Human resource management in e-commerce in the Republic of Kazakhstan

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Abstract

The purpose of this article is to provide a comprehensive analysis of human resource management in the field of e-commerce in Kazakhstan. The main importance of this research is to offer innovative ideas and expand knowledge in this field, which is actively developing in the digital economy. By considering current trends, problems, and possible solutions, research becomes a valuable resource for both the academic community and industry professionals and leaders. A review of the literature of domestic and foreign authors on e-commerce and personnel management is presented. The features and directions of human resource development are studied, taking into account the requirements of the digital environment and the need to adapt digital solutions to various areas of professional practice. Examples of successful human resource management are given and recommendations are given to address these issues. As a result of the analysis, recommendations have been identified that are proposed to be used for human resource management in the context of e-commerce in Kazakhstan. The article is based on secondary data. A bibliometric analysis was conducted to study the most frequently used keywords in the SCOPUS database on the research topic, in order to identify trends and analyze recent research in the field of e-commerce and human resource management. The scientific works of the authors from the sources Web of Science, ResearchGate and Google Scholar were analyzed.

Keywords: e-commerce, marketplace, human resources, online shopping, marketplaces, online platforms, e-commerce channels, online shoppers, staff

Қазақстан Республикасындағы электрондық коммерциядағы адам ресурстарын басқару

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Түйін

Мақаланың мақсаты Қазақстандағы электрондық коммерция саласындағы адам ресурстарын басқарудың жан-жақты талдауын ұсыну болып табылады. Зерттеудің негізгі мәні цифрлық экономика жағдайында белсенді дамып келе жатқан осы саладағы инновациялық идеяларды ұсыну және білімді кеңейту. Ағымдағы тенденцияларды, мәселелерді және ықтимал шешімдерді қарастыра отырып, зерттеу академиялық қауымдастық үшін де, кәсіпқойлар мен сала жетекшілері үшін де құнды ресурсқа айналады. Электрондық коммерция және персоналды басқару мәселелері бойынша отандық және шетелдік авторлардың әдебиеттеріне шолу жасалды. Цифрлық ортаның талаптарын және цифрлық шешімдерді кәсіптік практиканың әртүрлі салаларына бейімдеу қажеттілігін ескере отырып, адам ресурстарын дамытудың ерекшеліктері мен бағыттары зерттелді. Адам ресурстарын сәтті басқарудың мысалдары келтірілді және осы мәселелерді шешу бойынша ұсыныстар берілді. Анализ нәтижесінде Қазақстандағы электрондық коммерция контекстінде адам ресурстарын басқару бойынша ұсыныстар қарастырылды. Мақала екінші деректерге негізделген. Электрондық коммерция және адам ресурстарын басқару саласындағы соңғы зерттеулердің тенденцияларын анықтау және талдау мақсатында зерттеу тақырыбы бойынша SCOPUS дерекқорында жиі қолданылатын кілт сөздерді зерттеу үшін библиометриялық талдау жүргізілді. Web of Science, ResearchGate және Google Scholar дереккөздеріндегі авторлардың ғылыми жұмыстары талданды.

Кілттік сөздері: электрондық коммерция, нарық, адам ресурстары, онлайн сауда, сауда платформалары, онлайн платформалар, электрондық коммерция арналары, онлайн сатып алушылар, қызметкерлер

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Управление человеческими ресурсами в электронной коммерции в Республике Казахстан

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Аннотация

Цель данной статьи заключается в предоставлении всестороннего анализа управления человеческими ресурсами в сфере электронной коммерции в Казахстане. Основное значение этого исследования состоит в предложении инновационных идей и расширении знаний в данной области, которая активно развивается в условиях цифровой экономики. Рассматривая текущие тенденции, проблемы и возможные решения, исследование становится ценным ресурсом как для академического сообщества, так и для профессионалов и лидеров отрасли. Представлен обзор литературы отечественных и зарубежных авторов по вопросам электронной коммерции и управления персоналом. Изучены особенности и направления развития человеческих ресурсов с учетом требований цифровой среды и необходимости адаптации цифровых решений к различным областям профессиональной практики. Приведены примеры успешного управления человеческими ресурсами и даны рекомендации по решению данных вопросов. В результате анализа выявлены рекомендации, которые предлагается использовать для управления человеческими ресурсами в контексте электронной коммерции в Казахстане. Статья основана на вторичных данных. Проведен библиометрический анализ для изучения наиболее часто используемых ключевых слов в базе данных SCOPUS по теме исследования, с целью выявления тенденций и анализа последних исследований в области электронной коммерции и управления человеческими ресурсами. Были проанализированы научные работы авторов из источников Web of Science, ResearchGate и Google Scholar.

Ключевые слова: электронная коммерция, рынок, человеческие ресурсы, интернет-покупки, торговые площадки, онлайн-платформы, каналы электронной коммерции, интернет-покупатели, персонал

Introduction

The emergence of the digital age has brought significant changes to our lives, affecting almost every aspect of it. One of the significant changes that has attracted the attention of decision-makers and economic actors is the development of e-commerce. It is developing rapidly and becoming a key player in the modern global and domestic economy. E-commerce covers a wide range of commercial activities, ranging from the sale of consumer goods to the provision of online services through digital platforms. This sector has not only changed the way companies interact with customers but has also had a significant impact on human resource management in this area. The digital revolution has changed traditional business models, creating new opportunities and new and unique challenges, such as managing human resources in this industry. E-commerce as a way of using the latest information technologies and the Internet is currently becoming the most important direction for the further development of trade operations. Today, e-commerce is developing at an active pace all over the world through the introduction of digital technologies in various spheres of life. In modern economic realities, the digitalization process is rapidly penetrating an individual's life and its individual functional areas into the business environment. These areas of activity also include the human resource management system. The emergence of online marketplaces and trading platforms has created new jobs and new regions for hiring new staff. This contributes to increased competition between companies and people who work in this field.

The primary purpose of this article is to identify critical trends in the field of human resource management in the context of e-commerce. Human resource management has always been one of the most rapidly developing areas of management. Company executives understand the need to introduce new management methods to increase the efficiency of using intangible assets. E-commerce poses challenges and provides a wide range of new HR solutions [1]. The relevance of the presented material is confirmed by the small number of foreign and domestic publications that comprehensively address the problem of human resource management in digital economies.

The scientific novelty of this article lies in its focus on human resource management in the field of e-commerce. The article provides an analysis of current problems faced by companies in this industry, such as low material motivation of employees, problems of remote work, high staff turnover, and a shortage of qualified specialists. The authors offer several recommendations and strategies to address these problems based on their own research and analysis of existing data. This approach not only helps to better understand the complexities of HR management in the e-commerce industry, but also offers concrete practical steps to improve the situation in this area. This article makes a significant contribution to the field of human resource management research by enriching our understanding of the specific nature of e-commerce work and offering valuable guidance to professionals and scholars in the field.

The article is structured as follows: the research problem, followed by a literature review, a description of the methodology, discussions and conclusions, at the end of the article the contribution and conclusions of the article will be presented.

Research problems

This article is devoted to human resource management in e-commerce. By contributing to the theoretical literature of science, the results of the analytical review can serve as a basis for further research, and the developed recommendations can become the basis for adaptation taking into account the needs of the scientific environment of Kazakhstan. Potentially significantly affect the problem of the shortage of qualified employees and their management in the scientific environment.

Literature review

As a result of the rapid development and influence of e-commerce on the global economy and the economy of Kazakhstan, there is a great demand for human resources, which causes great interest in science, as well as interest from world and domestic scientists in this topic. In the context of the digital age, the impact of e-commerce on the global economy is becoming more significant. Becoming an essential component of the modern economy, e-commerce has changed how businesses interact with their customers and caused serious upheavals in the global economy and human resource management. With the relentless development of technology, the need for human resource development has increased significantly along with the changing demands of the market and society. Forming the most critical resource in e-commerce requires increasing investments of various kinds.

At the same time, both contradictions in the use of human resources and the rate of devaluation of human capital are increasing, which leads to the assumption that the ongoing progress of technologies affecting the development of human resources is rapidly devaluing them, which causes many problems in the process of their use [2]. The impact of technological progress on human resource management became an object of economic research long before digitalization. Gerlind [3], in his works, pointed out the duality of a close relationship: technological changes contribute to both the creation and elimination of jobs. In modern conditions, the development of robotics and artificial intelligence will lead not only to the elimination of some professions but also to a significant change in the structure of labor demand, which requires a review of the entire educational policy, as well as making appropriate changes to the human resource management system [4]. In addition to manual labor, automation affects many cognitive jobs, primarily those related to performing standard operations, particularly in the service sector [5]. The innovative potential of human resource management ensures the management of personnel with the help of progressive resources and skills available to people. Using the creative activity of employees, the company has the opportunity to increase its influence on markets in the future [6].

The assessment of the level of human resources involves several areas of research: scientific skills, technical skills, social skills, and the ability to work with information (including digital) [7]. The development of the economy is taking place with new technologies and products that people create. Specialists should improve their professional skills, and digital tools can help them do this. Kruglov, in his works, touched upon the impact of digital technologies on the quality of human resources. In addition to

routine everyday tasks, specialists need to develop their creative and professional potential. Digital technologies make it possible to replace routine operations that were previously performed by staff [8].

Sayfullina studied human capital management in the system of digital economic relations. Digital knowledge and information are related to the fact that the circumstances causing the appearance of this resource are specific to the employee. For example, employees can integrate new knowledge, develop new ideas, and use human resources more efficiently and intelligently [9].

Lyaskovskaya and Kozlov, in their study, consider the problem of matching human resources to digital competencies and selecting the necessary number of human resources [10]. To solve this problem, scientists propose introducing artificial intelligence methods into the personnel competitiveness management system and implementing digital technologies in the functions of the human resource management system to complete the company's main stages of human resource development. According to Grudistova, in addition to knowledge, skills, and abilities acquired in educational institutions, individual psychological characteristics, communication skills, and digital competencies are also required; the ability to interact with other market actors in a digital environment, which emphasizes the need to identify the skills needed by managers [11].

Molotkova and Khazanova, in their research, focus on the transformation of the structure of digital human capital management, emphasizing the need to find specialists in this field who have an innovative vision of the process of digitization of the management system, the formation of new qualitative requirements for personnel, and the specification of requirements for the skills of employees of the company [12]. Krasnikova, in her work, examines the areas of human resource management, which have the potential for the development of digital human resources management in e-commerce, which include the main functions of the human resource management system [13].

Summarizing the information above, the development of e-commerce has had a significant impact on the global economy, including the economy of Kazakhstan. This process causes an increase in demand for qualified personnel, which attracts the attention of both scientists and practitioners. Technological advances are not only changing how businesses interact with customers but are also leading to significant changes in human resource management. This requires increased investment and a review of HR strategies.

The results of studies conducted by various scientists indicate the need to adapt to new conditions, namely, proper motivation of employees and hiring new qualified employees. To successfully cope with the challenges of the digital era, it is proposed that innovative approaches be used in personnel management. In general, the rapid growth of e-commerce challenges companies to reconsider their approaches to human resource management.

Thus, the rapid growth of e-commerce in economic and social conditions acutely raises the question of reconsidering essential aspects of human capital management. It is not only about increasing the requirements for companies' employees in connection with the introduction of high-tech products but also about changing the HR management model in response to new business demands. Despite the growing literature in this area, there remains a need for more context-sensitive research in all aspects. In particular, in the next year, countries such as Kazakhstan need to conduct more studies that integrate

analysis of e-commerce development to shed light on the mechanisms of proper human resource management in e-commerce settings. This study aims to bridge this gap and provides an analysis of the current challenges faced by companies operating in this field in specific Kazakhstan.

Methodology

The article was written based on secondary data. In the research area, we conducted a bibliometric analysis to study the most frequently used keywords in the SCOPUS database regarding the research topic, to identify the trend, and to study the latest trends on the subject of e-commerce and human resource management. The scientific works of the authors were analyzed and used from the sources Web of Science, Research Gate, and Google Scholar.

The research methods used are based on a thorough analytical review of existing world and domestic economic science methods. This study is based on an integrated approach, such as systematization and grouping statistical data (statistical synthesis of data). The systematization approach involves regulating human resource statistics related to e-commerce. This method describes the collection of data describing the position of e-commerce and the stage of its development in the Kazakhstan market, that is, based on the dynamics of the growth of e-commerce in the country. Visualization of statistical data collected using the method of grouping and systematization in the form of groupings and drawings is aimed at describing the number of e-commerce employees and sales volume year-on-year.

The materials used comparative analysis to compare the average salary between e-commerce workers and the average wage in Kazakhstan. The study is based on data from the report of the national labor market of Kazakhstan as well as data from the Committee of National Statistics for the period 2019-2022. To accurately achieve the purpose of the article, a logically structured method of conducting scientific research is used, which creates the prerequisites.

Due to this, the research process is divided into three critical stages, each of which includes several stages. The first stage, selection, and definition, is theoretical or conceptual and based on a literature review. The second stage is a comprehensive analysis of statistical data characterizing trends in e-commerce and human resource management. The third stage - identifying problems and developing proposals for improving human resource management in the field of e-commerce.

Results

The retail e-commerce market in Kazakhstan grew by 30% by the end of 2022 and reached 1.3 trillion tenge. The consulting company PwC Kazakhstan reported this in its study. The overall retail e-commerce market continues to grow, reaching 8.2% in 2022 (7.5% in 2021). Over the year, sales on marketplaces increased by 33% and in online stores by 19%. We can also see the share of sales on marketplaces growing in 2022, reaching 89%, up from 82% in 2021.

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According to a study conducted by PwC Kazakhstan and the Association of Digital Kazakhstan (ADK), the volume of the e-commerce market will reach 1.3 trillion tenge in 2022 (in the previous year, it was estimated at 1.04 trillion tenge). At the same time, the authors of the study estimate the share of sales from marketplaces at 89% (67% on the global market) [14]. Euromonitor International also estimates the size of the Kazakh e-commerce market at 1.3 trillion tenge, although these statistics do not include online sales [15]. According to the National Bureau of Statistics, in 2022, the volume of the retail e-commerce market (domestic market), including marketplaces, amounted to 1,963.5 billion tenge, of which retail turnover through marketplaces amounted to 1,117.9 billion tenge (56.9 billion tenge). %), selling retail business. Goods through its online resource – 845.6 million tenge (43.1%). We see that in 2022, the share of e-commerce in retail trade, excluding marketplaces, was 5.4%. In 2023, the volume of electronic trade amounted to about 2.2 trillion tenge 2,203.1 billion tenge. According to the latest data, we can notice that the volume of e-commerce is growing every year (Figure 1).
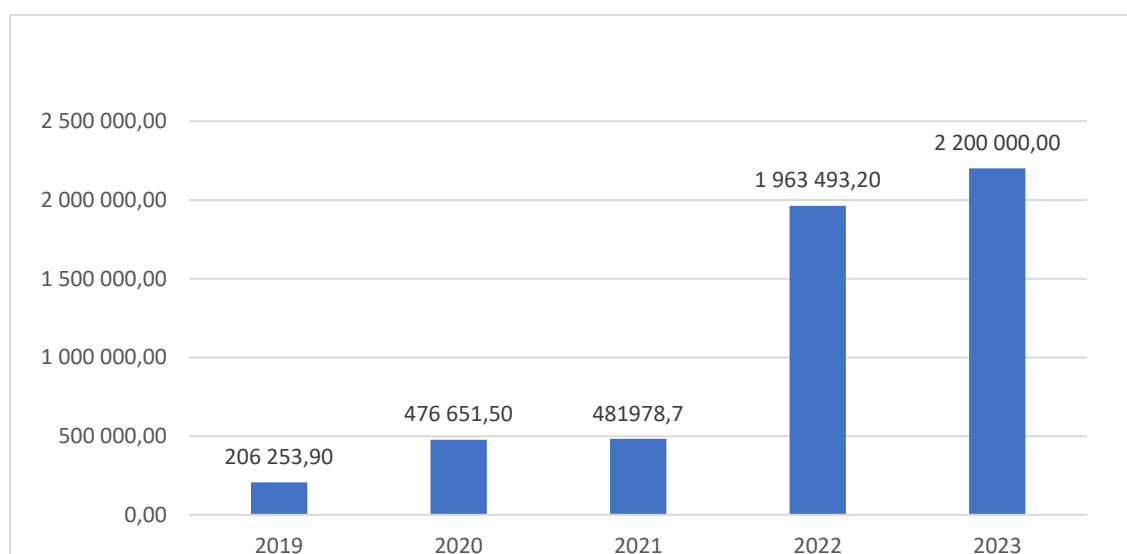

Figure 1. E-commerce sales volume

Note: compiled by the author based on sources [16]

Figure 1 shows the most significant growth in online retail sales in 2022 compared to other years. In 2022, online retail sales increased four times compared to 2021. And from 2019 to 2023, online trade volume has increased 13 times and is snowballing. The reason for this significant increase is people's frequent use of online shopping after the pandemic, as well as accessible and easy-to-use sites such as Satu.kz, Lamoda.kz, Kaspi.kz, Tomas.kz, Wildberries, Ozon. And Chinese Alibaba, Taobao, 1688 and Pinduoduo in Kazakhstan.

Figure 2 provides seems to show the share of sales for a particular sector or company over the years 2019 to 2023.
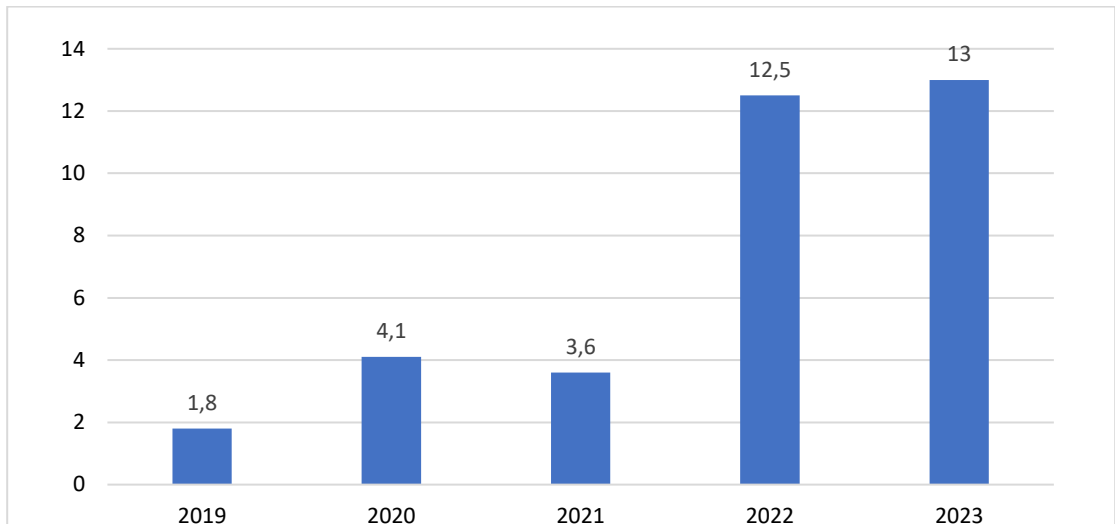
Figure 2. The share of e-commerce in total retail trade is expressed in %

Note: compiled by the author based on sources [16]

Figure 2 shows with the growth of e-commerce, the number of human resources that work in this field has begun to increase. According to the Bureau of National Statistics, the number of people employed in E-COMMERCE was 6.9 thousand people in 2019, 16.5 thousand in 2020, 23,612 people in 2021, 25729 workers in 2022, and in 2023 the number of internet commerce workers was 28789. Figure 3 provides data on the number of employees working in the e-commerce sector from 2019 to 2023.
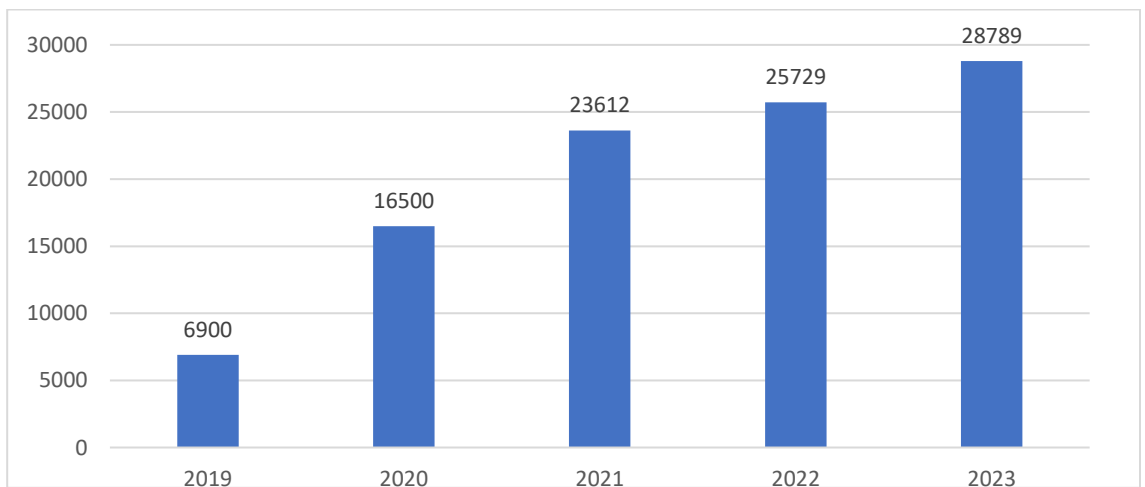

Figure 3. Number of employees in e-commerce

Note: compiled by the author based on sources [16]

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Figure 3 shows that it should be noted that this number of employees works both in organizations and for entrepreneurs for whom Internet commerce was either the main or the only secondary activity. As a result, with the development of online trading, a shortage of qualified personnel in this area began to be acutely felt. According to Enbek. kz in 2022, there is a big difference in the number of resumes published on the website in the field of e-commerce with the number of open vacancies in this area, which indicates a lack of qualified human resources in the field of e-commerce.

The number of IT vacancies in 2021 increased by 52% compared to 2020; the most popular specializations were programming and development (54%), engineering (23%), system administration (20%), webmaster (17%) and web engineering (15%). Software developers and testers are in most tremendous demand from employers. Regarding the web and applications on the site, there are 4.6 thousand vacancies published, and the number of resumes is 4.2 thousand.

Next come graphic and multimedia designers with 2.5 thousand vacancies and 1.6 thousand published resumes. Developers and analysts of software and multimedia applications close the top three with 2.3 thousand vacancies and 2.2 thousand resumes. According to statistics, we can see that the number of published summaries is several times less than the number of applications [17]. To solve the problem of reducing the problem of shortage of qualified personnel in the field of e-commerce in Kazakhstan, the following solutions can be proposed:

Training and professional development: Organizing training programs and courses on various aspects of e-commerce, including digital marketing, web development, and logistics management, will help prepare qualified specialists. Establishing partnerships with universities and colleges to organize internships, practicums, and training courses in specialties related to e-commerce will help identify and prepare talented graduates.

Attracting international specialists and developing an internship and mentoring program: Inviting qualified specialists from other countries to work in e-commerce companies or organize joint projects and exchange experience can help improve the level of knowledge and skills of local personnel. Creating internship and mentoring programs for young professionals and graduates will allow them to acquire practical skills in e-commerce under the guidance of experienced professionals.

Investments in the development of IT infrastructure: The development of infrastructure and a technological base for training and development in the field of information technology will help create a favorable environment for the professional growth and development of specialists in the field of e-commerce.

Development of career programs and prospects: Creating attractive career paths and professional growth opportunities in e-commerce companies can stimulate motivation to learn and develop skills.

According to official statistics from the national bureau, despite the lack of qualified specialists in the field of e-commerce, there is also a high turnover of personnel in the field of e-commerce. According to enbek. kz, the highest staff turnover is observed among IT specialists aged 21-40 years. Researchers in the field of ICT change their jobs more often than others, on average 2.6 times per year, as well as administrators of local computer networks – 2.1 times per year. Statistics also show that men change jobs more

often than women. In general, IT specialists change jobs on average twice in 5 years [17]. To reduce staff turnover in e-commerce, a company can provide employees with opportunities for training, development, and professional growth, including participation in training, courses, and master classes. This helps increase their motivation and loyalty. Also, creating an open feedback system where employees can express their suggestions and comments, as well as participate in decision-making, helps improve employee satisfaction. It is worth noting that a balanced distribution of workload can help reduce labor turnover. Constantly monitoring workload distribution and ensuring that responsibilities are shared evenly among employees will help prevent overload and reduce the risk of burnout.

One of the problems of human resource management in e-commerce is the low material motivation of employees in this field. According to the Ministry of Labor and Social Protection of the Population, the average salary of e-commerce workers was 133 thousand in 2019, 155 thousand in 2020, 189 thousand in 2021, and 210 thousand in 2022. While the average wage in Kazakhstan for 2019 was 191 thousand, for 2020 it was 233 thousand, in 2021 it was 249 thousand tenge, in 2022 the average salary was 309 thousand tenge and in 2023 the average salary reached 310,000 tenge (Figure 4).
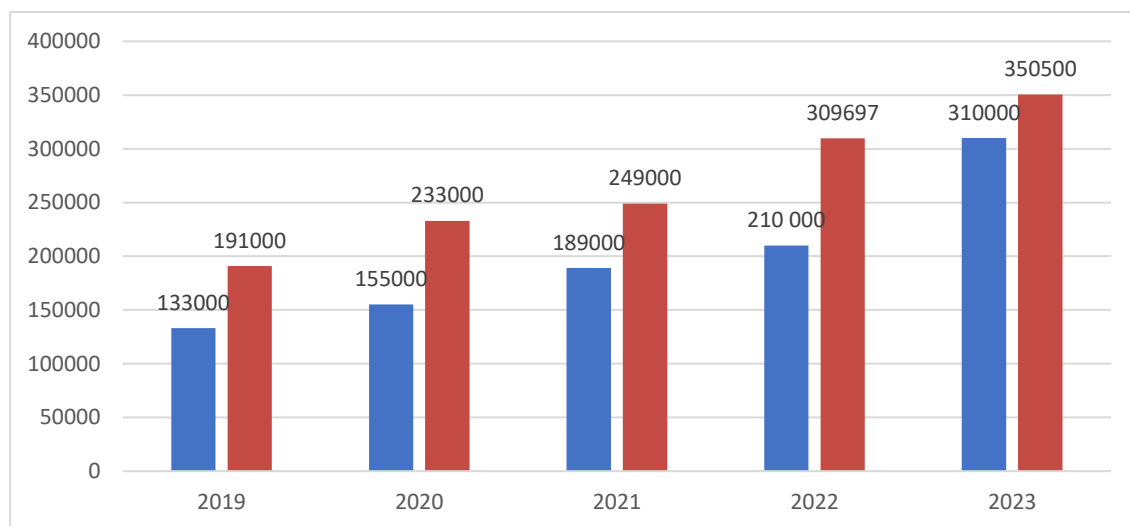

Figure 4. Average salary in e-commerce and Kazakhstan

Note: compiled by the author based on sources [18]

To solve the problem of employee motivation and engagement in the field of e-commerce in Kazakhstan, the following solution methods can be applied:

Providing opportunities for growth and development: Creating individual development plans, learning new skills, and providing opportunities for career advancement will help employees feel valued and motivated.

Reward and Recognize Achievement: Publicly recognizing and rewarding employee achievements, including outstanding performance or excellence in responsibilities, helps increase employee motivation and engagement.

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Establishing a fair reward system: Ensuring a fair and transparent process for determining salaries, bonuses, and bonuses, as well as timely and adequate rewards for high performance, helps to increase employee motivation.

According to official statistics, in 2021 in Kazakhstan, the number of employees working remotely amounted to 53.8 thousand people, which is equal to only 0.6% of the total employed population. At the same time, there is a significant disproportion in the number of remote workers regionally. This phenomenon occurs most often in the Almaty region (18% of remote workers) and the city of Almaty (18%). This work format is least popular in the East Kazakhstan region (0.3%). In most cases, e-commerce uses remote work, which requires an effective system for managing remote employees, ensuring communication, and coordinating work [16].

According to the HeadHunter website, due to the consequences, first of all, there was an increased demand for remote work among both employers and job seekers. In 2020, we saw an increase in offers with the possibility of remote work by 59% compared to 2019, and in 2021 – already by 169% compared to 2019. Job seekers in 2021 began to look for work with a remote schedule three times more often than in 2019 [19]. The development of such a form of work as remote work leads to the fact that the classical formwork in a team, one of the historical fundamental components of workers' self-organization, which once led to the union of workers into trade unions - is under threat of extinction.

The spirit of collectivism is inherent in a society in close contact. In this regard, there is an increasing need to maximize the benefits of the social partnership system. Consolidation is significant not only at the level of an individual organization, but also joining efforts at a larger scale. A significant factor is to set clear expectations and goals: It is necessary to ensure that the expectations and work goals of each employee are understood by setting clear KPIs and deadlines for completing tasks. This will help avoid misunderstandings and ensure practical remote work. Regularly holding online meetings is also important to discuss current tasks, project progress and resolve issues. It is essential to organize a feedback system so that employees can share their thoughts and ideas, as well as receive constructive feedback from management.

Conclusion

In conclusion, it should be noted that with the development of online trading in Kazakhstan, there is an acute shortage of qualified personnel in this area. Statistics show a significant difference between the number of resumes published and the number of open positions in the e-commerce industry. To solve this problem, the following ways are proposed:

1) Training and development of employees, including organizing training programs and courses and establishing partnerships with universities for internships and practices.

2) Attracting international specialists and developing internship and mentoring programs for young professionals.

3) Investments in developing IT infrastructure for training and development in the field of information technology.

4) Creating attractive career programs and prospects for e-commerce employees.

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However, in addition to this, one should take into account the high turnover of personnel in this area, caused by the low material motivation of employees. Establishing a fair compensation system and maintaining a team spirit in a remote work environment are important in solving this problem. It is essential to set clear expectations and performance goals for each employee and provide a feedback system for practical remote work. Only an integrated approach and joint efforts both at the level of individual companies and the level of the industry can ensure the sustainable development of e-commerce in Kazakhstan. In addition to the aspects mentioned above, two additional issues affecting the e-commerce industry in Kazakhstan should be addressed: remote work and low wages. Remote work, which has become more common due to the development of online technologies, creates new challenges for human resource management. While it provides flexibility and access to international labor markets, it can also lead to losing community spirit and weakening employee bonds. It is necessary to develop effective strategies to support teamwork and remotely communicate effectively to maintain professional connections and keep employee motivation levels high. In addition, low wages for employees in the e-commerce industry are becoming a significant factor affecting the industry's attractiveness to talented professionals. With rapid advances in technology and growing demand for skilled professionals, low pay can lead to talent attrition and the inability of companies to attract and retain highly qualified specialists. Establishing a fair and competitive compensation system is becoming essential to attracting and retaining talented employees in the e-commerce industry. Only by jointly solving these problems and developing comprehensive human resource management strategies can we ensure the sustainable development of e-commerce in Kazakhstan and achieve success in a rapidly changing market.

The study's results may be applicable in the following areas: development and improvement of training and personnel development systems in e-commerce companies, development of methods for attracting and retaining qualified personnel in e-commerce, and determining priorities for investment in IT infrastructure for training and development of information technology workforce. However, it's essential to acknowledge the study's limitations, including resource constraints and potential challenges in generalizing findings beyond the surveyed region. Further research, particularly delving into aspects like employee motivation and training, can provide deeper insights and facilitate exploring more comprehensive solutions to enhance e-commerce development and sustainability.

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