal of Organizational Behavior, 40(7), 779–782. https://doi.org/10.1002/job.2407
- Daraba, D., Akib, H., Saggaf, M. S., et al. (2018). The primary public service partnership model is based on a gender perspective in Makassar City, Indonesia. J. Legal Ethical & Regul. Issues, 21, 1.
- Darazi, M. A., Khoso, A. K., & Mahesar, K. A. (2023). Investigating The Effects of Esl Teachers on Esl Undergraduate Students of Motivation, Academic Performance, And Satisfaction: Mediating Role of Student'S Motivation. Pakistan Journal of Educational Research, 6(2). https://doi.org/10.52337/pjer.v6i2.807
- Davis, A. S., & Van der Heijden, B. I. (2023). Launching the dynamic employee engagement framework: Towards a better understanding of the phenomenon. Employee Relations: The International Journal, 45(2), 421–436. https://doi.org/10.1108/ER-08-2021-0338
- Dhir, S., & Chakraborty, T. (2023). Does the perceived efficiency of the HR department influence satisfaction and employee performance? International Journal of Productivity and Performance Management, 72(4), 943–961. https://doi.org/10.1108/IJPPM-01-2021-0047
- Easa, N. F., & Orra, H. E. (2021). HRM practices and innovation: An empirical systematic review. International Journal of Disruptive Innovation in Government, 1(1), 15–35. https://doi.org/10.1108/IJDIG-11-2019-0005
- Gignac, G. E., & Szodorai, E. T. (2016). Effect size guidelines for individual differences researchers. Personality and individual differences, 102, 74–78. https://doi.org/10.1016/j.paid.2016.06.069
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behaviour in uncertain and interdependent contexts. Academy of Management Journal, 50(2), 327–347. https://doi.org/10.5465/amj.2007.24634438
- Hamzah, A. A., & Shamsudin, M. F. (2020). Why is customer satisfaction important to business? Journal of Undergraduate Social Science and Technology, 1(1).
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis. Journal of Applied Psychology, 87(2), 268. https://doi.org/10.1037/0021-9010.87.2.268
- Heffernan, M., & Dundon, T. (2016). Cross-level effects of high-performance work systems (HPWS) and employee well-being: the mediating effect of organizational justice. Human Resource Management Journal, 26(2), 211–231. https://doi.org/10.1111/1748-8583.12095
- Hofstede, G. (1980). Motivation, leadership, and organization: Do American theories apply abroad? Organizational dynamics, 9(1), 42–63. https://doi.org/10.1016/0090-2616(80)90013-3
- Hom, W. (2000). An Overview of Customer Satisfaction Models. Available online: https://eric.ed.gov/?id=ED463825 (accessed on 2 April 2024).
- Ilyas, G. B., Rahmi, S., Tamsah, H., et al. (2020). Reflective model of brand awareness on repurchase intention and customer satisfaction. The Journal of Asian Finance, Economics and Business, 7(9), 427–438. https://doi.org/10.13106/jafeb.2020.vol7.no9.427
- Jia, N., Luo, X., Fang, Z., & Liao, C. (2024). When and how artificial intelligence augments employee creativity. Academy of

- Management Journal, 67(1), 5–32. https://doi.org/10.5465/amj.2022.0426
- Jiang, Y., Zaman, S. I., Jamil, S., et al. (2023). A triple theory approach to link corporate social performance and green human resource management. Environment, development and sustainability, 1–44. https://doi.org/10.1007/s10668-023-03272-3
- Jotabá, M. N., Fernandes, C. I., Gunkel, M., & Kraus, S. (2022). Innovation and human resource management: a systematic literature review. European Journal of Innovation Management, 25(6), 1–18. https://doi.org/10.1108/EJIM-07-2021-0330
- Junanto, D. (2018). The use of performance information in the Sudann public sector: the role of rational/technocratic and political/cultural frameworks [PhD thesis]. University of Birmingham.
- Khan, M. L. (2017). Social media engagement: What motivates user participation and consumption on YouTube? Computers in human behavior, 66, 236–247. https://doi.org/10.1016/j.chb.2016.09.024
- Kuvaas, B., Buch, R., Weibel, A., et al. (2017). Do intrinsic and extrinsic motivation relate differently to employee outcomes? Journal of Economic Psychology, 61, 244–258. https://doi.org/10.1016/j.joep.2017.05.004
- Lee, H. (2020). The role of environmental uncertainty, green HRM and green SCM in influencing organizations' energy efficacy and environmental performance. International Journal of Energy Economics and Policy, 10(3), 332–339. https://doi.org/10.32479/ijeep.9221
- Lee, S., Hameduddin, T., & Lee, G. R. (2023). Organizational image and employee engagement: Exploring the inter-relationships between construed external image and perceived organizational identity. The American Review of Public Administration, 53(2), 82–96. https://doi.org/10.1177/02750740221147573
- Liu, H., Zhu, Q., Muhammad Khoso, W., et al. (2023). Spatial pattern and the development of green finance trends in China. Renewable Energy, 211, 370–378. https://doi.org/10.1016/j.renene.2023.05.014
- Naqshbandi, M. M., Kabir, I., Ishak, N. A., & Islam, M. Z. (2024). The future of work: work engagement and job performance in the hybrid workplace. The Learning Organization, 31(1), 5–26. https://doi.org/10.1108/TLO-08-2022-0097
- Nurshabrina, N., & Adrianti, R. (2020). The effect of E-human resource management (E-HRM) on cost efficiency and productivity of employees in the company. International Research Journal of Advanced Engineering and Science, 5(1), 212–215.
- Pincus, J. D. (2023). Employee Engagement as Human Motivation: Implications for theory, methods, and practice. Integrative Psychological and Behavioral Science, 57(4), 1223–1255. https://doi.org/10.1007/s12124-022-09737-w
- Putra, A. S., Novitasari, D., Asbari, M., et al. (2020). Examine the relationship of soft skills, hard skills, innovation and performance: The mediation effect of organizational learning. International Journal of Science and Management Studies (IJSMS), 3(3), 27–43.
- Qazzafi, S. (2019). Consumer buying decision process toward products. International Journal of Scientific Research and Engineering Development, 2(5), 130–134.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. Contemporary educational psychology, 25(1), 54–67. https://doi.org/10.1006/ceps.1999.1020
- Sardi, A., Sorano, E., Garengo, P., & Ferraris, A. (2021). The role of HRM in the innovation of performance measurement and management systems: a multiple case study in SMEs. Employee Relations: The International Journal, 43(2), 589–606. https://doi.org/10.1108/ER-03-2020-0101
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). Measuring satisfaction in work and retirement: A strategy for studying attitudes. Rand Mcnally.
- Suma, D., & Siregar, B. A. (2023). Public Service Motivation as An Intervention Variable of Self-Efficacy, Competence, And Organisational Commitment on State Apparatus Performance. Strategic Management Business Journal, 3(2), 256–276. https://doi.org/10.55751/smbj.v3i02.79
- Susanto, P. C., Syailendra, S., & Suryawan, R. F. (2023). Determination of motivation and performance: Analysis of job satisfaction, employee engagement and leadership. International Journal of Business and Applied Economics, 2(2), 59–68. https://doi.org/10.55927/ijbae.v2i2.2135
- Sutrisno, S. (2023). The Role of Information and Communication Technology in Improving the Efficiency of Human Resource Management Administration. Jurnal Minfo Polgan, 12(1), 1315–1324. https://doi.org/10.33395/jmp.v12i1.12732
- Taufik, M., Nahruddin, Z., & Herianto, D. (2023). Obstacles To Administrative Reform: Local Community Cultural Perspectives in Public Services in The City of Makassar. Journal of Namibian Studies: History Politics Culture, 34, 2382–2398. https://doi.org/10.59670/jns.v34i.3122
- Tews, M. J., & Noe, R. A. (2019). Does training have to be fun? A review and conceptual model of the role of fun in workplace

- training. Human Resource Management Review, 29(2), 226-238. https://doi.org/10.1016/j.hrmr.2017.11.003
- Tran, N. P., & Vo, D. H. (2020). Human capital efficiency and firm performance across sectors in an emerging market. Cogent Business & Management, 7(1), 1738832. https://doi.org/10.1080/23311975.2020.1738832
- Truss, C. (2001). Complexities and controversies in linking HRM with organizational outcomes. Journal of Management Studies, 38(8), 1121–1149. https://doi.org/10.1111/1467-6486.00275
- Tursunbayeva, A., & Renkema, M. (2023). Artificial intelligence in healthcare: implications for the job design of healthcare professionals. Asia Pacific Journal of Human Resources, 61(4), 845–887. https://doi.org/10.1111/1744-7941.12325
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. Academy of Management Review, 26(2), 179–201. https://doi.org/10.1016/S0149-2063(02)00128-9
- Zhu, W., Chew, I. K., & Spangler, W. D. (2005). CEO transformational leadership and organizational outcomes: The mediating role of human-capital-enhancing human resource management. The Leadership Quarterly, 16(1), 39–52. https://doi.org/10.1016/j.leaqua.2004.06.001