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Innovative Tools for Managing Enterprise Payroll Funds in the Context of the Digital Transformation of the Economy

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ABSTRACT

The article examines innovative tools for managing enterprise payroll funds in the context of the digital transformation of the economy. The relevance of the study is determined by the fact that the payroll fund can no longer be treated solely as an accounting cost indicator. It increasingly functions as a managed analytical circuit linked to workforce planning, productivity, employee retention, market positioning of pay, reward transparency and compliance with labor legislation. The purpose of the study is to substantiate a digital payroll fund management circuit that combines statistical, market, financial, HR analytical and regulatory components. Results. Based on the analysis of Ukrainian legislation, official statistical indicators, data from the Pension Fund of Ukraine, Work.ua labor market statistics, materials of the National Bank of Ukraine, ILO, OECD and European regulatory documents, the article systematizes digital tools for payroll fund management: payroll automation, human resource information systems, digital time and attendance tracking, salary benchmarking, payroll fund forecasting, HR analytics, pay equity analytics, KPI/OKR-based variable pay, employee self-service and algorithmic management. The study shows that the average wage used for pension calculation increased from UAH 12,993.56 in 2021 to UAH 20,653.55 in 2025, which, under constant headcount, forms a calculated payroll fund pressure index of 159.0% compared with 2021. Vacancy-based market statistics reveal significant territorial and occupational differentiation of wage benchmarks. The article substantiates a digital payroll fund management circuit that combines external statistical and market benchmarks, internal HR/payroll data, an analytical layer for forecasting and audit, managerial decisions on the payroll budget and a compliance control system. The article argues that the managerial value of payroll fund digitalization arises when automation is combined with transparent rules, human oversight of algorithmic decisions and personal data protection.

KEYWORDS

payroll fund, digital transformation, HR analytics, salary benchmarking, payroll automation, algorithmic management, pay transparency, human resource management.

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СОЦІАЛЬНИЙ РОЗВИТОК: економіко-правові проблеми

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Інноваційні інструменти управління фондом оплати праці підприємств в умовах цифрової трансформації економіки

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СТАТТЯ

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АНОТАЦІЯ

У статті досліджено інноваційні інструменти управління фондом оплати праці підприємств в умовах цифрової трансформації економіки. Актуальність теми зумовлена тим, що фонд оплати праці дедалі менше може розглядатися лише як обліковий показник витрат і дедалі більше набуває значення керованого аналітичного контуру, пов'язаного з плануванням чисельності персоналу, продуктивністю, утриманням кадрів, ринковим позиціонуванням оплати, прозорістю винагороди та дотриманням трудового законодавства. Метою дослідження є обґрунтування цифрового контуру управління фондом оплати праці, який поєднує статистичні, ринкові, фінансові, кадрово-аналітичні та регуляторні компоненти. Результати. На основі аналізу законодавства України, офіційних статистичних показників, даних Пенсійного фонду України, ринкової статистики Work.ua, матеріалів НБУ, ILO, OECD та європейських регуляторних документів систематизовано інструменти цифрового управління фондом оплати праці: автоматизацію розрахунку заробітної плати, інформаційні системи управління персоналом, цифровий облік робочого часу, ринкове порівняння зарплат, прогнозування фонду оплати праці, кадрову аналітику, аналітику рівності оплати, змінну оплату за ключовими показниками результативності та цілями, самообслуговування працівників і алгоритмічне управління. Показано, що середня заробітна плата для обчислення пенсії зросла з 12 993,56 грн у 2021 р. до 20 653,55 грн у 2025 р., що за сталої чисельності персоналу формує розрахунковий індекс навантаження на фонд оплати праці 159,0% до рівня 2021 р. Ринкова статистика вакансій засвідчує суттєву територіальну та професійну диференціацію зарплатних орієнтирів. Обґрунтовано цифровий контур управління фондом оплати праці, який поєднує зовнішні статистичні та ринкові орієнтири, внутрішні кадрові й зарплатні дані, аналітичний шар прогнозування й аудиту, управлінські рішення щодо бюджету оплати праці та систему контролю комплаєнсу. Обґрунтовано, що управлінська цінність цифровізації фонду оплати праці виникає за умови поєднання автоматизації з прозорими правилами, людським контролем алгоритмічних рішень і захистом персональних даних.

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КЛЮЧОВІ СЛОВА

фонд оплати праці, цифрова трансформація, кадрова аналітика, ринкове порівняння зарплат, автоматизація розрахунку заробітної плати, алгоритмічне управління, прозорість оплати, управління персоналом.

1. Introduction

In the context of the digital transformation of the economy, the payroll of an enterprise ceases to be only an aggregate accounting indicator that fixes the number of accrued payments. Its managerial role shifts to the plane of forecasting personnel costs, evaluating productivity, maintaining critical competencies, maintaining competitive levels of remuneration and ensuring transparency of labor relations. In the digital environment, the payroll is formed at the intersection of internal personnel and salary data, financial planning, market salary benchmarks, data on working hours, performance indicators and regulatory restrictions.

The Law of Ukraine "On Remuneration of Labor" determines the structure of wages through basic wages, additional wages, other incentives, and compensation payments [1]. The conditions of martial law have changed the organizational regime of labor relations, including electronic communication, personnel document management, and the need to ensure the payment of wages within the employer's capabilities [2]. The digitalization of salary and personnel processes increases the amount of personal data processed by the employer, so the management of the payroll fund must take into account the requirements of the legislation on the protection of personal data [3].

For Ukrainian enterprises, the problem is of increased practical urgency due to a combination of war risks, migration and personnel shortages, business relocation, competition for employees with digital competencies, the spread of remote work, inflationary pressures, and the need to comply with labor laws in an unstable environment. In 2025, the NBU associated the persistence of price pressures with business labor and energy costs, which reinforces the importance of preliminary planning of the payroll, and not only its post-factum accounting [4].

The scientific problem is related to the fact that digital personnel management is mainly described through recruitment, training, evaluation, or automation of personnel processes, while the payroll is rarely considered as an independent object of digital management. In the practice of enterprises, this creates a gap between accounting, payroll, personnel analytics, financial budgeting and strategic remuneration management. Bridging this gap requires systematizing tools that combine payroll calculation with managerial decisions about the structure, dynamics, fairness and efficiency of the payroll.

2. Literature Review

Modern literature on digital personnel management forms the basis for the analysis of the payroll as part of a broader digital HR architecture. Ruiz, Benítez, Castillo and Braojos conceptualize digital HR strategy as the integration of HR processes with digital technologies and empirically test its impact on the performance of companies in a sample of 351 enterprises [5]. Marler and Boudreau consider HR analytics as an evidence-based management approach that should create value through data quality, the relevance of models, and the connection to business decisions [6].

The problem of transition from reporting to strategic analytics is described in detail in the works of Minbayeva, Huselid, Angrav and co-authors. Minbayeva emphasizes that reliable analytics of human capital requires three conditions: data quality, analytical competencies, and the ability of the organization to act on the results of the analysis [7]. Huselid connects the practice of workforce analytics with the quality of managerial decisions [8]. Ungrave, Charlwood, Kirkpatrick, Lawrence, and Stewart warn against turning HR analytics into a rhetorical fashion without proper methodology, data, and managerial accountability [9].

For the management of the payroll, a group of works that connects information technology, payment for results and productivity is especially important. Aral, Brynjolfsson and Wu prove the complementarity of information technology, human resource analytics and payment by results, which creates a greater productive effect in combination than the separate implementation of each element [10]. Bondaruk and Brewster consider personnel management technologies as a factor in changing the very function of personnel management, and not only as an auxiliary tool of administration [11]. Strohmeier clarifies the conceptual boundaries of digital personnel management, distinguishing between digitization, digitalization, digital transformation, and the digital divide [12].

A separate area of literature concerns algorithmic control. Meigerink, Boones, Keegan summarize interdisciplinary approaches to algorithmic personnel management [13]. Painter-Rochelle and Parker

show that algorithms can perform managerial functions of monitoring, goal setting, performance management, scheduling, compensation, and termination [14]. Kellogg, Valentine, and Christian consider algorithms as a new plane of organizational control [15]. Tambe, Capelli, and Jakubowicz analyze the managerial limitations of artificial intelligence in the field of human resources, including the risks of bias, explainability, and data quality [16].

The literature on pay transparency and equality of remuneration is important for assessing the fairness of digital solutions. Baker, Halberstam, Croft, Mas and Messakar, based on data from Canadian universities, showed that pay transparency laws can significantly reduce the gender pay gap [17]. Cullen and Pakzad-Kherson, analyzing the equilibrium effects of transparency, emphasize that disclosure of information changes not only the bargaining position of employees but also the behavior of employers [18]. Castilla and Benard demonstrate the risks of latent bias even in systems that declare meritocracy [19].

Ukrainian studies specify the problem for the national labor market. Krivosheev and Gudz associate the modernization of the payroll management mechanism with digitalization, market comparison of salaries, remote work, migration processes, and military challenges [20]. Vorobets and Mokhnatsky consider the digital transformation of personnel management through changes in hiring procedures, internal mobility, workforce management, and feedback [21]. Varis, Sereda, Kravchuk and Yakhontova compare modern personnel management systems and record that personnel cost management is often less covered than recruitment, personnel accounting, performance assessment and personnel analytics [22].

Generalization of sources allows us to distinguish three research lines: digital HR strategy, remuneration management, and algorithmic employee management. Their combination in the applied model of payroll management remains insufficiently developed. In the available studies, sole proprietorships are rarely presented as a digital outline of management decisions with defined data, tools, control indicators, and compliance risks.

3. Problem Statement

The purpose of the study is to scientifically substantiate innovative tools for managing the payroll of enterprises in the context of digital transformation of the economy and to develop an applied digital circuit that combines statistical, market, financial, personnel-analytical and regulatory components of remuneration management.

To achieve the goal, the following tasks have been set: to determine the normative and statistical boundaries of the payroll fund as an object of management; to assess the dynamics of average wages as an indicator of pressure on the payroll; to analyze market salary benchmarks for market comparison of salaries; systematize digital payroll management tools by their functions, data, control indicators, and risks; to substantiate the digital circuit of management of the payroll of the enterprise.

The subject of the study is management relations and digital tools that provide planning, forecasting, control, adjustment and audit of the company's payroll. The object of the study is the payroll of enterprises in the digital environment of personnel and financial management.

4. Methods and Materials

The study is based on a combination of normative analysis, statistical generalization, comparative analysis, systematization of digital management tools and elements of applied modeling. Normative analysis is used to determine the legal boundaries of remuneration management, personal data processing and the use of digital tools in labor relations.

The statistical basis is the indicators of the Pension Fund of Ukraine on the average salary for calculating the pension for 2021-2025. [23], Instruction on Salary Statistics, which determines the composition of the payroll and its main structural elements [24], market statistics Work.ua for May 2026, reflecting salary benchmarks by cities and professional categories [25]. For a macroeconomic explanation, the NBU materials on inflationary pressures and business labor costs are used [4].

The international context is based on the materials of the ILO on global wage dynamics and pay inequality [26], the OECD on algorithmic management in the workplace [27], the EU Directive 2023/970 on pay transparency [28] and the EU framework on the regulation of artificial intelligence systems [29].

The limitation of the study is the use of secondary data. Statistics Work.ua are not official statistics of actually paid wages, as they are based on vacancy data and labor market profiles; Therefore, it is used as a tool for market comparison of wages, and not as a substitute for state statistics. The study does not assess the causal impact of individual digital tools on profitability, productivity or staff turnover, as such an analysis requires panel microdata of enterprises before and after the implementation of relevant systems.

5. Results and Discussion

The payroll has a dual status: on the one hand, it is an accounting and statistical aggregate, on the other hand, it is a management parameter through which the enterprise regulates the price of labor, personnel stability, productivity, motivation and compliance risks. The legislative structuring of wages into basic, additional and other incentive and compensation payments creates a basic framework for calculating wages [1]. However, digital management requires the decomposition of payroll not only by payment types but also by business functions, cost centers, job categories, sources of variable pay, and risk levels.

State statistics form macro- and meso-level benchmarks for remuneration management. The Instruction on Salary Statistics defines the basic salary fund, the additional salary fund and other incentive and compensation payments as the basic components of the payroll fund [24]. For an enterprise, these indicators do not replace internal HR analytics, but set an external coordinate system for assessing the dynamics of labor costs, comparing industry trends and identifying inflationary pressure on the labor budget.

The indicators of the Pension Fund of Ukraine provide a suitable basis for illustrative analysis of the dynamics of the average salary from which insurance premiums are paid, and which is taken into account for calculating the pension. In 2021, it amounted to UAH 12,993.56, in 2022 – UAH 13,376.21, in 2023 – UAH 14,308.46, in 2024 – UAH 17,486.60, in 2025 – UAH 20,653.55 [23]. If we consider these values as a conditional external indicator of the salary base, then with a constant number of personnel, the estimated burden on the annual payroll of one employee increased from UAH 155,922.72 in 2021 to UAH 247,842.60 in 2025 (Table 1).

Table 1. Dynamics of the average salary for calculating the pension and the estimated index of the load on the payroll with a constant number of personnel, 2021-2025

Year	Average salary, UAH/month	Increase to the previous year, %	Estimated annual sole proprietorship for 1 employee, UAH	Individual entrepreneur index, 2021=100
2021	12 993,56	—	155 922,72	100,0
2022	13 376,21	2,9	160 514,52	102,9
2023	14 308,46	7,0	171 701,52	110,1
2024	17 486,60	22,2	209 839,20	134,6
2025	20 653,55	18,1	247 842,60	159,0

Source: Calculated by the authors according to the data of the Pension Fund of Ukraine [23].

The data in Table 1 and Figure 1 show that the sharpest acceleration of the nominal wage indicator occurred in 2024-2025. For an enterprise, such dynamics mean an increase in personnel costs and an increased risk of budgeting errors if payroll is planned based on the historical average without scenario revisions. Digital management tools should provide accurate calculation of accruals and constant updating of the forecast by position, department, cost center, and type of payment. The economic assessment of the payroll fund should cover not only its absolute amount, but also the ratio with revenue, operating costs, labor productivity, margin and staff turnover costs. Without such indicators, the growth of the payroll fund can be erroneously interpreted only as cost pressure, although in some cases it reflects the retention of critical competencies, compensation for personnel shortages, or maintenance of productivity.

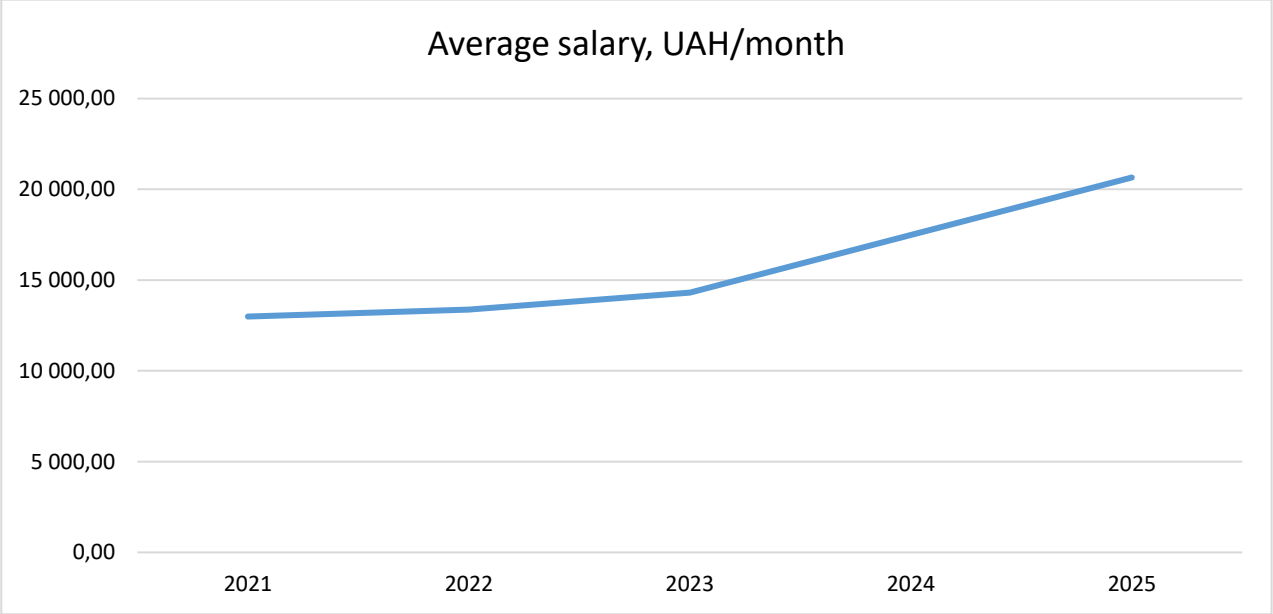

Figure 1. Dynamics of the average salary for calculating the pension in Ukraine, 2021-2025
Source: Compiled by the author based on [23].

Fig. 1 confirms the change in the scale of the salary base after 2023 For the digital management of the payroll, the ability of the enterprise to quickly reassess the cost scenarios is of key importance: the base fund, the bonus fund, expected surcharges, overtime pay, compensation for deficit competencies, and costs associated with remote or relocated employment.

Market comparison of salaries is one of the key innovative tools for payroll management, as it combines the internal structure of positions and grades with external market benchmarks. Its managerial function is not to mechanically copy market salaries, but to determine the permissible payment corridors, position the enterprise in relation to competitors for personnel, assess the risk of personnel loss and form a reasoned policy of increasing remuneration.

According to Work.ua, as of May 2026, the average salary in Ukraine was UAH 29,000. Since the relevant statistics are updated dynamically, the given values should be considered as a market segment on the date of circulation, and not as a stable official indicator of actually paid wages. The urban segments differed significantly: in Kyiv, the figure was UAH 34,000, in Lviv – UAH 30,000, in Dnipro – UAH 27,500, in Odesa – UAH 27,000, in Kharkiv – UAH 25,000, in Zaporizhzhia – UAH 22,500 [25]. For enterprises, this means that a single national average cannot be a sufficient basis for remuneration policy (Table 2).

Table 2. Regional Market Comparison of Salaries by Vacancies Work.ua, May 2026

Labor market segment	Salary benchmark, UAH/month	Deviation from the average in Ukraine, %	Managerial importance for sole proprietors
Ukraine	29 000	+0,0	Basic market benchmark for the overall assessment of the salary level.
Kyiv	34 000	+17,2	Highly competitive pressure for specialists and managers.
Dnipro	27 500	-5,2	Adjustment of payment corridors and hiring budget.
Zaporizhzhia	22 500	-22,4	Lower benchmark with increased retention risks.
Lviv	30 000	+3,4	Taking into account regional competition for specialists.
Odesa	27 000	-6,9	Adjustment of the payment policy by local market.
Kharkiv	25 000	-13,8	A lower benchmark with risks of personnel churn.

Source: Compiled by the authors based on [25].

The data in Table. 2 show that market management of the payroll fund should take into account not only the industry and position, but also the territorial or remote format of employment. A company with lower regional pay can lose employees not only to local employers, but also to companies that hire remotely. Therefore, the digital model of payroll management should include a tool for regular updating of external salary benchmarks and comparing them with internal payment corridors.

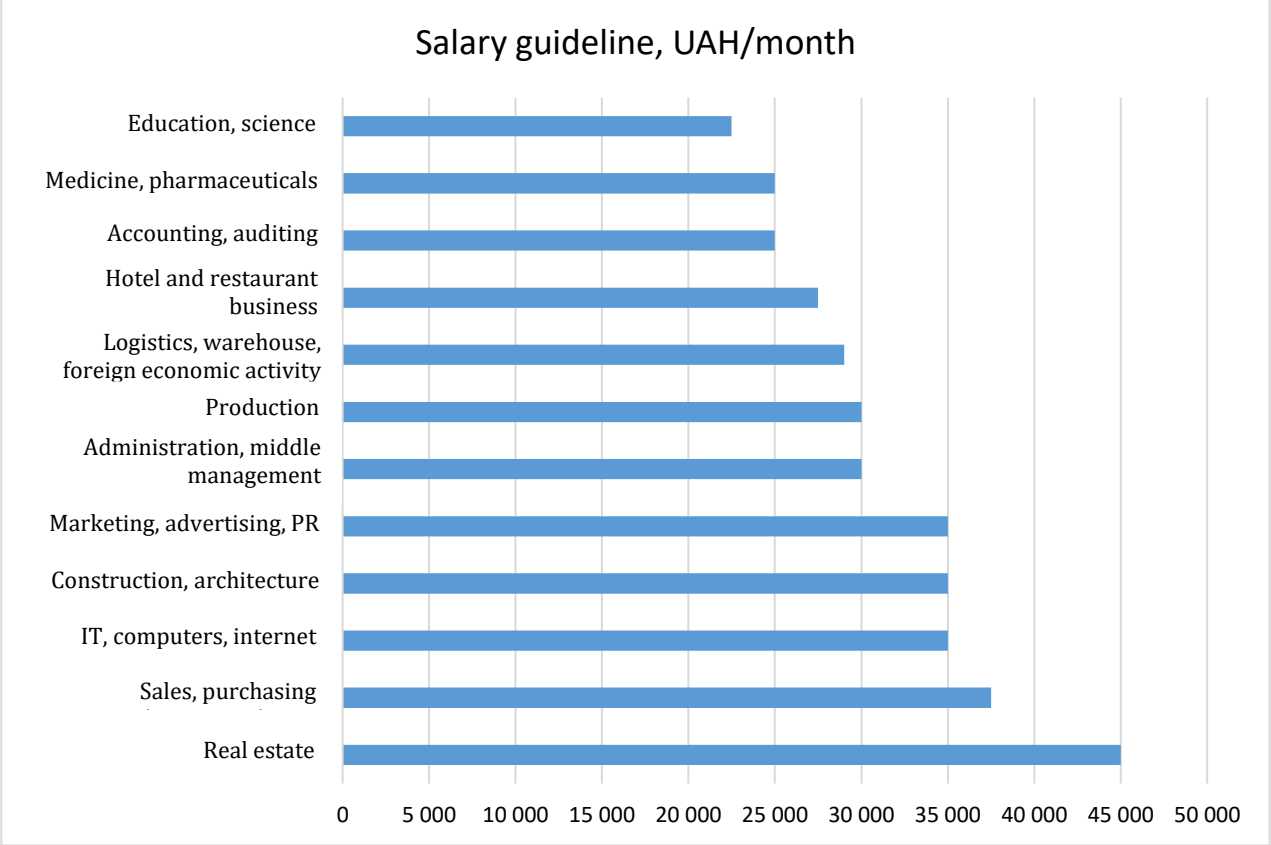

Figure 2. Market salary benchmarks for individual professional categories, May 2026
Source: built by the author based on the data of Work.ua [25].

Figure 2 demonstrates different prices of labor by professional categories. For payroll management, this has two implications. Personnel costs cannot be planned through the average rate for the enterprise if the personnel structure contains scarce or highly paid groups. Pay increases should be evaluated as an expense and at the same time as a tool to reduce turnover, maintain productivity and maintain critical competencies.

It is advisable to group innovative tools for managing the payroll not by the name of the software, but by the management function. This approach makes it possible to separate tools that only automate operations from tools that change the quality of management decisions. The greatest value is created by systems that combine data on accruals, personnel events, working hours, performance, external salary benchmarks and financial constraints of the enterprise.

Table 3 shows that the digitalization of the payroll covers three levels. The operational level ensures the accuracy of calculations, document flow, timesheets, and adherence to the payment calendar. The analytical level covers forecasting of the payroll, comparison with the market, and control of the ratio of personnel costs and productivity. The regulatory and ethical level is related to payment transparency, gap auditing, personal data protection, and human control of algorithmic decisions.

Algorithmic management is the riskiest block in payroll digitalization, as it can affect performance evaluation, bonuses, shift distribution, access to tasks, career advancement, and even termination of employment relationships. According to the OECD, the survey covered more than 6000 middle managers in six countries; 60% of managers indicated an improvement in the quality of decisions, but a significant part at the same time expressed concern about responsibility, explainability, and protection of employees' physical and mental health [27].

Table 3. Innovative tools for digital management of the company's payroll

Tool	Data	Management decisions	Control indicators	Main risks
Automation of payroll calculation and electronic HR document management	Accrual, withholding, sick leave, vacations, personnel orders	Payment calendar, reduction of manual errors, control of timeliness of salary	Duration of the salary cycle closure; error rate; Timeliness of payments	Integration errors, violation of deadlines, personal data protection
Time Tracking and Shift Planning	Timesheets, overtime, downtime, remote work, shift schedules	Schedule optimization, overtime control, workload planning	Proportion of overtime; costs per hour of labor; paid downtime	Excessive monitoring, conflicts over actual hours worked
Market Salary Comparison	Market salaries, internal grades, competitors' offers, vacancies	Adjustment of pay corridors, retention of scarce personnel, hiring budget	Market compliance ratio; market percentile; Turnover in critical roles	Mechanical market copying without taking into account performance and financial stability
HR analytics and payroll forecasting	Number, salary history, bonuses, productivity, revenue, vacancies	Scenarios of the budget of individual entrepreneurs, forecast of the need for personnel, control of the ratio of sole proprietorship and income	sole proprietorship/revenue; forecast error; labor productivity; Budget reserve	Opacity of models, poor data quality, false causal inferences
Variable payment by key performance indicators and goals	Meeting goals, team results, individual KPIs, quality of work	Distribution of the bonus fund, combination of individual and team rewards	Share of variable payment; KPI fulfillment; Payback of bonuses	Manipulation of metrics, demotivation with unclear rules
Pay Equality Analytics	Salary by position, gender, age, seniority, productivity, grades	Detection of unreasonable gaps, preparation of payment transparency policy	Unexplained pay gap; share of positions with payment corridors; Number of adjustments	Discriminatory effects, incorrect grouping of positions, confidentiality
Employee self-service and payment transparency	Payslips, employee requests, bonus rules, certificates	Reducing administrative burden, increasing trust in the payment system	Request processing time; number of complaints; Self-service share	Disclosure of sensitive information, employees' misunderstanding of the payment structure
Algorithmic control	Monitoring Data, Tasks, Performance, Ratings	Support for task distribution, performance evaluation, and cost overrun prevention	Proportion of decisions with human review; frequency of audits; Number of appeals	Bias, Opacity, Over-Control, Risk of High-Risk AI-Based Decisions

Source: Compiled by the authors based on regulatory requirements for remuneration and personal data protection [1-3], research on digital personnel management, personnel analytics and algorithmic management [5-16; 20-22], works and regulatory documents on transparency and equality of pay [17-19; 28], as well as market statistics of salaries [25].

The data in Table 4 shows that algorithmic control cannot be integrated into the payroll as a neutral technical module. Its application requires rules of explainability, responsibility, audit, consultation with employees and the possibility of human review of decisions. The EU Artificial Intelligence Act reinforces this logic, as employment and employee management systems can be high-risk if they affect the selection, evaluation, promotion, or conditions of employment [29].

Table 4. International Empirical Guidelines for the Application of Algorithmic Tools in Digital Personnel and Payroll Management

Indicator	Meaning	Importance for the management of a sole proprietorship
Improving the quality of decisions due to algorithmic control	60% of managers	Digital systems can improve the accuracy of scheduling and control, but should not automatically determine payment without checking the context.
The most common concern: unclear responsibility	28%	It is necessary to consolidate who is responsible for decisions on bonuses, evaluations and adjustments of payment.
Concerns about the explainability of decisions	27%	The employee must understand the logic of indicators that affect variable pay or performance evaluation.
Concerns about the physical and mental health of employees	27%	Monitoring systems cannot be built solely on maximizing productivity without workload limits.
Availability of at least one algorithmic management risk management measure	89% of businesses in the OECD sample	Enterprises must create rules for the use of algorithmic systems, audit procedures and channels for appealing decisions.
Written guidelines for the use of algorithmic control	64%	The remuneration policy should include a description of digital tools, the limits of their use, and human control procedures.
Consultation with employees on algorithmic management	63%	Employee engagement reduces the risk of distrust in the digital payment and evaluation system.
Regular audits of algorithmic systems	56%	Audits are needed to check for bias, data errors, and disproportionate impact on certain groups of employees.

Source: Compiled by the authors based on [27].

Pay transparency requirements also change the approach to payroll management. For an enterprise, payment transparency means not only the opening of separate salary ranges, but also the presence of formalized criteria for the formation of official salaries, bonuses, additional payments and compensations. European rules provide for an obligation to respond to an unjustified gender pay gap of more than 5% [28]. Even if a Ukrainian company does not directly fall under the relevant EU requirements, focusing on such standards becomes important for employers who work with European partners, attract international funding or compete for employees in the open labor market.

The systematization of statistical, market, digital and regulatory components make it possible to offer a digital circuit of management of the payroll of the enterprise. Its logic differs from the traditional model, where the payroll is planned mainly on the basis of last year's expenses, staffing and the total budget. The digital circuit provides for constant updating of data and feedback between the labor market, internal personnel structure, financial capabilities of the enterprise, productivity and compliance risks (Fig. 3).

Figure 3 reflects five interrelated levels. The first level consists of external benchmarks: state statistics, data from the Pension Fund of Ukraine, market salary platforms, macroeconomic assessments of the NBU, international reports and legislative requirements. The second level covers the internal data of the enterprise: staffing, official salaries, variable payments, working hours, bonuses, personnel events, productivity and expenses by centers of responsibility. The third level forms the analytical layer: payroll forecast, market comparison of salaries, pay equality analytics, scenario budgeting, and audit of deviations.

The fourth level moves on to managerial decisions: approving the budget of the payroll, changing pay corridors, revising bonus rules, hiring planning, optimizing the number, limiting overtime, or adjusting the payment of deficit roles. The fifth level provides control and audit: verification of compliance with the terms and structure of salary payments, protection of personal data, explainability of algorithmic decisions, consultations with employees and regular review of indicators.

The managerial advantage of the proposed circuit is the transition from passive accounting of the payroll to its use as a tool for balancing costs, productivity and personnel stability. The company is able to see the total amount of the fund and the reasons for its change: inflationary salary increases, expansion of the number of employees, overtime, bonus payments, market adjustment of scarce positions, staff turnover or changes in the structure of business processes.

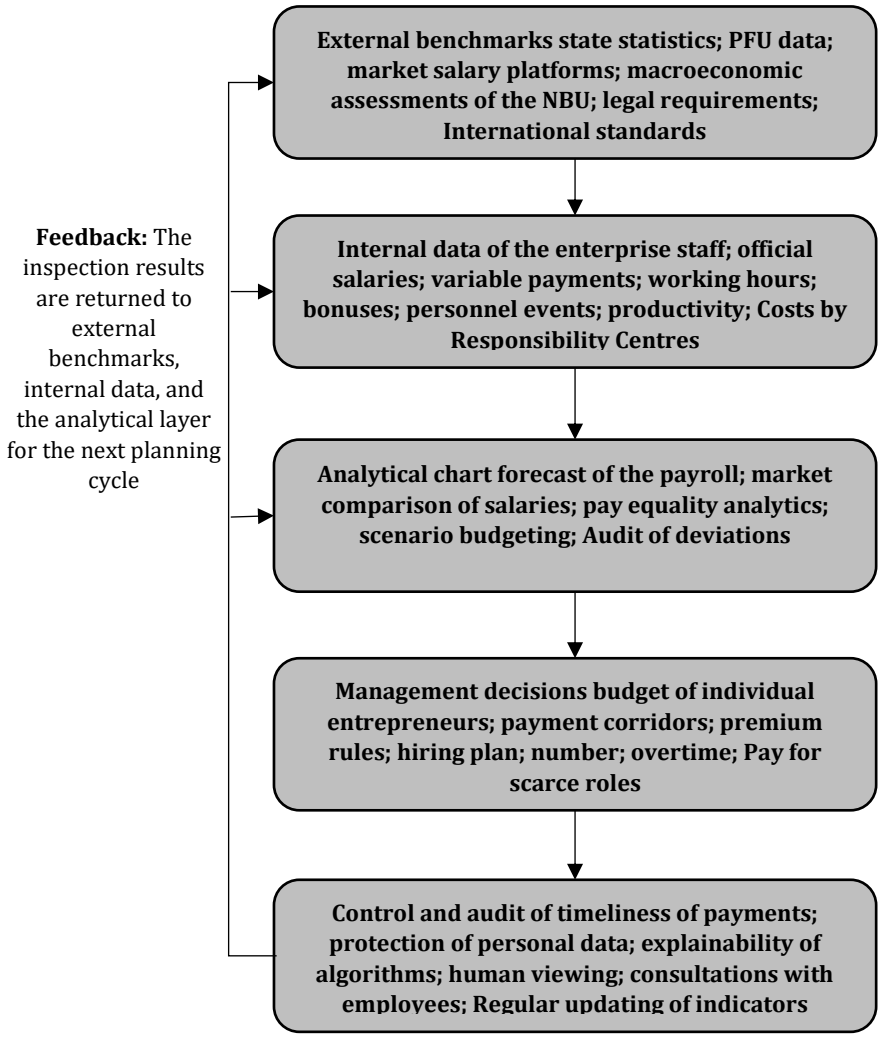

Figure 3. Digital circuit of management of the payroll fund of the enterprise
Source: Compiled by the author.

The practical implementation of such a circuit requires stages. At the first stage, the company must ensure the reliability of salary and personnel data. At the second stage, it is necessary to link the payroll fund with the financial budget, working hours and personnel events. The third is to add a market comparison of salaries and forecasting. At the fourth stage, it is necessary to introduce an audit of payment fairness, transparency of bonus rules, and human control of algorithmic recommendations. In the absence of these elements, digitalization is limited to operational automation and does not change the quality of payroll management.

6. Conclusions

The study substantiates the expediency of considering the payroll of the enterprise as a managed analytical circuit, and not only as an accounting aggregate of accrued wages. Its digital governance covers planning, forecasting, market comparison, payout structure control, payment fairness audits, personal data protection, and regulatory compliance.

Statistical analysis showed a significant increase in the salary base: the average salary for calculating the pension increased from UAH 12,993.56 in 2021 to UAH 20,653.55 in 2025.

Market comparison of salaries confirmed a significant territorial and professional differentiation of salary benchmarks. To manage remuneration, the national average should be complemented by local, professional and remote benchmarks, since large cities, remote segments and scarce professional categories form different competitive conditions. Therefore, digital payroll management should be based on regular updating of external market data and comparing it with internal pay corridors.

The main innovative tools of payroll management have been systematized: automation of payroll calculation, electronic HR document management, digital accounting of working hours, market comparison of salaries, HR analytics and forecasting of the payroll, variable pay by key performance indicators and goals, pay equality analytics, employee self-service and algorithmic management. Their managerial value depends on the ability of the enterprise to link data, rules, control indicators, and responsibility for decisions.

The proposed digital payroll management circuit combines external statistical and market benchmarks, internal personnel and salary data, an analytical forecasting layer, management decisions on the payroll budget, and a compliance control system. It is substantiated that the managerial value of digitalization of the payroll arises under the condition of combining automation with transparent rules, human control of algorithmic decisions and protection of personal data. Algorithmic tools can improve the quality of decisions, but their use in remuneration requires transparency, explainability, auditing, consultation with employees, and human review of decisions that affect remuneration or employment status.

Further research should be directed to empirical verification of the impact of certain digital payroll management tools on productivity, staff turnover, personnel costs and financial results of enterprises. This requires pre- and post-enterprise dashboard microdata before and after the implementation of HR information systems, payroll analytics, pay comparison market, or pay equity analytics.

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