




# The Contribution of Reward Systems in the Work Context: A Systematic Review of the Literature and Directions for Future Research

Elisabeth Figueiredo<sup>1</sup> · Clara Margaça<sup>1,3</sup>  · José Carlos Sánchez García<sup>1</sup> · Célia Ribeiro<sup>2</sup>

Received: 25 April 2023 / Accepted: 26 October 2024 / Published online: 11 January 2025  
© The Author(s) 2025

## Abstract

Currently, companies face several challenges and are increasingly concerned about human capital, particularly after the pandemic period. Reward systems emerge as a powerful resource to influence workers' behavior. This study systematically reviews 61 articles on reward systems in an organizational context, and the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) protocol and three databases were used. By limiting the year range, it was possible to confirm that there was an increase in scientific production in the post-pandemic. This research provides a significant contribution to academia and to organizations by offering deeper insights into how reward systems shape the management of intellectual capital, facilitate knowledge sharing within organizations, and foster innovation. The results also offer organizations differentiated strategies, helping them, in the current business environment, to manage their best talents more efficiently, increasing competitiveness.

**Keywords** Reward systems · Motivation · Covid-19 · Knowledge sharing · Performance · Strategic management of human resources · Systematic review

## Introduction

The phenomenon of globalization, along with recent developments in the business market, has posed major challenges to the companies, forcing them to rethink their way of action and demanding profound procedural and organizational transformations (Serhan et al., 2021). Currently, and after the world has faced the crisis of the COVID-19, organizations are in a constant process of adaptation and revision of their management policies to deal with the instability caused by the pandemic, seeking to boost organizational performance and ensure long term sustainability of the company (Abdullah et al., 2021; Nemteanu et al.,

---

Extended author information available on the last page of the article

2022; Ngamkroeckjoti et al., 2022; Saad et al., 2021; Tsai, 2022). Consequently, the role of management in organizations gains an increased dimension and needs to be reviewed in the light of a strategic component, which prioritizes efficient work teams to ensure differentiation, quality, and long-term sustainability (Kamselem et al., 2022; Leitão et al., 2022; Tarigan et al., 2022). In view of this new contextual paradigm, the contribution of human resource management becomes an unavoidable ally in terms of positioning and competitive advantage, with full emphasis given to the human factor, as a differential vector that sustains business performance and success (Adeoye & Obanewo, 2019; Ngwa et al., 2019; Saad et al., 2021; Tarigan et al., 2022).

Given this scenario, the aim of making companies responsible, highly competitive, and focused on results is based on their ability to establish a safe and efficient managing mechanism for the work of staff. In this sense, it is assumed that these organizational structures put into practice an incentive strategy which ensures employee achievement and leads them to align individual performance with the organizational component (Eneh et al., 2022; Manzoor et al., 2021; Siahaan, 2017).

In this respect, the literature shows that one of the most evident tools in this domain is reward management, a practice that influences employee motivation and satisfaction, promotes retention, facilitates knowledge sharing, and contributes to the organization's growth and productivity (Abasili et al., 2017; Alhmoud & Rjoub, 2019; Beqiri & Aziri, 2022; Eneh et al., 2022; Gal & Hadas, 2015; Jayawardena & Jayawardena, 2020; Onu et al., 2022; Salman & Olawale, 2021; Tarigan et al., 2022).

Currently, feeling respected and recognized for work performance is an important evidence of the components of employee well-being at workplace (Blain et al., 2023). In this assumption, issues such as satisfaction, motivation, and recognition gain dimension at the business level, since they can be seen as positive reinforcements for obtaining desirable behaviors (Ghose & Mohanty, 2016; Jayawardena & Jayawardena, 2020; Mabaso et al., 2021; Manzoor et al., 2021; Pham et al., 2024). In this sense, the evaluation and appreciation of employee performance mediated by a reward policy (Ngamkroeckjoti et al., 2022; Santos et al., 2019; Siahaan, 2017) become new stimuli for labor relations, whose purpose is to motivate the worker (Kumari et al., 2021) and to bring about personal satisfaction, increased productivity (Salman & Olawale, 2021), and the convergence of desired interests in the work relationship (Camara et al., 2013; Marques & Cunha, 2000). Accordingly, there is a consensus that establishing a system that values human resources (Boselie, 2010; Lopes, 2017; Saad et al., 2021; Tarigan et al., 2022), through extrinsic and intrinsic rewards, is an important strategic approach in a sustainable and a successful business context (Manzoor et al., 2021; Serhan et al., 2021; Wang & Kim, 2024).

Within this scope, the research question is: What is the impact of reward systems in the work context? To this end, the relationship between rewards, satisfaction and motivation, and their effects on commitment, knowledge sharing, creativity, performance, and employee retention will be analyzed.

Recent literature supports the existence of a significant and positive relationship between the phenomenon of rewards and workers' behavior and performance (Beqiri & Aziri, 2022; Bwowe & Marongwe, 2018; Elmadag & Ellinger, 2018; Eneh et al., 2022; Hassan, 2022; Jayawardena & Jayawardena, 2020; Leitão et al., 2022; Manzoor et al., 2021; Nemteanu et al., 2022; Oravee et al., 2018; Siahaan, 2017; Tsai, 2022; Ji & Cui 2021; Wang & Kim, 2024). Considering the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) guidelines and to answer the initial question, a systematic review of the literature on reward systems was carried out. Considering their coverage and reliability, the authors opted to use Scopus, Web of Science and Business Source Complete databases. A total of 1901 articles were collected. Of these, 393 were reviewed according to the research objectives, resulting in a selection of 61 articles, published between 2015 and 2022, in scientific journals. In this research, it was possible to identify a set of systematic review and meta-analysis studies published on reward systems with a very comprehensive temporal dimension (Cerasoli et al., 2014; Chen et al., 2023; Garbers & Konradt, 2014; Kaushal & Nyoni, 2022; Nascimento et al., 2019). In this sense, the range year was limited to the last 8 years, with the aim of obtaining publications from a phase immediately prior to, during, and after the pandemic. The research objectives were formalized through the analysis of the scientific content of the set of these articles, methodology used, and gathering the assumptions of each researcher.

Our findings indicate that valuing workers' behavior and dedication through financial and non-financial rewards raises attitudes of satisfaction, motivation, and involvement on the part of employees, with clear effects on autonomy, creativity, knowledge sharing, retention, and intensifying the activities. The sharing of experiences and know-how among employees of a company gains particular importance in this context, being considered a critical factor for sustainability and competitive advantage in the current market (Harandi et al., 2024; Kim & Hang, 2024). In this sense, addressing the issue of incentives and rewards requires organizations to adjust their policies and strategies in order to promote teamwork and the dissemination of knowledge on a greater scale, with a focus on organizational objectives (Gal & Hadas, 2015). The key in this process is to find a balance that values not only individual effort but also collaboration. Elements such as the lack of equity and transparency in the allocation of remuneration project a framework of disinterest, frustration, and reduced feeling of belonging to the organizational structure, compromising the quality and level of performance of work teams (Gal & Hadas, 2015; Kaushal & Nyoni, 2022).

Future research should focus on additional theories, methods and diverse samples, as well as different levels of impact, which could be potentially relevant to delve deeper into the topic. For instance, considering that the reward system is bilateral, future studies can address issues regarding the role of reward systems in relation to employee turnover, the introduction of new and empowering incentive programs to assess the company's long-term productivity and sustainability.

## Theoretical Background

### Human Capital and Organizational Performance

Nowadays, human capital management is an integral part of the management process and is assumed as a differential in organizations (Adeoye & Obanewo, 2019; Kamselem et al., 2022). According to Peter Drucker (1994), people are the only sustainable competitive advantage. For Tarigan et al. (2022), a company's employees are a basic unit of performance, making it essential to mobilize and pay them the necessary attention for the company's success.

At the beginning of the twentieth century, with the significant increase in company size and the specification of tasks and services, theories related to the management of organizations developed substantially and the human factor began to gain dimension, since it was attributed to the human capital the development of organizational performance (Sotomayor et al., 2014; Tarigan et al., 2022). In today's organizations, the role of people assumed a central position, being increasingly valued. Therefore, it is important to invest in human resource management practices (Foss et al., 2015; Jayawardena & Jayawardena, 2020; Saad et al., 2021; Tarigan et al., 2022).

In this regard, the literature is consensual in stating that it is the organizations that are most concerned with human resources and their working conditions, achieving not only the satisfaction and motivation of their professionals, but also advantageous results in the businesses (Leitão et al., 2022; Saad et al., 2021). In this sense, the objective is for work teams to be motivated and aligned with the organization's purposes and to support productivity and business performance vectors (Ngwa et al., 2019; Salman & Olawale, 2021; Sotomayor et al., 2014). According to Martono et al. (2018), Siahaan (2017), and Taba (2018), this challenge is assumed through the implementation of reward initiatives, intrinsic and extrinsic, aimed at job satisfaction and better performance of workers. Therefore, performance is a crucial topic when talking about incentives, since when establishing a system of this nature, it is essential to evaluate the results of the work carried out.

### Motivation and Job Satisfaction

Motivation has become one of the main challenges in the human resources sector due to social transformations and the increasing demands of the consumer society (Kumari et al., 2021; Leitão et al., 2022). On the one hand, motivation was assumed to be a variable of little relevance in an organizational context, because workers were seen as mere labor (Tarigan et al., 2022). On the other hand, nowadays, it is presented as a priority issue of growing interest to business managers, since it is associated with the concern of increasing performance (Jesus & Viseu, 2020; Manzoor et al., 2021; Ngwa et al., 2019). From Teixeira's perspective (2013, p. 193), intrinsic motivation is more effective and long lasting and refers to the behavior that the worker adopts and that comes from

the pleasure that the work gives him/her. Extrinsic motivation is “guided by an expected reward or satisfaction of an external nature (e.g., praise, bonus, etc.)” and can be extinguished when the external factor ceases to exist (Cunha et al., 2016; Lan et al., 2024).

According to Cunha et al., (2016, p. 119), motivation at work suggests an inner state that involves a “set of energetic forces,” originating in the individual or outside him, and which give rise to work behavior, “determining its form, direction, intensity and duration.” In the work context, managers use this medium to encourage people to take the right actions to achieve the objectives or goals pre-established by the company (Kumari et al., 2021). In this sense, motivated employees are a source of competitive advantage for organizations (Koo et al., 2020; Okpebholo & Sheikh, 2020). According to Neves (1998), companies have the means to exert a direct influence on motivation: fair remuneration, subsidies and monetary incentives, trust, respect, recognition, and opportunities for growth (Ghose & Mohanty, 2016; Jayawardena & Jayawardena, 2020; Mabaso et al., 2021; Manzoor et al., 2021). Motivation also depends on individual and contextual characteristics, and management practices will have different impacts depending on each individual (Cunha et al., 2016).

Job satisfaction has been raising research interest, due to the fact that there is evidence that high levels of satisfaction lead to increased productivity and, consequently, are reflected in profits (Martono et al., 2018; Spector, 1997). Factors such as pay, promotion, recognition, company culture, and work environment determine the degree of satisfaction of workers: lower levels of satisfaction will have a direct impact on professional behavior (e.g., less commitment, less productivity, lack of autonomy and little capacity of initiative and creativity) (Hareendrakumar et al., 2020; Mabaso et al., 2021; Muzafary et al., 2021; Onu et al., 2022; Pham et al., 2024). The literature is consensual in recognizing that satisfied work teams create positive organizational cultures, reinforce motivation, assume the company’s objectives, and contribute to organizations becoming more productive. According to Cunha et al. (2016), motivation and job satisfaction are often two inseparable variables. Satisfaction is associated with well-being, while motivation brings into play a set of stimuli that will influence an individual’s action. In this way, motivation at work can be defined by the degree of satisfaction and pleasure with which the worker performs his work, considering that the greater the satisfaction achieved, the more motivated and more committed the professional will be to the execution of their tasks.

## Reward Systems

Organizations have shown greater concern regarding the management of human capital. Organizational structures have made use of incentive methods and reward systems, aligning these with the business and simultaneously trying to meet the expectations and motivational interests of their workers (Sousa et al., 2006). According to Marques and Cunha (2000, p. 117), “the rewards attributed to employees assume a central aspect” in the relationship between employees and the company itself.

Chiavenato (2008) refers that the rewards applied by the company have an impact on the behavior and attitude of the employee, triggering levels of satisfaction in the employees, leading them to be willing to align their individual resources with the company's activity. In this sense, the reward systems management is an integral part of the company's strategic framework and has represented a relevant challenge in terms of human resources management (Saad et al., 2021; Sousa et al., 2006).

An increasing number of studies have exposed reward processes as essential to guarantee sustainable companies, since they bring into play a set of personal and contextual variables that interfere in the process of carrying out work and in achieving good results. Such determinants take into consideration specific personality characteristics and a set of technical and professional skills that dictate the level of performance and the success of the employee's dedication (Camara et al., 2013). With regard to business management, the structure of an employment relationship presupposes that there is a principle of convergence between the interests of the organization and those of the employee (Camara et al., 2013). The company's interests revolve around the worker's skills and behavior, focusing on performance, work quality, and commitment to the company's values (Adebanji et al., 2022; Alrazihi et al., 2021; Ji & Cui, 2021). The employee focuses and acts essentially on the basis of a set of counterparts, that is, a reward system (Jayawardena & Jayawardena, 2020; Oravee et al., 2018).

Table 1 shows a summary of several definitions of the reward systems concept.

Reward systems fall into two categories: extrinsic or monetary rewards (e.g., salary, incentives, benefits, status symbols such as company car) and intrinsic or non-monetary rewards (e.g., autonomy and responsibility, positive feedback, development personnel, attribution of honorable mentions) (Camara, 2021; Jayawardena & Jayawardena, 2020; Manzoor et al., 2021; Oravee et al., 2018; Sotomayor et al.,

**Table 1** Definitions of the concept of reward systems

Authors	Definition
Camara et al., (2013, p. 439)	"The reward systems consist of a set of material and immaterial considerations that employees receive, due to the quality of their performance, for their long-term contribution to the development of the business and for their identification with the company's values and operating principles"
Nunes and Vala (2007, p. 140)	"The reward system can be considered as a set of devices created by the organization to reward the contributions of its employees"
Sousa et al., (2006, p. 90)	"A reward system is a set of principles and guidelines that the company defines in relation to its employees, in terms of remuneration, whether of a material or immaterial nature, in return for the work carried out"
Wood and Picarelli (1996, p. 83)	"It is a set of different forms of reward that complement each other and seek to align attitudes and behaviors with organizational objectives"
Dutra (2002, p. 171)	"Rewards can be understood as meeting people's expectations and needs, such as: economic, personal and professional growth, security, social projection, recognition, the possibility of being able to express themselves through their work, etc."

2014). It is important to clarify that the attribution of incentives is done according to the results of the performance evaluation, and not all employees are contemplated with this type of reward. The implementation of a reward system aims to involve the workers, seeking to obtain the desired behavior from them and their identification with the purpose of the organization (Ji & Cui, 2021). According to Sotomayor et al. (2014), this management practice has three objectives: to attract, motivate and retain the best employees of a company. According to Camara (2021), to ensure the effectiveness of a reward system, it is necessary that, on the one hand, this system be structured considering the strategic purposes, appealing to employee behaviors that are aligned with them, and, on the other hand, it is imperative that its implementation meets the realities of the individuals to whom the rewards are intended, and that its elaboration are based on criteria of clarity, transparency and equity, so that the reward management is perceived as credible, fair and objective (Ferreira et al., 2018; Shaheen et al., 2020; Silva et al., 2022). Poor management of the reward system can lead to completely opposite behaviors, namely frustration, withdrawal, disinterest, and discomfort among employees, compromising the quality and level of performance (Almeida, 2019; Alrazehi et al., 2021; Onu et al., 2022; Sotomayor et al., 2014).

## Reward Systems and Knowledge Sharing

Reward systems are considered a critical factor in promoting knowledge sharing within organizations (Kim & Hang, 2024). Ambidextrous leaders, for example, consider it essential to have a culture of knowledge sharing among a company's employees, since this practice enhances individual development and optimizes organizational performance (Harandi et al., 2024). The way in which companies recognize and encourage their employees has a direct impact on their willingness to share their knowledge and experiences (Kaushal & Nyoni, 2022). Furthermore, through this sharing process, companies ensure greater internal efficiency, reducing duplication of efforts and avoiding the repetition of errors, in addition to being able to instill greater dynamism in the creation of new ideas to face organizational challenges (Cormican et al., 2021). Additionally, knowledge sharing promotes the continuous development of employees' skills, which, in turn, increases productivity and the quality of the work performed (Harandi et al., 2024).

One of the main positive impacts of reward systems on knowledge sharing is the creation of an environment that values interaction between work teams (Kim & Hang, 2024). Thus, when employees perceive that their initiatives are recognized, whether through financial incentives, recognition, or professional development opportunities, they are more willing to cooperate and interact. This dynamic is crucial for organizations, as it generates a continuous flow of ideas and learning, which is essential for the growth and sustainability of companies in today's market (Zhang et al., 2024).

According to Wang and Kim (2024), knowledge sharing is facilitated in environments where there is trust and mutual support. Currently, digitalization and innovation in knowledge management practices have brought about significant changes in reward systems within organizations. With the advancement of digital technologies

and the increasing importance of knowledge as a strategic resource, companies have been rethinking ways to encourage knowledge sharing to ensure that it is widely accessible and used for innovation and competitive advantage (Nguyen & Malik, 2020; Wang & Kim, 2024). The use of digital platforms allows for real-time recognition of each individual's contributions, creating a more dynamic, current, and up-to-date environment. Thus, the creation of social Q&A communities (Wang & Kim, 2024), for example, can represent a strategy to promote knowledge sharing, when combined with rewards that recognize collective contributions. Wang and Kim (2024) argue that these communities not only help to solve problems quickly, but also promote the creation of a knowledge repository of great value to the organization, allowing good practices to be consulted by any team member at any time. Communities of practice (CoPs), as described by Zhao et al. (2022), are also a powerful way to encourage knowledge sharing. Frequent interactions and trusting relationships between members of a CoP encourage ongoing collaboration and create an environment where knowledge sharing occurs in a fluid and natural way. Zhao et al. (2022) highlight, however, that although extrinsic rewards, such as financial incentives, can promote more initial participation, it is crucial that intrinsic motivation, such as the desire to learn and the satisfaction of helping others, is fostered to ensure sustainable and authentic participation.

Zhang et al. (2024) draw particular attention to the fact that all shared knowledge must be aligned with the organization's overall strategy. In this sense, it is essential that the incentives applied by the company and the sharing of know-how among employees are focused on tangible results, such as the development of new ideas or the improvement of processes, thus enabling the optimization of innovation and the increase of the company's performance (Chang et al., 2017).

## Methodology

The main objective of this study is to evaluate the impacts of reward systems on the behavior and attitudes of workers in an organizational environment. To this end, a systematic review of the literature was carried out, based on the methodology of Fortin (2009) and Page et al. (2021). The systematic review process is formalized through a research strategy and aims to deepen understanding regarding the subject studied (Fortin, 2009). According to Sampaio and Mancini (2007), systematic review allows the aggregation of data from a set of studies carried out separately on a given topic, as well as enabling the identification of subjects that need evidence, suggesting guidelines for future research.

To achieve these objectives, the Web of Science, Scopus and Business Source Complete databases were used, due to their scope in relation to the subject studied. Through the PRISMA protocol (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) (Page et al., 2021), the research was divided into three phases: identification, screening, and inclusion (Fig. 1), with previously defined inclusion and exclusion criteria, as outlined in Table 2.

First, Mendeley Reference Management Software was used to eliminate duplicate documents, and then, the titles and abstracts were read. Finally, all studies based on

literature review, master’s and doctoral dissertations, conferences, and book chapters were excluded. The Similar Boolean search terms (type of search that allows combining keywords with operators—or modifiers, such as “AND” and “OR”) were applied on three databases. Subsequently, only peer reviewed articles in English, Spanish, Portuguese, and French were selected, published between 2015 and 2022, that addressed the concepts in the title, abstract, and keywords. The limitation of the search to a temporal range is related to the aim of the study, which consists of

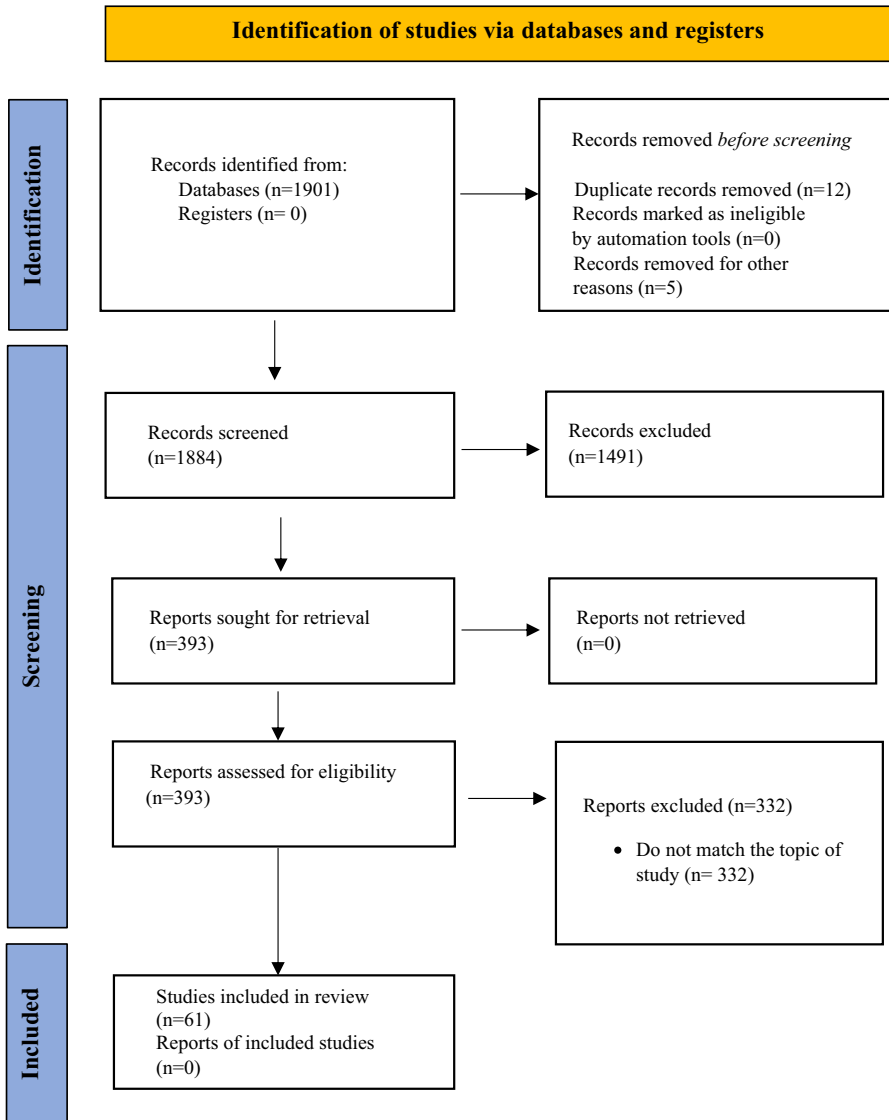


Fig. 1 Article selection and exclusion flowchart, according to PRISMA 2020

**Table 2** Description of the procedures adopted in the systematic research

Criteria	Selection	Exclusion
Database Scopus	TITLE-ABS-KEY(("reward systems" OR "sistemas de recompensa" OR "extrinsic reward" OR "recompensa extrínseca" OR "intrinsic reward" OR "recompensa intrínseca") AND (employee OR funcionário OR worker OR trabalhador OR staff OR "equipa de trabalho" OR organization OR organização))	
Web of Science	TS(("reward systems" OR "sistemas de recompensa" OR "extrinsic reward" OR "recompensa extrínseca" OR "intrinsic reward" OR "recompensa intrínseca") AND (employee OR funcionário OR worker OR trabalhador OR staff OR "equipa de trabalho" OR organization OR organização))	
Business Source Complete	("reward systems" OR "sistemas de recompensa" OR "extrinsic reward" OR "recompensa extrínseca" OR "intrinsic reward" OR "recompensa intrínseca") AND (employee OR funcionário OR worker OR trabalhador OR staff OR "equipa de trabalho" OR organization OR organização)	
Document type	Quantitative studies Empirical studies Case studies  Qualitative studies with application of interviews or questionnaires Scientific Journals	Literature review Systematic review Dissertations (Master and Doctorate) Conferences Book chapters
Language	English, Portuguese, French and Spanish	
Publication year	From January 1, 2015 to December 31, 2022	
Subject	Reward systems, extrinsic reward, intrinsic reward, worker, employee, staff, organization	
Results	Extrinsic and intrinsic motivation  Recognition  Job satisfaction  <i>Performance</i>  Commitment  Trust  Organizational identification  <i>Engagement</i>  Productivity  Innovation  Creativity  Knowledge sharing  <i>Feedback</i>  Praise  Wage  Retention  Autonomy  Pride  Loyalty	

**Table 2** (continued)

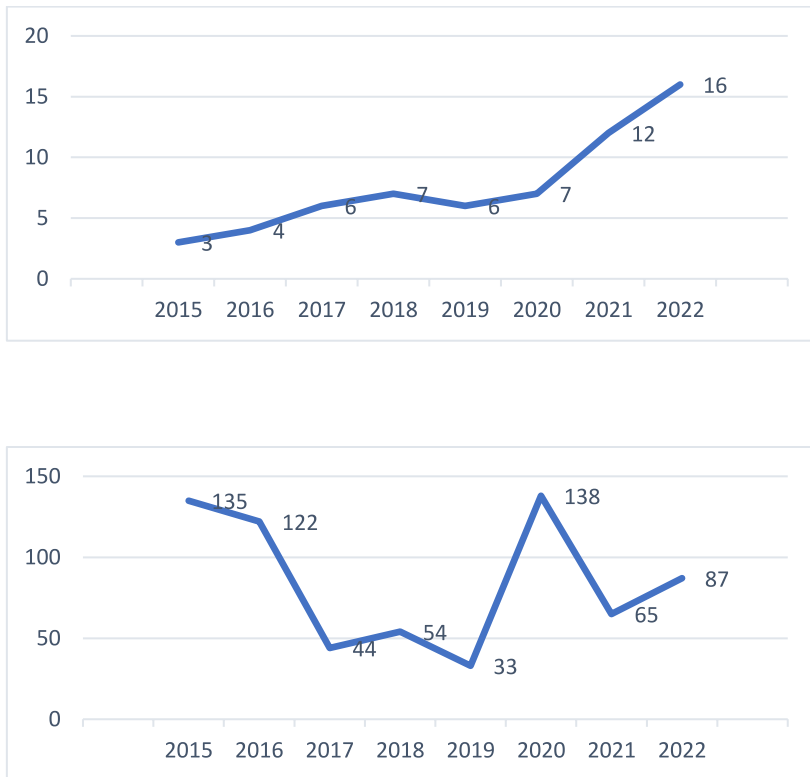
Criteria	Selection	Exclusion
	Self-esteem	
	Safety	
	Reduction of emotional exhaustion	
	Professional valorization	
	Responsibility	
	Skills	
	Quality	
	Justice	
	Equity	
	Transparency	
	Frustration	
	Stress	
	Injustice	
	Discouragement	
	Disinterest	

analyzing the literature on the impact of reward systems in organizational contexts, covering the periods immediately before, during and after the Covid-19 pandemic. Hence, when analyzing the period from 2015 to 2022, an updated and pertinent analysis is offered on the dimension of reward systems and the dynamics triggered by the pandemic. In addition, the search provided several review and meta-analysis studies on reward systems with a wide temporal spectrum (e.g., Cerasoli et al., 2014; Chen et al., 2023; Garbers & Konradt, 2014; Kaushal & Nyoni, 2022; Nascimento et al., 2019), which reinforced the option of limiting the year range.

Of the 1901 documents found and after applying the exclusion and inclusion criteria, 61 articles were considered adequate. At the end of the selection process, the relevant data of each article was systematized: journal, the year of publication, authors, the objectives and methodology of each study, as well as the instrument and the main results. A total of 61 articles were analyzed in this study (Appendix A). Table 2 shows the procedures adopted at the time of the research.

## Results

Although research in the field of reward management is still scarce, an analysis of Fig. 2 shows an exponential growth in the field of research. It was possible to select a total of 12 articles, published in 2021, and 16 articles, published in 2022, i.e.,



**Fig. 2** Scientific articles and citations per year

twice as many publications in relation to each of the previous 4 years. This result allows us to conclude that there is an increasing number of researchers analyzing this topic. Furthermore, it is observed that, despite the decrease in the number of citations between 2015 and 2019, 2020 records a new maximum number of citations in Scopus (138 citations), which reflects a new dynamic in relation to this theme and suggests a new research trend.

Of the 61 articles reviewed, the 5 articles with the highest number of citations are:

1. Foss et al. (2015): 89 citations; 12.7 citations per year
2. Nazir et al. (2016): 84 citations; 14 citations per year
3. Koo et al. (2020): 65 citations; 32.5 citations per year
4. Nguyen and Malik (2020): 64 citations; 32 citations per year
5. Martin-Perez and Martin-Cruz (2015): 46 citations; 6.5 citations per year

Table 3 shows the top 20 journals, out of the 54 in this review, based on data provided by Scimago Journal & Country Rank (SJR) and the Journal Citation

Report (JCR). The set of publications is predominantly of the Business and Management areas. The journals with the most publications are *Frontiers in Psychology* (three articles), followed by *Human Resource Management*, *Journal of Knowledge Management*, and *Sustainability* (two articles). The journals *Journal of Knowledge Management* (JIF 7.0) and *Human Resource Management* (JIF 6.6) stand out, which have a high impact factor. Furthermore, it was observed that 10 publications are part of quartile 1, representing 18% of the total number of journals, while the other 10 (18%) are classified in quartile 2, which reiterates the relevance of this research topic.

From the analyzed articles, it appears that reward management is a topic of international interest, since the studies carried out point to the realities of several countries, with Nigeria ( $n=8$ ) and Brazil ( $n=6$ ) being those with the highest number of studies (Fig. 3). It is also possible to verify that the dissemination of articles is ensured by journals edited all over the world, denoting a clear leadership of the UK, with 13 publications, followed by the USA, with 10 articles published (Fig. 4).

In the analysis process, the size and target group of each sample was taken into account (see Appendix A). As these are empirical research, mostly using a quantitative method (95%), the number of individuals was considered relevant, since representative samples are necessary to ensure consistency and make the conclusions valid, with a view to generalization (Coutinho, 2011). As an evaluation measure of reward practices, there was a great predominance of the questionnaire survey, verifying that 57 of the evaluated studies (95%) chose the questionnaire as a data collection instrument, and the qualitative studies (Mabaso et al., 2021; Ngamkroeckjoti et al., 2022; Serhan et al., 2021) were based on interviews. The study by Oravee et al. (2018), who favored a mixed approach, made use of both instruments, questionnaire and interview.

Finally, the diversity of theoretical paradigms used in the set of studies was analyzed. For a better organization and understanding, the main theories are systematized in Table 4. The most recurrent theory is Herzberg's Two Factor Theory, also known as Herzberg's Motivation-Hygiene Theory, which aims to understand how organizations can motivate their employees and increase productivity, engagement, and creativity. Hence, this theory emphasizes the importance of hygiene and motivational factors that influence employee motivation and satisfaction, as well as workforce behavior and performance.

## Discussion

This systematic review, which aimed to assess the potential of reward systems in the work context, was prepared based on the PRISMA protocol. Of the 1901 articles identified, 61 articles were selected for analysis, after applying the selection and inclusion criteria.

The results demonstrate that the literature on reward systems and factors related to reward practices in work context has grown considerably in the last two years,

**Table 3** The 20 top journals, according to data provided by Bibliometric, Scimago Journal & Country Rank (SJR), and Journal Citation Report (JCR)

Journal	h-index SJR	SJR 2022	JIF 2022	Total citation 2022	Quartile	Research area	Country	No art
E a M: <i>Ekonomie a Management</i>	25	0.31	1.5	600	Q2	Economics/business/manag	Czech Republic	1
<i>Emerging Science Journal</i>	22	0.49	5.09	665	Q1	Multidisciplinary	Italy	1
<i>Employee Relations</i>	62	0.9	3.4	2 651	Q1	Business/manag./account	UK	1
<i>Evidence-Based HRM</i>	17	0.46	1.6	342	Q2	Business/manag./account	UK	1
<i>Frontiers in Psychology</i>	157	0.89	3.8	108 118	Q2	Psychology	Switzerland	3
<i>Human Resource Management</i>	108	2.34	6.6	6 462	Q1	Business/manag./account./psych	USA	2
<i>International Journal of Healthcare Management</i>	23	0.43	2.1	972	Q2	Medicine	UK	1
<i>Journal of Asia Business Studies</i>	27	0.74	2.9	886	Q1	Business/manag./account	UK	1
<i>Journal of Entrepreneurship, Management and Innovation</i>	9	0.4	1.8	347	Q2	Business/manag./account	Poland	1
<i>Journal of Knowledge Management</i>	134	2.2	7.0	9 844	Q1	Business/manag./account	UK	2
<i>Journal of Management Development</i>	69	0.78	3.1	2 842	Q1	Business/manag./account	UK	1
<i>Journal of Public Affairs</i>	33	0.56	2.6	2 652	Q1	Social sciences	USA	1
<i>Journal of Quality Assurance in Hospitality &amp; Tourism</i>	36	0.67	3.3	1 251	Q2	Business/manag./account	USA	1
<i>Journal of Strategy and Management</i>	27	0.71	3.1	850	Q2	Business/manag./account	UK	1
<i>SAGE Open</i>	49	0.46	2.0	8 586	Q2	Social sciences	USA	1
<i>SA Journal of Human Resource Management</i>	12	0.32	1.1	599	Q2	Business/manag./account	South Africa	1
<i>Service Business</i>	39	0.9	5.9	1 309	Q1	Business/manag./account	Germany	1
<i>Sustainability</i>	136	0.66	3.9	187 953	Q1	Social sciences	Switzerland	2
<i>Team Performance Management</i>	40	0.56	1.7	746	Q2	Business/manag./account	UK	1
<i>Thinking Skills and Creativity</i>	58	1.15	3.7	3 349	Q1	Education	Netherlands	1

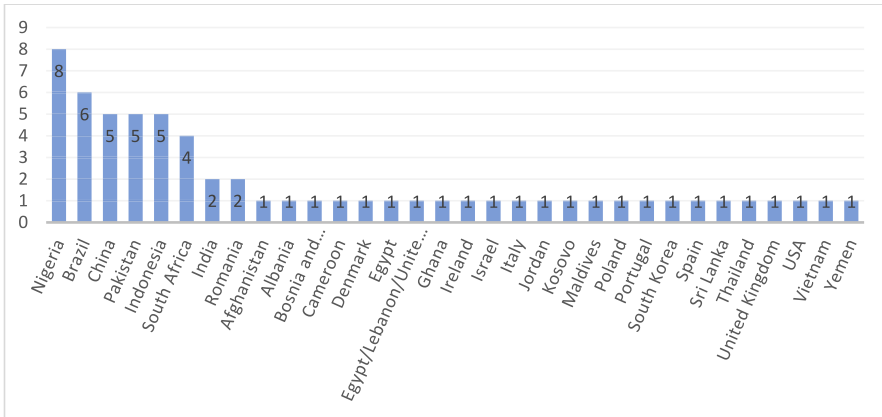


Fig. 3 The most contributory countries—studies

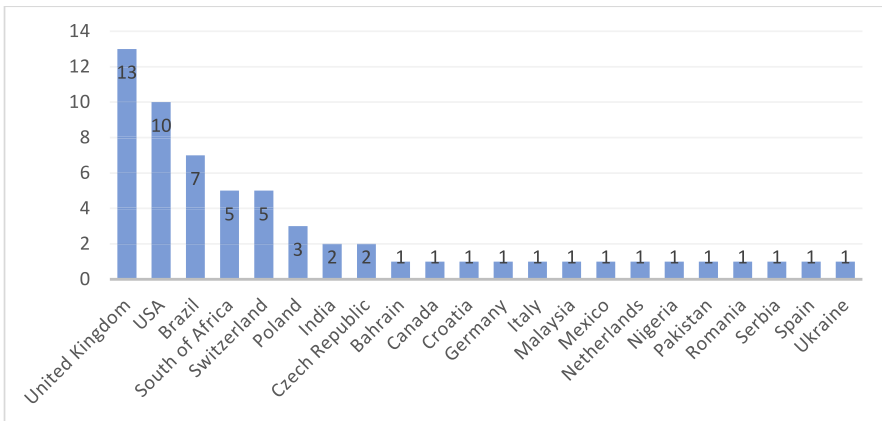


Fig. 4 The most contributory countries—published articles

mainly in the USA, UK, and Brazil. This observation may be the result of the pandemic crisis that the world faced, especially in 2020 and 2021 (Saad et al., 2021; Serhan et al., 2021), which revealed the need to implement robust strategies to leverage organizational performance and company growth, especially because this period caused a lot of instability in organizations (Abdullah et al., 2021; Ngamkroekjoti et al., 2022; Tsai, 2022) and generated a decrease in workforce productivity (Nemteanu et al., 2022). Following this same line of analysis, when analyzing the geographic context, countries such as Nigeria (Kamselem et al., 2022), Pakistan (Abdullah et al., 2021; Baig et al., 2022; Baig et al., 2022), Sri Lanka (Jayawardena & Jayawardena, 2020), South Korea (Koo et al., 2020), Egypt, Lebanon, and the United Arab Emirates (Saad et al., 2021; Serhan et al., 2021), on the one

**Table 4** Main theories

N	Theory	Article examples
17	<p><b>Herzberg's Two-Factor Theory</b> (also known as Herzberg's Motivation-Hygiene Theory) (Herzberg, 1968)—For this author, two types of factors, hygiene factors (including salary, fringe, benefits) and motivational factors (such as recognition, responsibility...) affect job satisfaction and motivation. This theory posits that these two factors urge employees to be more productive, creative and committed</p>	<p>Martono et al. (2018); Oravee et al. (2018); Pinho et al. (2018); Bogicevic-Milicic and Dosenovic (2020); Jayawardena and Jayawardena (2020); Alrazehi et al. (2021); Eneh et al. (2022); Hassan (2022); Tarigan et al. (2022)</p>
12	<p><b>Vroom's Expectancy Theory</b> (Vroom, 1964)—emphasizes the importance of linking rewards directly to performance in order to motivate employees. If an individual knows that their performance is recognized and rewarded, he gets motivation to perform in a higher level</p>	<p>Siahaan (2017); Jayawardena and Jayawardena (2020); Nguyen and Malik (2020); Manzoor et al. (2021); Salman and Olawale (2021); Adebajji et al. (2022); Baig et al. (2022)</p>
11	<p><b>Adams' Equity Theory of Motivation</b> (Adams, 1963)—Individuals are motivated by their perception of fairness and equity in the distribution of rewards in comparison to their inputs, such as effort, skill, experience, and time. This theory suggests that employees are motivated when they feel they are receiving a fair reward for their effort and performance</p>	<p>Gov (2015); Siahaan (2017); Elmadag and Ellinger (2018); Ferreira et al. (2018); Adeoye and Obanewo. (2019); Hareendrakumar et al. (2020); Salman and Olawale (2021); Sarpong et al. (2021) Baig et al. (2022)</p>
10	<p><b>Maslow's Theory of Need</b> (also known as Maslow's Hierarchy of Needs Theory) (Maslow, 1943)—Maslow's theory suggests that rewards can be used to motivate people to satisfy their needs. This theory can be an important framework for organizations to understand the needs of their work teams and create a work environment that promotes employee satisfaction and well-being</p>	<p>Jayawardena and Jayawardena (2020); Kumari et al. (2021); Salman and Olawale (2021); Adebajji et al. (2022)</p>

Table 4 (continued)

N	Theory	Article examples
10	<b>Self-Determination Theory</b> (Ryan & Deci, 2000)—In accord with these authors, individuals are more likely to be motivated and engaged with their work if they feel a sense of autonomy, competence, and relatedness in their job	Gov (2015); Shaheen, et al. (2020); Nguyen and Malik (2020); Manzoor et al. (2021); Sarpong et al. (2021); Baig et al. (2022); Beqiri and Aziri (2022); Lin et al. (2022); Ngamkroekjoti et al. (2022)
7	<b>Social Exchange Theory</b> (Thibaut & Kelley, 1959)—The theory is based on the idea that individuals are motivated to maximize their own benefits or rewards in social interactions and will engage in social behavior based on a cost–benefit analysis. Social Exchange Theory can be used to explain how employees make decisions about staying or leaving a job	Alhmod and Rjoub (2019); Alrazehi et al. (2021); Ji and Cui (2021); Saad et al. (2021); Sarpong et al. (2021); Mulyaningsih et al. (2022); Nemţeanu et al. (2022)
5	<b>Reinforcement Theory of Motivation</b> (Skinner, 1958)—suggests that when behaviors are reinforced when they are followed by a positive consequence, such as a reward or recognition, it is more likely to be repeated in the future. So, according to Skinner, positive behaviors should be rewarded positively	Jayawardena and Jayawardena (2020); Shaheen, et al. (2020); Salman and Olawale (2021)
4	<b>Self-Efficacy Theory</b> (Bandura & Walters, 1977)—According to the theory, higher levels of self-efficacy are associated with greater motivation, effort, and better performance	Pinho et al. (2018); Nguyen and Malik (2020); Saad et al. (2021); Beqiri and Aziri (2022)
4	<b>Conservation of Resources (COR) Theory</b> (Hobfoll, 1989)—This theory suggests that individuals are motivated to protect and conserve their resources, including tangible resources such as money, time, and energy, as well as intangible resources such as self-esteem and social support. According to the theory, individuals experience stress when their resources are threatened or lost	Ji and Cui (2021); Nemţeanu et al. (2022); Tariqan et al. (2022); Tsai (2022)
1	<b>Range of Affect Theory</b> (Locke, 1976)—Locke proposes that job satisfaction is determined by the discrepancy between an individual's expectations or desires for the job and the actual outcomes or rewards received	Koo et al. (2020)

Table 4 (continued)

N	Theory	Article examples
1	<b>Marshallian Efficiency Wage Model</b> (Whitaker, 1974)—is an economic theory that suggests that firms may benefit from paying their employees more than the market wage in order to increase their productivity	Serhan et al. (2021)
1	<b>Theory of Reasoned Action</b> (Ajzen & Fishbein, 1980)—The theory attempts to explain how attitudes and social norms shape human behavior	Cormican et al. (2021)
1	<b>ERG theory of Motivation</b> (Alderfer, 1969)—It is an extension of Maslow's hierarchy of needs. This theory is a framework for understanding human motivation and proposes that recognizing and rewarding employees for their achievements can help fulfill their growth needs and promote their motivation and engagement	Jayawardena and Jayawardena (2020)
1	<b>Theory of Learned Industriousness</b> (Eisenberger, 1992)—According to Eisenberger's theory, employees who are rewarded for their efforts are more likely to continue working hard and achieving results	Lin et al. (2022)
1	<b>Efficiency Wage Theory</b> (Akerlof, 1984)—This theory argues that paying workers above the market wage can increase their productivity and reduce turnover	Ngwa et al. (2019)
1	<b>Resource-Based Theory</b> (Barney, 1991)—emphasizes the importance of developing and maintaining resources that are valuable, rare, inimitable, and non-substitutable (VRIN). According to RBT, human resources can be a source of sustained competitive advantage if they meet the VRIN criteria	Tarigan et al. (2022)
1	<b>Meyer's and Herscovitch Three-Component Model of Commitment</b> (Meyer's & Herscovitch, 2001)—It is a widely accepted model for understanding employee commitment in organizations. The model proposes that commitment has three main components: affective commitment (affection for your job), continuance commitment (fear of loss), and normative commitment (sense of obligation to stay)	Taba (2018)

hand, face with very low levels of employee performance and high turnover intention rates (Okpebholo & Sheikh, 2020) and, on the other hand, these countries consider reward systems an important and competitive tool to drive positive employee behavior.

A common axis to all the studies analyzed is the fact that they list the impacts of reward systems in the business context. These studies point out that valuing the behavior and commitment of employees through (financial and non-financial) rewards raises higher levels of satisfaction and motivation in workers (Adeoye & Obanewo, 2019; Alrazehi et al., 2021; Bogicevic-Milikic & Dosenovic, 2020; Jayawardena & Jayawardena, 2020; Mulyaningsih & Ardiati, 2022; Nemteanu et al., 2022; Oravee et al., 2018; Tănăsescu & Leon, 2019) and, consequently, a higher level of engagement (Ghose & Mohanty, 2016; Hoole & Hotz, 2016; Ji & Cui, 2021; Kamselem et al., 2022; Saad et al., 2021; Victor & Hoole, 2017) and commitment (Gabrani et al., 2016; Nazir et al., 2016; Taba, 2018; Tamaschiro et al., 2019), as well as the quality of work performed (Beqiri & Aziri, 2022; Leitão et al., 2022; Martono et al., 2018; Ngwa et al., 2019; Santos et al., 2019).

Overall, through this analysis, it is possible to conclude that reward management as a competitive tool in the workplace is important and necessary (Serhan et al., 2021). The reward system provides several positive benefits for diversified public and private services (Nazir et al., 2016), namely banks (Alhmoud & Rjoub, 2019; Alrazehi et al., 2021; Beqiri & Aziri, 2022; Okpebholo & Sheikh, 2020; Onu et al., 2022; Saad et al., 2021; Serhan et al., 2021; Shaheen et al., 2020; Siahaan, 2017; Taba, 2018), insurance companies (Adeoye & Obanewo, 2019), communities of practice (CoPS) (Zhao et al., 2022), consulting firms (Mabaso et al., 2021), cooperatives (Silva et al., 2022), manufacturing companies (Hareendrakumar et al., 2020; Kumari et al., 2021; Lin et al., 2022; Ngwa et al., 2019), retail companies (Hassan, 2022), kindergartens (Ji & Cui, 2021), factories (Eneh et al., 2022; Foss et al., 2015; Leitão et al., 2022; Victor & Hoole, 2017), government agencies (Mulyaningsih & Ardiati, 2022), hotels (Koo et al., 2020), universities (Adebanji et al., 2022; Ferreira et al., 2018; Sarpong et al., 2021), hospitals (Abdullah et al., 2021; Baig et al., 2022; Beck-Krala et al., 2017; Gabrani et al., 2016; Kamselem et al., 2022), and pharmaceutical industries (Pinho et al., 2018).

The impacts that are most commonly associated with reward systems involve positive aspects such as job satisfaction, extrinsic and intrinsic motivation, recognition, performance, commitment, engagement, productivity, innovation, autonomy, security, reduction of emotional exhaustion, responsibility, skills, and quality. An increase in creativity is also mentioned (Alberton & Carvalho, 2017; Lin et al., 2022; Muzafary et al., 2021; Ngamkroeckjoti et al., 2022; Onu et al., 2022), greater organizational identification (Ji & Cui, 2021), knowledge sharing attitudes (Cormican et al., 2021; Foss et al., 2015; Kim & Hang, 2024; Martin-Perez & Martin-Cruz, 2015; Muzafary et al., 2021; Nguyen & Malik, 2020; Zhao et al., 2022), decreased turnover (Jayawardena & Jayawardena, 2020; Koo et al., 2020), and employee retention (Alhmoud & Rjoub, 2019; Alrazehi et al., 2021; Hassan, 2022; Kamselem et al., 2022; Mabaso et al., 2021). However, empirical results regarding the impacts of rewards differ. Beqiri and Aziri (2022), Martono et al. (2018), Serhan et al. (2021), Siahaan (2017), and Taba (2018) conclude that reward initiatives positively

influence employee performance. Tănăsescu and Leon (2019) consider that the relationship between rewards and performance is not statistically significant. And for Baig et al. (2022), reward systems have no impact on (nurses) behavior towards work and the patient.

Subsequently, to understand the dominant approaches of the set of the articles, a content analysis was carried out.

### **Effects of Reward Systems on Worker Motivation and Satisfaction, Inducing Performance, and Productivity**

Beqiri and Ariri (2022), Eneh et al. (2022), and Martono et al. (2018) positively highlighted reward systems, presenting it as a potential tool, because it can influence employee motivation and satisfaction, which contributes to increased productivity and business success. Mabaso et al. (2021) and Mulyaningsih et al. (2022) also concluded that when an organization offers rewards, their workers feel that they have received much-needed feedback and recognition for their performance. Kumari et al. (2021), Peluso et al. (2017), and Taba (2018) agreed that companies reward their work teams with salaries, promotions, and other non-financial rewards to keep them motivated and obtain from them the desirable behavior with a view to greater levels of commitment. Research by Santos et al. (2019) corroborated these results, arguing that rewards can increase employees' production levels as well as the quality of work. The implementation of these systems allows companies to signal employees whose attributes and behavior are in line with their expectations, which creates favorable conditions for motivation and increased self-esteem of employees. Onu et al. (2022) and Siahaan (2017) argued that rewards cannot be dissociated from organizational performance, since rewards provide the necessary conditions to manage and boost a company.

According to Alhmoud and Rjoub (2019) and Jayawardena and Jayawardena (2020), the combination of both types of rewards, monetary and non-monetary, generates positive behaviors, which contributes to an improvement in task operationalization levels. Hence, intrinsic and extrinsic rewards play a crucial role and are an essential tool for any company (Blain et al., 2023; Kumari et al., 2021), because generate satisfaction and increase employee motivation, stimulating them to carry out their activities (Leitão et al., 2022; Nemteanu et al., 2022; Ngwa et al., 2019; Peluso et al., 2017). For instance, in banking institutions, studies have indicated that employees who receive most rewards are the ones who are most satisfied and motivated in relation to their profession, which, consequently, encourages them to increase performance towards customers (Beqiri & Aziri, 2022; Serhan et al., 2021; Shaheen et al., 2020; Siahaan, 2017). Kamsalem et al. (2022) reached similar conclusions in the health sector. Ngamkroekjoti et al. (2022) concluded that rewards were part of motivational factors with greatest impact on the performance of teleworkers.

## Effects of Reward Systems on Workers' Commitment

Adebanji et al. (2022), Taba (2018), Tamaschiro et al. (2019), Nazir et al. (2016), and Peluso et al. (2017) conclude that reward practices are crucial to enhance organizational commitment of employees. According to Gabrani et al. (2016), when organizations considered the expectations of workers in relation to their work and needs, they develop greater commitment to organization. Adebanji et al. (2022) and Tamaschiro et al. (2019) also emphasize that, when assigning rewards, it is essential that organizations value the skills of their employees, since it has been demonstrated that management based on skills and abilities has a significant impact on behavior.

## Effects of Feedback on Workers' Behavior

For Santos et al. (2019), reward initiatives influence not only the behavior of work teams, but also the attitude and conduct of business managers. According to Skinner (1958), this segment of workers, when faced with positive feedback and rewards, is more motivated and, consequently, presents higher levels of productivity. The authors consider that the process of evaluating the performance of managers must involve, simultaneously, feedback and methods of rewarding the work carried out, in order to guarantee better results.

## Effects of Reward Systems on Worker Retention

According to Mabaso et al. (2021), Sarpong et al. (2021), and Victor and Hoole (2017), reward strategies are understood as determinants of workforce retention, which means, less turnover. For Alhmoud and Rjoub (2019), organizations should adopt more attractive approaches, in order to encourage them to stay longer in the company, minimizing turnover situations—which compromise production operations, as well as the company's growth. Bwowe and Marongwe (2018), Hassan (2022), Jayawardena and Jayawardena (2020), and Kamselem et al. (2022) reached similar conclusions to Alhmoud and Rjoub (2019). The study by Alrazehi et al. (2021) corroborates this evidence, arguing that it is the rewards that lead Yemeni bank employees to remain in the institution and willing to make a lasting commitment to the company. Sarpong et al. (2021) concluded that as important as remuneration is that employees have a positive environment and that rewards are defined according to performance. Alrazehi et al. (2021), Mabaso et al. (2021), Sarpong et al. (2021), and Siahaan (2017) are unanimous in considering performance assessment to show employees recognition for their efforts and good results, which encourages them to stay with the company,

Hassan (2022) also highlights the fact that, in order to retain talented employees, remuneration must be competitive in relation to the market. In addition, managers should consider a reward structure that encompasses a diverse range of benefits. According to this author, it is important to ensure that companies offer incentives and support in the area of education and personal development, medical treatment services, or even retirement funds, pension plans, promotions, etc.

Tarigan et al. (2022) conclude that the effects of compensation may differ across generations. The authors found that, in the case of Generation Z (the youngest generation with adult members), satisfaction is not only stimulated through monetary incentives, but also through intrinsic stimuli. Generation Z or Zoomers, the individuals born in the mid-1990s, are known to be more innovative and enterprising than previous generations. Thus, for companies to be able to retain this generation's workforce, they must offer the right conditions, that is, offer the possibility of autonomy, promoting self-training, responsibility, creativity, and innovation.

### Effects of Reward Systems on Knowledge Sharing

The literature indicates that knowledge sharing is often explored together with reward and incentive systems. These resources are considered essential to encourage employees to actively contribute to the internal knowledge and know-how sharing (Muzafary et al., 2021).

According to Nguyen and Malik (2020), employees often resist sharing their knowledge with colleagues and the organization. For Foss et al. (2015), this explains why several companies choose to implement business practices that promote knowledge management through intrinsic and extrinsic stimuli. Cormican et al. (2021) and Muzafary et al. (2021) confirmed, although not always directly, the existence of a positive relationship between reward management and knowledge sharing among employees.

For Zhao et al. (2022), intrinsic rewards play a relevant role both in sharing explicit knowledge and in sharing tacit knowledge, that is, the workers know-how. This is important for companies, because through the management of intellectual capital, conditions are created for greater efficiency and better optimization of operations, which opens the way for change and innovation (Nguyen & Malik, 2020; Peluso et al., 2017). This evidence is corroborated by the study by Zhao et al. (2022), who highlight the role of transformational leadership in rewarding and sharing knowledge, particularly in the context of developing communities of practice (CoPS). Thus, it was demonstrated that transformational leadership, which, in essence, aims at satisfying workforces, can contribute to increasing the impact of rewards on motivation. This process helps to improve the effectiveness and dynamics of these communities and, consequently, the efficiency of the company.

Kim and Hang (2024) also make it clear that the implementation of reward systems in companies is a strategic resource that aims to share knowledge among employees. In an environment that values and recognizes efforts, employees interact more with each other, demonstrating greater willingness and greater dynamism in sharing experiences and knowledge. This sharing is crucial for the growth and sustainability of companies, as it ensures business efficiency and optimization of corporate profits.

Research such as that by Gal and Hadas (2015) and Kaushal and Nyoni (2022) highlights, however, the fact that reward systems, when poorly implemented, can

represent a barrier to organizational goals, and the most skilled and knowledgeable employees, when perceiving injustices and inconsistencies in this process, may put their personal interests above the company's objectives. Organizations must seek to achieve total efficiency, adjusting their reward policies equitably and transparently, with a view to encouraging greater sharing of know-how among employees, in favor of business objectives.

### Effects of Reward Systems on Teleworkers

Blain et al. (2023), Leitão et al. (2022), Ngamkroekjoti et al. (2022), and Tsai (2022) sought to show how crucial the use of rewards is, since positive impacts on the behavior, satisfaction, work commitment, and well-being of teleworkers have been verified. Employees redoubled their efforts and showed themselves to be more responsible and with a greater degree of commitment to work and the company. For Leitão et al. (2022), Nemțeanu et al. (2022), Ngamkroekjoti et al. (2022), and Tsai (2022), through an incentives and rewards program, the feeling of job insecurity that affects workers in a remote work situation was alleviated, which, consequently, also proved to be effective in mitigating the emotional exhaustion reported by telecommuting teams.

### Effects of Extrinsic Rewards vs. Intrinsic rewards

According to Jayawardena and Jayawardena (2020) and Tarigan et al. (2022), when companies implement a reward system, they are “investing” in their work teams. However, literature is not consistent on the effects of different incentives (Gov, 2015). Silva et al. (2022) and Manzoor et al. (2021) concluded that intrinsic incentives have a greater effect on employee performance when compared to monetary incentives.

Workers prioritize extrinsic rewards to increase their performance (Abasili et al., 2017; Eneh et al., 2022; Okpebholo & Sheikh, 2020; Siahaan, 2017) and obtain the commitment, innovation, and creativity (Beqiri & Aziri, 2022; Gabrani et al., 2016; Ngamkroekjoti et al., 2022; Onu et al., 2022; Peluso et al., 2017). According to Lin et al. (2022) and Shaheen et al. (2020), extrinsic rewards, through intrinsic motivation, lead employees to be more creative, autonomous, and highly committed in performing their duties. For Oravee et al. (2018), it is the salary and promotions that, by responding to the primary needs of employees, promote job satisfaction and ensure performance. Onu et al. (2022) concluded that cash bonuses in Nigeria's banking sector had a significant impact on employee performance, leading them to be more creative and innovative.

Motivational approach based on financial incentives remains debatable. Elmadag and Ellinger (2018) confirmed that extrinsic rewards raise levels of stress at work. When employees perceive that their performance is being supervised by hierarchical superiors, it can lead to anxiety. In this sense, the monetary reward may sometimes not be as evident as expected and, in certain

cases, even be assumed to be counterproductive. The study carried out by Silva et al. (2022) corroborates these findings, as the absence of impact of extrinsic rewards on employee performance was verified. Several external factors such as “the employee’s cognitive capacity, skills, personality, previous experiences, the importance of the task” were pointed out as being able to justify this situation. In the relationship between company and employee, money remains an instrument of reward (e.g., Martono et al., 2018; Oravee et al., 2018). For Beqiri and Aziri (2022) and Eneh et al. (2022), the salary allows to fulfill the basic needs of employees and, at the same time, maintains their performance.

Abdullah et al. (2021) and Manzoor et al. (2021) indicate that intrinsic rewards are more commonly associated with employees’ internal feelings. In this sense, it is possible to boost feelings of well-being, self-esteem, higher levels of job satisfaction (Bogicevic-Milikic & Dosenovic, 2020), and reduce workers’ stress (Elmadag & Ellinger, 2018). According to Silva et al. (2022), intrinsic rewards directly influence performance, while extrinsic rewards have been shown to have an effect on affective commitment. Research by Muzafary et al. (2021) and Zhao et al. (2022) showed that intrinsic rewards significantly promote the sharing of explicit knowledge, as well as the sharing of tacit knowledge. Abdullah et al. (2021) confirmed that there was an increase in loyalty of private hospital nurses in Pakistan during the COVID-19 pandemic when they receive intrinsic rewards.

### Requirements for the Success and Effectiveness of Reward Systems

According to Siahaan (2017), a reward system is a strategic management system based on the evaluation of the employee’s performance, and which impacts on their behavior. For an effective and profitable rewards system for the company, a set of requirements must be considered when implementing it in the workplace. Silva et al. (2022) concluded that the reward system must be adjusted to the context of each worker and integrate proposals for varied stimuli, due to that rewards have a different impact from employee to employee.

Hareendrakumar et al. (2020) and Kumari et al. (2021) showed that the worker’s perception of how s/he is rewarded can influence their loyalty and behavior in the workplace. Recognition (Abdullah et al., 2021; Ghose & Mohanty, 2016; Jayawardena & Jayawardena, 2020; Mabaso et al., 2021), praise, and fair appreciation remain powerful triggers to encourage workers to produce more and better, with a view to professional growth and progress in the company. In this way, a demonstration of interest in the effort and work performed will contribute to increasing the worker’s self-esteem and autonomy, leading him to adopt a more proactive and efficient behavior in his workplace, aiming to be well rewarded (Admassie, 2019; Kumari et al., 2021).

Ferreira et al. (2018), Shaheen et al. (2020), and Silva et al. (2022) highlighted the need for justice, transparency and equity in the allocation of rewards. It should be noted that the absence of these parameters can negatively influence work teams

in terms of initiative and interest in the organization (Alrazehi et al., 2021; Gal & Hadas, 2015), and there may even be the possibility of contract termination (Onu et al., 2022).

Table 5 shows the classification of the analyzed content into five categories: impacts on work performance, professional indicators, personal indicators, implementation of the reward system, and intangible impacts.

## Conclusion

In carrying out this study, on the one hand, we sought to assess the impact of reward systems in a business context and, on the other hand, to develop a transversal approach around this topic. The set of articles analyzed shows a positive relationship and a significant impact of the practice of rewards on motivation, satisfaction, and, consequently, on the individual performance of workers. The benefits of motivation and job satisfaction include increased performance and productivity, creativity, knowledge sharing, innovation, commitment, and talent retention (Mabaso et al., 2021; Pham et al., 2024). It should be noted, however, that implementing reward systems in companies is a complex challenge, especially with regard to aligning the individual interests of employees with the strategic objectives of the organization. Well-structured incentive policies, combined with efficient knowledge management, play a particular role in this process. Studies in this field show that the synergy between these two resources not only promotes talent retention, but also favors increased productivity and sustainable company growth (Kim & Hang, 2024). In this sense, it is essential that organizations invest in strategies and management that values human capital (Alberton & Carvalho, 2017; Foss et al., 2015; Hareendrakumar et al., 2020; Muzafary et al., 2021; Peluso et al., 2017; Salman & Olawale, 2021).

The increasing changes in the economic world require organizations to promote the performance of their employees (Leitão et al., 2022), aiming to ensure profitability and business success and, with this, guarantee a competitive advantage in the face of global competition (Koo et al., 2020; Okpebholo & Sheikh, 2020). Given this scenario, most studies emphasize that organizational entities should prioritize their human resources, promoting favorable conditions for carrying out the work (Saad et al., 2021). For that purpose, companies should implement effective reward and incentive systems on the behavior of workers, considering that their experience and know-how are an asset to the success of the organization (Adeoye & Obanewo, 2019; Santos et al., 2019; Tănăsescu & Leon, 2019; Zhao et al., 2022). Employees expect that, in exchange for their work, employers will reward them not only extrinsically (e.g., salary, promotions, benefits or bonuses), but through intrinsic rewards (e.g., recognition, praise, satisfaction of their needs of development and career progression) so that they feel able to assume and maintain commitment to the organization (Blain et al., 2023; Gabrani et al., 2016; Mabaso et al., 2021; Peluso et al., 2017). It is for this reason that one of the biggest challenges faced

by business managers is to manage and keep their human workforce satisfied, motivated, committed, and aligned with the objectives and business success. Consequently, one of the main demands they face is the implementation of reward practices that are perceived as fair, clear, transparent, and equitable.

### **Practical and Theoretical Implications**

This study allows for a better understanding of how organizations can use and benefit from reward practices to increase employee performance and achieve their strategic objectives, after a period in which the outbreak of the pandemic generated a lot of organizational instability. Subsequently, this work offers relevant contributions that can be used to improve the design of effective reward systems and also provides important information for the human resources managers, namely:

1. The involvement and performance of workers are decisive factors for success of organizations, and reward strategies can have a significant impact on the quality and level of work, creating conditions for greater efficiency and better optimization of operations;
2. Stimulating employees through rewards can significantly increase their levels of motivation and job satisfaction and also increase their organizational commitment and retention.
3. In order to encourage employees to work hard and efficiently, companies must recognize who consistently demonstrate exceptional performance and reward them with financial bonuses, promotions, etc.
4. To promote knowledge sharing, creativity and innovation, it is essential that organizations implement both intrinsic and extrinsic rewards.
5. Evaluation and feedback processes must be developed by and for managers as a way of recognizing and valuing the work done.

From a theoretical perspective, this study also contributes to the development of the literature on organizational psychology and management and, in particular, emphasizes the importance of training professionals to make more targeted decisions, avoiding results based exclusively on isolated experiences. The present study establishes a deeper knowledge about the practice of reward systems will help organizations to define more adjusted policies, practices and strategies, which positively shape the work environment, with a view to the success and sustainability of the organization.

### **Limitations**

Although aware of the complexity of the subject, this study has limitations that may foster future research. The study brought together a reduced number

**Table 5** Theme categories of the 61 articles on reward systems

Theme categories	Context	Articles
1. Impacts on work performance	Quality; productivity; intensification of work; performance; involvement; engagement; commitment; retention; knowledge sharing; greater customer orientation; creativity; innovation	Foss et al. (2015), Martin-Perez and Martin-Cruz (2015), Gab-rani et al. (2016), Ghose and Mohanty (2016), Hoole and Hoitz (2016), Nazir et al. (2016), Abasili et al. (2017), Alberton and Carvalho (2017), Peluso et al. (2017), Siahaan (2017), Victor and Hoole (2017), Elmadağ and Ellinger (2018), Oravee et al. (2018), Taba (2018), Alhmoud and Rjoub (2019), Ngwa et al. (2019), Santos et al. (2019), Tamaschiro et al. (2019), Jayawardena and Jayawardena (2020), Nguyen and Malik (2020), Cormican et al. (2021), Kumari et al. (2021), Ji and Cui (2021), Mabaso et al. (2021), Manzoor et al. (2021), Muzafary et al. (2021), Saad et al. (2021), Salman and Olawale (2021), Sarpong et al. (2021), Baig et al. (2022), Beqiri and Aziri (2022), Eneh et al. (2022), Kamselem et al. (2022), Lin et al. (2022), Nemeţeanu et al. (2022), Ngamkroekjoti et al. (2022), Onu et al. (2022), Silva et al. (2022), Tarigan et al. (2022), Tsai (2022), Zhao et al. (2022)
2. Professional indicators	Performance evaluation; skills assessment; feedback; managerial support	Santos et al. (2019), Tamaschiro et al. (2019), Adebajji et al. (2022), Mulyaningih et al. (2022), Silva et al. (2022)
3. Personal indicators	Autonomy; responsibility; effort; efficiency; concentration; self-training; skills	Santos et al. (2019), Tamaschiro et al. (2019), Nguyen and Malik (2020), Lin et al. (2022), Ngamkroekjoti et al. (2022), Tarigan et al. (2022)
4. Implementation of the reward system	Organizational culture; positive environment; justice; transparency; equity; clarity	Ferreira et al. (2018), Hareendrakumar et al. (2020), Sarpong et al. (2021), Serhan et al. (2021), Baig et al. (2022), Kamselem et al. (2022), Silva et al. (2022)

Table 5 (continued)

Theme categories	Context	Articles
5. Intangible impacts	Motivation; job satisfaction; fulfillment; loyalty; value; trust; recognition; organizational identification; safety; reduction of emotional exhaustion; stress	<p>Gabrani et al. (2016), Beck-Krala et al. (2017), Peluso et al. (2017), Siahhan (2017), Victor and Hoole (2017), Bwowe and Marongwe (2018), Elmadağ and Ellinger (2018), Oravee et al. (2018), Pinho et al. (2018), Santos et al. (2019), Tamaschiro et al. (2019), Bogtevic-Miljkic and Dosenovic (2020), Hareendrakumar et al. (2020), Jayawardena and Jayawardena (2020), Abdullah et al. (2021), Alrazehi et al. (2021), Ji and Cui (2021), Kumari et al. (2021), Mabaso et al. (2021), Manzoor et al. (2021), Baig et al. (2022), Beqiri and Aziri (2022), Hassan (2022), Kamsalem et al. (2022), Leitão et al. (2022), Lin et al. (2022), Mulyaningsih et al. (2022), Nemţeanu et al. (2022), Ngamkroekjoti et al. (2022), Tarigan et al. (2022), Tsai (2022)</p>

of articles, in part, due to the range year that was determined. In the future, it becomes evident the need to carry out new research, updating the range year, in order to obtain a greater spectrum of studies. In general, scientific production on the reward system is scarce. In this sense, it is equally important to encourage empirical research that shows the influence of the practice of reward systems in business context.

## Agenda for Future Research

Putting aside these limitations, this study offered a comprehensive view of the rewards philosophy, considering it as a dynamic and strategic resource, which should be understood as a potential tool to be explored. The reward system can be considered bilateral, since the company itself is also rewarded, because when the plan is properly designed and structured, the company becomes more productive and sustainable, with a guarantee of greater profits. This research highlights the importance of understanding the benefits of reward systems on issues such as employee satisfaction, motivation, performance, creativity, commitment, and retention. Moreover, the results allow managers to design incentive and policy programs to enhance employee efficiency and productivity, aiming for a more sustainable company. Through a theoretical basis, this systematic review of the literature was intended to offer a starting point for new research and reflections on reward systems. Complementarily, in Fig. 5, the authors present a set of directions for future research. For this purpose, it is possible to analyze several theoretical approaches, target samples, methodology, as well as different levels of impact.

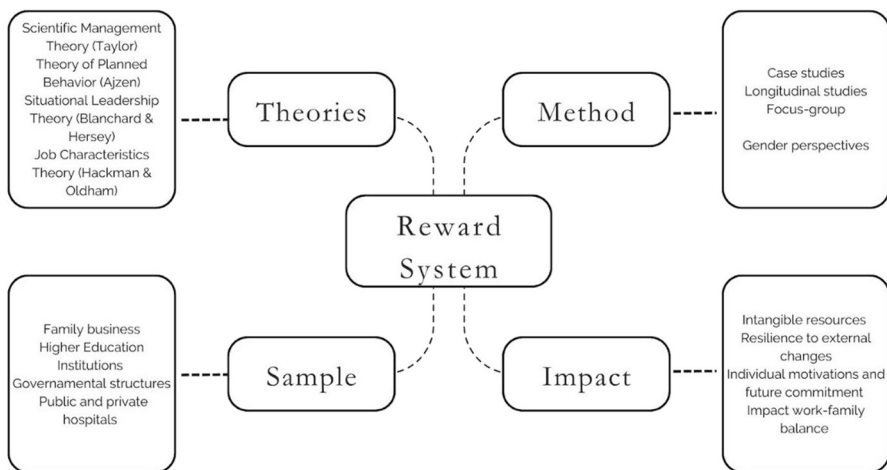


Fig. 5 Guidelines for future research

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s13132-024-02492-w>.

**Funding** Open Access funding provided thanks to the CRUE-CSIC agreement with Springer Nature.

## Declarations

**Competing Interests** The authors declare no competing interests.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## References

- Abasili, F. N., Bambale, A. J., & Aliyu, M. S. (2017). The effect of reward on employee performance in Kano State Board of Internal Revenue. *Int J Global Bus*, 10(2), 1–16.
- Abdullah, M. I., Huang, D., Sarfraz, M., & Sadiq, M. W. (2021). Service innovation in human resource management during COVID-19: A study to enhance employee loyalty using intrinsic rewards. *Frontiers in Psychology*, 12, 627659. <https://doi.org/10.3389/fpsyg.2021.627659>
- Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422–436. <https://doi.org/10.1037/h0040968>
- Adebanji, A., Peter, F., Uwagwe, B., Olojede, I., Fayemi, G., Ajagbe, G., & Osazuwa, M. (2022). Dimension of reward system on employees' commitment: A tertiary institution view. *Journal of Management Information and Decision Sciences*, 25(6), 1–13.
- Adeoye, A. O., & Obanewo, J. F. (2019). Impact of reward system and fringe benefits on job satisfaction: Empirical evidence from Nigeria. *Eco Manag*, 1, 7–17.
- Admassie, G. A. (2019). Impact of rewards management system on employees' satisfaction in case of Debre Birhan University Administrative Staffs. *Journal of Investment and Management*, 8(1), 16–24. <https://doi.org/10.11648/j.jim.20190801.13>
- Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Prentice-Hall.
- Akerlof, G. A. (1984). Gift Exchange and Efficiency Wage Theory: Four Views. *The American Economic Review*, 74, 79–83.
- Alberton, M. M., & Carvalho, L. C. (2017). Práticas de recursos humanos que influenciam na criatividade dos funcionários. *Future Studies Research Journal: Trends & Strategies*, 9(2), 61–87. <https://doi.org/10.24023/futurejournal/2175-5825/2017.v9i2.306>
- Alderfer, C. P. (1969). An empirical test of a new theory of human needs. *Org Behav & Hum Perf*. [https://doi.org/10.1016/0030-5073\(69\)90004-X](https://doi.org/10.1016/0030-5073(69)90004-X)
- Alhmod, A., & Rjoub, H. (2019). Total rewards and employee retention in a Middle Eastern context. *SAGE Open*, 9(2), 1–13. <https://doi.org/10.1177/2158244019840118>
- Almeida, F. N. (2019). *Retribuições, prémios e incentivos*. Lisboa: Almedina.
- Alrazehi, H.A.A.-W., Amirah, N. A., & Emam, A. S. M. (2021). The mediation effect of job satisfaction between reward system and training and development on employee retention in Yemen's banking sector. *International Journal of Innovative Research and Scientific Studies*, 4(4), 215–228. <https://doi.org/10.53894/ijriss.v4i4.100>
- Baig, S. A., Rehman, M. Z. U., Naz, A., & Jamil, K. (2022). High core self-evaluation maintains patient oriented behavior: A motivational model of reward system. *J Pub Affairs*, 22(2), 1–11. <https://doi.org/10.1002/pa.2488>

- Bandura, A., & Walters, R. H. (1977). *Social Learning Theory*. Prentice-Hall.
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*. <https://doi.org/10.1177/014920639101700108>
- Beck-Krala, E., Tarczoń, E., & Masłyk, T. (2017). Employee satisfaction with tangible and intangible rewards in health care sector. *Polish Journal of Management Studies*, 16(2), 17–27. <https://doi.org/10.17512/pjms.2017.16.2.02>
- Beqiri, T., & Aziri, B. (2022). Impact of the total reward management on performance of employees in commercial banks. *Management: Journal of Contemporary Management Issues*, 27(1), 323–335. <https://doi.org/10.30924/mjcmi.27.1.18>
- Blain, B., Pinhorn, I., & Sharot, T. (2023). Sensitivity to intrinsic rewards is domain general and related to mental health. *Nature Mental Health*, 1, 679–691. <https://doi.org/10.1038/s44220-023-00116-x>
- Bogicevic-Milikic, B., & Dosenovic, D. (2020). Moderators of the relationship between intrinsic reward and job satisfaction: The evidence from the Republic of Srpska. *Socio*, 62(3), 416–437. <https://doi.org/10.2298/SOC2003416B>
- Boselie, P. (2010). *Strategic human resource management*. McGraw-Hill.
- Bwowe, P. W., & Marongwe, N. (2018). Implementing a total reward strategy in selected South African municipal organisations. *South African J Hum Res Manag*, 16(1), 1–9. <https://doi.org/10.4102/sajhrm.v16i0.927>
- Camara, P. B. (2021). *Os sistemas de recompensas e a gestão estratégica de recursos humanos*. Lisboa: Dom Quixote.
- Camara, P. B., Guerra, P. B., & Rodrigues, J. V. (2013). *Humanator XXI: Recursos humanos e sucesso empresarial*. Lisboa: D. Quixote.
- Cerasoli, C. P., Nicklin, J. M., & Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psy Bull*, 140(4), 980–1008. <https://doi.org/10.1037/a0035661>
- Chang, W. J., Liao, S. H., & Wu, T. T. (2017). Relationships among organizational culture, knowledge sharing, and innovation capability: A case of the automobile industry in Taiwan. *Knowledge Management Research & Practice*, 15, 471–490. <https://doi.org/10.1057/s41275-016-0042-6>
- Chen, Y., Zhang, Z., Zhou, J., Liu, C., Zhang, X., Yu, T. (2023). A cognitive evaluation and equity-based perspective of pay for performance on job performance: A meta-analysis and path model. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1039375>
- Chiavenato, I. (2008). *Gestão de pessoas*. Elsevier.
- Cormican, K., Meng, C., Sampaio, S., & Wu, Q. (2021). Towards sustainable knowledge sharing practices: An analysis of organizational level enablers. *Sustain*, 13(23), 12934. <https://doi.org/10.3390/su132312934>
- Coutinho, C. P. (2011). *Metodologia de investigação em ciências sociais e humanas: Teoria e prática*. Coimbra: Almedina.
- Cunha, M. P., Rego, A., Cunha, R. C., Cardoso, C. C., & Neves, P. (2016). *Manual de comportamento organizacional e gestão*. Lisboa: Editora RH.
- Drucker, P. F. (1994). *Gerindo o futuro*. Lisboa: Difusão Cultural.
- Dutra, J. S. (2002). *Gestão de pessoas: Modelo, processos, tendências e perspectivas*. São Paulo: Atlas.
- Eisenberger, R. (1992). Learned industriousness. *Psyc Rev*. <https://doi.org/10.1037/0033-295X.99.2.248>
- Elmadag, A. B., & Ellinger, A. E. (2018). Alleviating job stress to improve service employee work affect: The influence of rewarding. *Service Business*, 12(1), 121–141. <https://doi.org/10.1007/s11628-017-0340-y>
- Eneh, S. I., Augustine, E. A., Anyadighibe, J. A., Okongo, J. N., Enuoh, R. O., & Jamie, P. G. (2022). Extrinsic reward and employee performance in cement manufacturing firms in South-South, Nigeria. *J Manag Info Dec Scie*, 25(5), 1–16.
- Ferreira, D., Baidya, T. K. N., & de Freitas, A. S. (2018). The relationship between systems of compensation and motivation: A study in the Federal University of Tocantins (UFT). *ETD Educ Tem Dig*, 20(1), 27–48. <https://doi.org/10.20396/etd.v20i1.8646436>
- Fortin, M. F. (2009). *O processo de investigação: Da concepção à realização*. Lisboa: Lusodidacta.
- Foss, N. J., Pedersen, T., Reinholt Fosgaard, M., & Stea, D. (2015). Why complementary HRM practices impact performance: The case of rewards, job design, and work climate in a knowledge-sharing context. *Hum Reso Manag*, 54(6), 955–976. <https://doi.org/10.1002/hrm.21649>
- Gabrani, A., Hoxha, A., Gabrani, C. J., Petrela, Z. E., Zaimi, E., & Avdullari, E. (2016). Perceived organizational commitment and job satisfaction among nurses in Albanian public hospitals: A cross-sectional study. *Int J Healthcare Manag*, 9(2), 110–118. <https://doi.org/10.1179/2047971915Y.0000000019>

- Gal, Y., & Hadas, E. (2015). Why projects fail: Knowledge worker and the reward effect. *J Know Eco*, 6, 698–977. <https://doi.org/10.1007/s13132-013-0168-1>
- Garbers, Y., & Konradt, U. (2014). The effect of financial incentives on performance: A quantitative review of individual and team-based financial incentives. *Jo Occup Org Psy*, 87, 102–137. <https://doi.org/10.1111/joop.12039>
- Ghose, S. K., & Mohanty, P. K. (2016). Innovative recognition and reward strategy as a tool for employee engagement: An empirical study on private retail banking in Odisha. *Int J Res Comm Manag*, 7(3), 8–10.
- Gov O (2015) The complex relationship between intrinsic and extrinsic rewards. *Economics and Business Review*, 1(4):102–125. <https://doi.org/10.18559/ebr.2015.4.7>
- Harandi, A., Khamseh, P. M., Sana, S. S. (2024). Ambidextrous leadership: an emphasis on the mediating role of knowledge sharing and knowledge search. *Annals of Operations Research*, <https://doi.org/10.1007/s10479-024-06103-4>
- Hareendrakumar, V. R., Subramoniam, S., & Nizar Hussain, M. (2020). Redesigning rewards for improved fairness perception and loyalty. *Vision*, 24(4), 481–495. <https://doi.org/10.1177/0972262920946142>
- Hassan, Z. (2022). Employee retention through effective human resource management practices in Maldives: Mediation effects of compensation and rewards system. *J Entrep Manag Innov*, 18(2), 137–173. <https://doi.org/10.7341/20221825>
- Herzberg, F. (1968). One more time: How do you motivate employees? *Harvard Bus Rev*.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*. <https://doi.org/10.1037/0003-066X.44.3.513>
- Hoole C, Hotz G (2016) The impact of a total reward system of work engagement. *SA Journal of Industrial Psychology*, 42(1). <https://doi.org/10.4102/sajip.v42i1.1317>
- Jayawardena, N. S., & Jayawardena, D. (2020). The impact of extrinsic and intrinsic rewarding system on employee motivation in the context of Sri Lankan apparel sector. *Int J Bus Exc*, 20(1), 51–69. <https://doi.org/10.1504/IJBEX.2019.10017100>
- Jesus, S. N., & Viseu, J. (2020). Motivação no trabalho. In A. Caetano, J. G. Neves, & J. M. C. Ferreira (Eds.), *Psicossociologia das organizações: Fundamentos e aplicações* (pp. 161–177). Lisboa: Sílabo.
- Ji, D., & Cui, L. (2021). Relationship between total rewards perceptions and work engagement among Chinese kindergarten teachers: Organizational identification as a mediator. *Front Psy*, 12, 1–8. <https://doi.org/10.3389/fpsyg.2021.648729>
- Kamselem, K. M., Nuhu, M. S., Lawal, K. A. A., Liman, A. M., & Abdullahi, M. S. (2022). Testing the nexus between reward system, job condition and employee retention through intervening role of employee engagement among nursing staff. *Arab Gulf J Scie Res*, 40(1), 34–53. <https://doi.org/10.1108/AGJSR-05-2022-0061>
- Kaushal, S., Nyoni, A. M. (2022). Why do rewards fail to motivate knowledge sharing behavior among employees?. *VINE Journal of Information and Knowledge Management Systems*, <https://doi.org/10.1108/VJKMS-06-2022-0202>
- Kim, N., & Hang, N. (2024). Rewards, knowledge sharing and individual work performance: An empirical study. *Cog Bus Manag*, 11(1), 2359372. <https://doi.org/10.1080/23311975.2024.2359372>
- Koo, B., Yu, J., Chua, B.-L., Lee, S., & Han, H. (2020). Relationships among emotional and material rewards, job satisfaction, burnout, affective commitment, job performance, and turnover intention in the hotel industry. *Journal of Quality Assurance in Hospitality & Tourism*, 21(4), 371–401. <https://doi.org/10.1080/1528008X.2019.1663572>
- Kumari, K., Ali, S. B., Khan, N. N., & Abbas, J. (2021). Examining the role of motivation and reward in employees' job performance through mediating effect of job satisfaction: An empirical evidence. *International Journal of Organization Leadership*, 10, 401–420. <https://doi.org/10.33844/ijol.2021.60606>
- Lan, Z., Li, S., Chen, L. (2024). Enhancing a business recommendation system: leveraging blockchain technology with a differentiated scoring incentive mechanism. *Journal of the Knowledge Economy*, <https://doi.org/10.1007/s13132-024-01812-4>
- Leitão, M., Correia, R. J., Teixeira, M. S., & Campos, S. (2022). Effects of leadership and reward systems on employees' motivation and job satisfaction: An application to the Portuguese textile industry. *J Strat Manag*, 15(4), 590–610. <https://doi.org/10.1108/JSMA-07-2021-0158>
- Lin, C., Shipton, H., Teng, W., Kitt, A., Do, H., & Chadwick, C. (2022). Sparking creativity using extrinsic rewards: A self-determination theory perspective. *Hum Res Manag*, 61(6), 723–735. <https://doi.org/10.1002/hrm.22128>


- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1349). Rand McNally.
- Lopes, A. (2017). *Fundamentos da gestão de pessoa: Para uma síntese epistemológica da iniciativa, da competição e da cooperação*. Lisboa: Sílabo.
- Mabaso, C. M., Maja, M. T., Kavir, M., Lekwape, L., Makhasane, S. S., & Khumalo, M. T. (2021). Talent retention strategies: An exploratory study within the consulting industry in Gauteng province South Africa. *Acta Commercii*, 21(1), 1–14. <https://doi.org/10.4102/ac.v21i1.885>
- Manzoor, F., Wei, L., & Asif, M. (2021). Intrinsic rewards and employee's performance with the mediating mechanism of employee's motivation. *Front Psy*, 12, 1–13. <https://doi.org/10.3389/fpsyg.2021.563070>
- Marques, C. A., & Cunha, M. P. (2000). *Comportamento organizacional e gestão de empresas*. Lisboa: Dom Quixote.
- Martin-Perez, V., & Martin-Cruz, N. (2015). The mediating role of affective commitment in the rewards–knowledge transfer relation. *J Know Manag*, 19(6), 1167–1185. <https://doi.org/10.1108/JKM-03-2015-0114>
- Martono, S., Khoiruddin, M., & Wulansari, N. A. (2018). Remuneration reward management system as a driven factor of employee performance. *Int J Bus Soc*, 19(4), 535–545.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*. <https://doi.org/10.1037/h0054346>
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*. [https://doi.org/10.1016/S1053-4822\(00\)00053-X](https://doi.org/10.1016/S1053-4822(00)00053-X)
- Mulyaningsih, Susilawati W., & Ardiati, R. L. (2022). Understanding employee satisfaction in the public sector: Examining the role of communication style, individual initiative, and reward systems. *Int J Pub Pol Admin Res*, 9(4), 79–89. <https://doi.org/10.18488/74.V9I4.3205>
- Muzafary, S. S., Wahdat, M. N., Hussain, M., Mdletshe, B., Tilwani, S. A., Khattak, R. (2021). Intrinsic rewards for creativity and employee creativity to the mediation role of knowledge sharing and intrinsic motivation. *Education Research International*, 2021. <https://doi.org/10.1155/2021/6464124>
- Nascimento, R. F., Canteri, M. H. G., & Kovalski, J. L. (2019). Impacto dos sistemas de recompensas na motivação organizacional: Revisão sistemática pelo método PRISMA. *Rev Gest Cone*, 8(2), 44–58. <https://doi.org/10.13071/regeg.2317-5087.2019.8.2.23541.44-58>
- Nazir, S., Shafi, A., Qun, W., Nazir, N., & Tran, Q. D. (2016). Influence of organizational rewards on organizational commitment and turnover intentions. *Emp Rel*, 38(4), 596–619. <https://doi.org/10.1108/ER-12-2014-0150>
- Nemţeanu, M., Dinu, V., Pop, R-A., Dabija, D-C. (2022). Predicting job satisfaction and work engagement behavior in the COVID-19 pandemic: A conservation of resources theory approach. *E a M: Ekon Manag*, 25(2):23–40. <https://doi.org/10.15240/tul/001/2022-2-002>
- Neves, A. L. (1998). *Motivação para o trabalho*. Lisboa: Editora RH.
- Ngamkroekjoti, C., Klongthong, W., Thavorn, J. (2022). Motivational factors influencing telework during the COVID-19 Pandemic. *Emerging Science Journal*, 6:229–246. <https://doi.org/10.28991/esj-2022-SPER-016>
- Nguyen, T. M., & Malik, A. (2020). Cognitive processes, rewards and online knowledge sharing behaviour: The moderating effect of organisational innovation. *J Know Manag*, 24(6), 1241–1261. <https://doi.org/10.1108/JKM-12-2019-0742>
- Ngwa, W. T., Adeleke, B. S., Agbaeze, E. K., Ghasi, N. C., & Imhanrenialena, B. O. (2019). Effect of reward system on employee performance among selected manufacturing firms in the Litoral Region of Cameroon. *Acad Strat Manag J*, 18(3), 1–16.
- Nunes, F., & Vala, J. (2007). Cultura organizacional e gestão de recursos humanos. In A. Caetano & J. Vala (Eds.), *Gestão de recursos humanos: Contextos, processos e técnicas* (pp. 121–149). Lisboa: Editora RH.
- Okpebholo, E., & Sheikh, A. Z. (2020). Optimization of non-monetary reward provisions: Evidence from the UK banking sector. *IBA Business Review*, 15(1), 1–18. <https://doi.org/10.54784/1990-6587.1000>
- Onu, C., Lawal, B., Egbuta, O., Egwuonwu, C., Ayeni, D., & Soetan, T. (2022). Exploring the effect of cash bonuses on employees' innovativeness and creativity in the Nigerian banking sector. *International Journal of Management and Sustainability*, 11(4), 248–257. <https://doi.org/10.18488/11.v11i4.3227>

- Oravee, A., Zayum, S., & Kokona, B. (2018). Job satisfaction and employee performance in Nasarawa State Water Board, Lafia Nigeria. *Cimexus*, 13(2), 59–70. <https://doi.org/10.33110/cimexus130204>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *bmj*, 372. <https://doi.org/10.1016/j.ijisu.2021.105906>
- Peluso, A. M., Innocenti, L., & Pilati, M. (2017). Pay is not everything: Differential effects of monetary and non-monetary rewards on employees' attitudes and behaviours. *Evidence-Based HRM*, 5(3), 311–327. <https://doi.org/10.1108/EBHRM-07-2015-0031>
- Pham, H. M., Le, T. T. H., Dang, L. H., & Nguyen, L. T. (2024). The impact of reward system on talented employees' performance in Vietnamese commercial banks: Mediating role of job satisfaction. *J Fin Serv Mark*, 29, 1099–1114. <https://doi.org/10.1057/s41264-023-00261-5>
- Pinho, M. G., Baidya, T. K. N., Dalbem, M. C., & Salvino, E. H. S. (2018). A política de recompensa e promoção influencia a motivação do trabalhador? *Rev Elet Ciê Admin*, 17(3), 395–409. <https://doi.org/10.21529/RECADM.2018016>
- Ryan, R. M., Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Saad, M. M., Gaber, H. R., Labib, A. A. (2021). Investigating the impact of human resource management practices on employee engagement, and the moderating role of strategy implementation in Egypt. *SA Journal of Human Resource Management*, 19 <https://doi.org/10.4102/SAJHRM.V19I0.1412>
- Salman, A., & Olawale, Y. A. (2021). Effect of reward system on employees' productivity: A study of guaranty trust bank Ilorin Metropolis. *J Manag Soc Sci*, 10(3), 1128–1143.
- Sampaio, R. F., & Mancini, M. C. (2007). Estudos de revisão sistemática: Um guia para síntese criteriosa da evidência científica. *Rev Bras Fisio*, 11(1), 83–89. <https://doi.org/10.1590/S1413-35552007001000013>
- Santos, V., Beuren, I. M., & Issifou, M. (2019). Efeitos da avaliação do desempenho na performance gerencial mediada pelo feedback e sistema de recompensas. *Rev Cont Gest Gov*, 22(1), 38–58. [https://doi.org/10.51341/1984-3925\\_2019v22n1a3](https://doi.org/10.51341/1984-3925_2019v22n1a3)
- Sarpong, S. A., Akom, M. S., Kusi-Owusu, E., Ofosua-Adjei, I., & Lee, Y. (2021). The role of commitment in the relationship between components of organizational culture and intention to stay. *Sust*, 13(9), 5151. <https://doi.org/10.3390/su13095151>
- Serhan, C., Salloum, W., & Abdo, N. (2021). How reward systems affect team performance in banks: Evidence from the Middle East and North Africa (MENA) region. *Team Perf Manag*, 27(5/6), 446–465. <https://doi.org/10.1108/TPM-03-2021-0022>
- Shaheen, K., Waheed, A., Hashmi, W. (2020). Extrinsic rewards and creative performance syndrome: The mediating mechanism and interacting effects. *Think Skills Creat*, 38. <https://doi.org/10.1016/j.tsc.2020.100713>
- Siahaan, E. (2017). Antecedents of employee performance and the influence on employee job satisfaction in banking service sector in Indonesia. *Banks and Bank Systems*, 12(4), 75–89. [https://doi.org/10.21511/bbs.12\(4\).2017.07](https://doi.org/10.21511/bbs.12(4).2017.07)
- Silva, M. S., Mendes, A. C. A., Beuren, I. M., Lunkes, R. J., & Kruger, S. D. (2022). Assessing the moderating and mediating role of affective commitment and procedural fairness in the relationship between rewards and job performance. *Revista de Educação e Pesquisa em Contabilidade*, 16(2), 103–123. <https://doi.org/10.17524/repec.v16i2.3079>
- Skinner, B. F. (1958). Reinforcement today. *American Psychologist*. <https://doi.org/10.1037/h0049039>
- Sotomayor, A. M., Rodrigues, J., & Duarte, M. (2014). *Princípios de gestão das organizações*. Sintra: Rei dos Livros.
- Sousa, M. J., Duarte, T., Sanches, P. G., & Gomes, J. (2006). *Gestão de recursos humanos: Métodos e práticas*. Lisboa: Lidel.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. SAGE Publications.
- Taba, I. M. (2018). Mediating effect of work performance and organizational commitment in relationship between reward system to employees' work satisfaction. *Journal of Management Development*, 1–11. <https://doi.org/10.1108/JMD-11-2016-0256>
- Tamaschiro, H. R. S., Neri, J. M. C., Nascimento, C. A. X., Ferreira, V. A. M., & Jabur, M. R. M. (2019). Uma análise da relação entre práticas de recompensas, comprometimento organizacional, motivação e satisfação dos funcionários nas organizações. *Rev Admin Unimep*, 17(4), 138–158.

- Tănăsescu, C.-E., & Leon, R.-D. (2019). Human resources practices in the Romanian banking system: Rewards, job satisfaction, and job performance. *Manag Dyn Know Econ*, 7(4), 469–483. <https://doi.org/10.25019/MDKE/7.4.02>
- Tarigan, J., Cahya, J., Valentine, A., Hatane, S., & Jie, F. (2022). Total reward system, job satisfaction and employee productivity on company financial performance: Evidence from Indonesian Generation Z workers. *J Asia Bus Stud*, 16(6), 1041–1065. <https://doi.org/10.1108/JABS-04-2021-0154>
- Teixeira, S. (2013). *Gestão das organizações*. Forte de Casa: Escolar Editora.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. John Wiley.
- Tsai, H.-Y. (2022). The role of job insecurity in emotional exhaustion and work engagement during the COVID-19 pandemic: The moderating effect of organizational reward and care policies. *Int J Soc Psy*, 37(1), 1–32. <https://doi.org/10.1080/02134748.2021.1992887>
- Victor, J., & Hoole, C. (2017). The influence of organisational rewards on workplace trust and work engagement. *South African J Hum Res Manag*, 15(1), 1–14. <https://doi.org/10.4102/sajhrm.v15i0.853>
- Vroom VH (1964) Work and motivation. Wiley.
- Wang, L., & Kim, K. (2024). Fostering knowledge exchange in digital communities: Psychological determinants of sharing in Q&A platforms. *J Know Eco*. <https://doi.org/10.1007/s13132-024-01929-6>
- Wood, T., & Picarelli, V. (1996). *Remuneração estratégica: A nova vantagem competitiva*. São Paulo: Editora Atlas.
- Whitaker, J. (1974). The Marshallian System in 1881: Distribution and Growth. *The Economic Journal*, 84(333), 1–17. <https://doi.org/10.2307/2230480>
- Zhang, J., Jehangir, F. N., Yang, L., Tahir, M. A. (2024). Competitive advantage and firm performance: The role of organizational culture, organizational innovation, and knowledge sharing. *Journal of Knowledge Economics*, <https://doi.org/10.1007/s13132-024-01910-3>
- Zhao, R., Feng, N., Wei, F., & Wang, Y. (2022). Rewards and knowledge sharing in the CoPS development context: The moderating role of transformational leadership. *Journal of Knowledge Management*. <https://doi.org/10.1108/JKM-10-2021-0780>

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

## Authors and Affiliations

Elisabeth Figueiredo<sup>1</sup> · Clara Margaça<sup>1,3</sup>  · José Carlos Sánchez García<sup>1</sup> · Célia Ribeiro<sup>2</sup>

✉ Clara Margaça  
claramargaca@usal.es

Elisabeth Figueiredo  
efigueiredo@usal.es

José Carlos Sánchez García  
jsanchez@usal.es

Célia Ribeiro  
cribeiro@ucp.pt

<sup>1</sup> Department of Social Psychology and Anthropology, University of Salamanca, Avenida de La Merced 109, 37005 Salamanca, Spain

<sup>2</sup> Institute of Management and Health Organizations, Portuguese Catholic University, Estrada da Circunvalação, 3504-505 Viseu, Portugal

<sup>3</sup> Faculty of Economic, Social and Business Sciences, Lusófona University, Porto University Center, Rua Augusto Rosa 24, 4000-098 Porto, Portugal