

STRENGTHENING ECONOMIC SECURITY OF ENTERPRISE ON THE BASIS OF INVESTING IN STAFF MANAGEMENT SYSTEM

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ABSTRACT

Article suggests that investing in staff management system is understood as process of investing in staff management system (staff, tangible and intangible assets associated with work and recreation, rest, leisure organization and execution) to meet requirements of company's stakeholders and strengthen its economic security. It has been substantiated that the activation of this process will be facilitated by better understanding by owners of enterprise of benefits they receive from investing in staff management system. A methodology has been identified that could help business owners assess efficiency of this investment in terms of benefits for themselves and other groups of stakeholders. It is taken into account that increase in profit as result of investing in staff management system leads to the emergence of additional dividend payments, income tax, consumption and investment costs as result of distribution of net profit among different groups of stakeholders. Above proposals for investment efficiency assessment in staff management system have practical value for enterprise`s owners and other groups of stakeholders, since given methodology will help to clarify its impact on degree of fulfillment of their requirements. If requirements of all groups of stakeholders are met, then investment will be considered effective and, as result, it will contribute to overall strengthening of enterprise economic security.

Keywords: Economic Security, Efficiency, Staff Management Measures, Investments, Stakeholders

INTRODUCTION

Rapid development of innovative technologies requires specific knowledge, skills and abilities from the staff. In these conditions, the safety of enterprise largely depends on a well-built personnel management system. Such management is achieved by various measures, including systematic monitoring of staff skills, improvement of motivation systems, professional orientation of staff and others. Improving the staff management system is still a priority for many enterprises in the post-Soviet space to increase the level of staff's education and training. However, in modern conditions this is not enough. Today, staff management of the world's leading companies is system immersed in digital environment. Despite this, experts emphasize that companies from underdeveloped countries with cheap labor (such as Ukraine, for example), first of all, need to invest in staff management systems development (including financing of the development of personnel itself), and only then – in technology (Hvozdyk, 2015). Unlike financial, logistical and other resources, staff is specific object of management. From the

standpoint of enterprise economic security, as noted by Mishchuk Ie., it is both source of threats and object of protection (Mishchuk et al., 2021). It is obvious that inefficient staff management will eventually lead to damages, losses and bring He Company into hazardous area of management. This is due to a number of causal relationships. One of the simplest examples can be described as follows:

“low staff management quality → low level of labor organization, insufficiently qualified staff, etc. → low work results quality (for example, low productivity, high shortages, miscalculations of managers in financial policy, inefficient decisions) → rising costs, reduced income → reduced profits up to receiving losses → transition of enterprise to hazardous functioning zone.”

Thus, the danger of situation due to poor quality staff management system is manifested in the fact that not only reduces the efficiency of individual business processes, but also worsens the entire enterprise activities. Therefore, to prevent this, it is necessary to invest in staff management system. Visually, the process of interaction of investment in the staff management system and economic security can be represented as shown in figure 1.

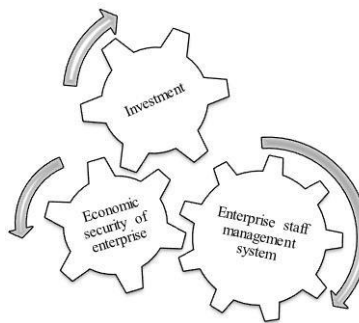


FIGURE 1
VISUALIZATION OF INVESTMENT INTERACTION IN STAFF MANAGEMENT SYSTEM AND ENTERPRISE ECONOMIC SECURITY

Today in the world practice there are following problems that constrain investment in staff:

- From the point of view of employers: Lack of interest in investing in staff due to vague vision of these investments efficiency; financial resources lack; uncertainty about employee loyalty; misunderstanding of causal link between investment in staff and strengthening economic security; long payback period for staff investments; the difficulty of determining the costs that must be attributed to investment in staff;
- From the point of staff's view: Insufficient level of encouragement of professional development; insufficient motivation to improve their professional level;
- From methodological point of view: The lack of a single methodology for investment efficiency assessing in staff management system.

Thus, the purpose of the article is to develop proposals to strengthen the enterprise economic security through investment in the staff management system.

LITERATURE REVIEW

In scientific literature over the past 18 years, you can increasingly find works on investment in staff. Traditionally, scientists understand them as all kinds of property and intellectual investments, as well as time spent on training, professional and personal

development, health care of employees in order to further increase their productivity and loyalty to organization, and as a consequence, - increase in the company's profit and/or obtaining a social effect (Momcheva, 2013; Golovanova & Hrinyuk, 2016). The following organizational elements are also widely covered and described by specialists in staff management: improvement of staff training system at the enterprise, its direction on elimination of a gap between needs and requirements to the level of professional training and available qualification (Lopatynskiy, 2020); development of training for mastering new techniques and methods of performing labor operations; improving staff training in priority areas of enterprise development; development of programs of primary training and retraining in accordance with the tasks of enterprise and the specifics of work performed; training system development to improve general qualification of managers and specialists (Krushelnytska & Melnychuk, 2007; Momcheva, 2013; Hvozdyk, 2015). Additionally, the following main measures are used in personnel control of management staff: creation of mechanism for rotation of management staff at each hierarchical level; determination of priority for the enterprise areas of self-education of the personnel management reserve; identification of the need and organization of obtaining the MBA degree by key managers; improving the system of selection of candidates for the reserve for replacement of managerial positions and reserve management (Lozova & Demchenko, 2017).

At the leading enterprises that have branches in economically developed countries, the concepts of continuous staff training have been introduced using the following basic forms: organization of internships, business trips to training centers, to other similar enterprises; courses and trainings at the enterprise; courses and trainings in training centers and training companies. In addition, the main priorities in working with staff are the following: the formation of proactive and loyal to the company employees, including young people interested in its prosperity, through their participation in management or ownership, business career planning, the realization of their abilities in the process labor; coordination of staff motivation criteria with the company's goals; creating conditions for non-professional careers of employees who want to prove themselves in work in temporary projects with a corresponding increase in wages (Kaplan, 2010; Hvozdyk, 2015). An important element of the staff management system is also called measures to maintain efficiency by reducing morbidity and increasing the productive period of life. At the same time, due to low labor protection costs (which leads to a high level of occupational injuries), lack of funding for preventive measures, diagnostics and rehabilitation; lack of health and fitness centers, underfunding of environmental programs at many enterprises there is deterioration in the health and safety of their staff (Mishchuk et al., 2020, 2021). During 2019-2021, the issue of management, including organization, provision of remote workplaces, remote work in general, as well as the promotion of distance learning of employees became extremely important. Thus, the measures considered are quite well covered. They represent areas of possible investment in the staff management system.

Possible types of investment in the staff by researchers are divided into the following groups: the education cost (including general and special, formal and informal training in workplace); health care costs (costs of disease prevention, medical care, dietary nutrition, living conditions improvement); mobility costs, due to which workers migrate from places with relatively low productivity to places with relatively high (Becker, 1962; Schultz, 1968; McConnell et al., 2011; Golovanova & Hrinyuk, 2016). However, we believe that investing in staff is only part of investing in the overall management system. Therefore, the considered works reveal only a fragment of the question. In addition, in the scientific literature, the consequences of investing in staff are often called increased productivity and staff loyalty персоналу (Pitukhin & Yakovleva, 2012; Golovanova & Hrinyuk, 2016), as well as improving the enterprise efficiency as a whole (Risin, 2009; Momcheva, 2013). However, this is by no

means a complete list of possible consequences. Moreover, scientists narrow the possible results to changes in staff or in enterprise. However, it is likely that improving the staff management system will have implications for other stakeholder groups.

It is also important that when disclosing the consequences of investing in staff management system, it is necessary to take into account changes in the economic security of the enterprise. And this aspect is little considered by scientists. For the most part, strengthening the economic security of the enterprise is considered through increasing the innovative activity of staff, which involves the use of new technologies in training and retraining, use of new methods of organization and motivation in personnel management, integrated use of information, technological, intellectual resources and application of innovative ideas product quality, introduction of innovation management, etc. (Hvozdyk, 2015; Mishchuk et al., 2021). This is really important, but not enough. Therefore, we propose to understand investment in the staff management system as the process of investing in staff management system (staff, tangible and intangible assets related to work, recreation, rest, leisure organization and execution) to meet the requirements of stakeholders and strengthen its economic security.

METHODOLOGY

The study used general scientific theoretical methods: generalization, critical analysis, grouping - to analyze the views of economists and practitioners on the object of research, formulate conclusions of content analysis of primary sources relate to staff investing. In addition, in the process of research, analysis and synthesis through induction and deduction, the best methodology was selected and adapted to assess the investing efficiency in the staff management system; as well as these methods were used in development of a scheme to strengthen the enterprise economic security due to investment in the staff management system.

RESULTS AND DISCUSSION

The largest investment object in Ukraine is tangible assets, among of which more than a third are machinery, equipment and inventory (table 1).

Investment objects	January- March	January- June	January- September
At mln.UAH			
Total	78178.5	191133.0	331665.9
Investment in tangible assets	74453.3	182098.0	316556.9
Residential buildings	7668.6	17588.5	33450.3
Non-residential buildings	8851.7	23922.8	45148.2
Engineer installations	17208.0	45418.9	82799.9
Machines, equipment and tools	26394.4	62350.5	102396.1
Transport vehicles	10342.6	23484.6	36807.8
Land	224.9	793.0	1333.2
Long-term biological assets of plant-growing and animal breeding	1197.9	2327.3	3554.8
Other tangible assets	2565.3	6212.4	11066.6
Investment in intangible assets	3725.2	9035.0	15109.0
Of them			

Software and databases	2135.0	5294.8	8091.7
Percentage of total			
Total	100.0	100.0	100.0
Investment in tangible assets	95.2	95.3	95.4
Residential buildings	9.8	9.2	10.1
Non-residential buildings	11.3	12.5	13.6
Engineer installations	22.0	23.8	24.9
Machines, equipment and tools	33.8	32.6	30.9
Transport vehicles	13.2	12.3	11.1
Land	0.3	0.4	0.4
Long-term biological assets of plant-growing and animal breeding	1.5	1.2	1.1
Other tangible assets	3.3	3.3	3.3
Investment in intangible assets	4.8	4.7	4.6
Of them			
Software and databases	2.7	2.8	2.4
Notes: in some cases, the sum of the components may not be equal to the result due to rounding data. Source: data from (State Statistics Service, 2021)			

At the same time, staff or staff management system at the state level are not even considered as investment objects. This state of affairs needs to change. We are convinced that if business owners are more aware that investing in human resource management system can bring them additional benefits, this process could be intensified. In this regard, we consider it appropriate to justify a methodology that could help business owners assess the efficiency of this investment in terms of benefits for themselves and other interested parties. Obviously, investing in the staff management system must have a specific purpose. After all, staff management for the sake of management is absurdity. One of the priority goals of such investment should be to strengthen the enterprise economic security. Therefore, the staff management system must be built in such a way that as the result of its operation the requirements of all groups of stakeholders are met. This means that not only the company should receive profits and other benefits, but also the main stakeholders should also receive their economic benefits: shareholders – dividends, employees and top managers – decent wages, trade unions – the maximum wage of all employees, financial institutions and other borrowers – interest on loans, etc. Only if the requirements of all stakeholder groups are met will the company be in the economic security zone, as stated in (Mishchuk et al., 2021). We visualize these conditions with the help of figure 2.

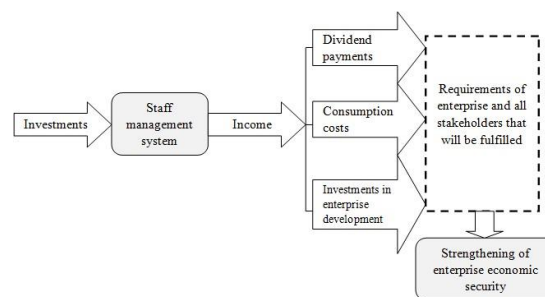


FIGURE 2
SCHEME FOR STRENGTHENING OF THE ENTERPRISE ECONOMIC SECURITY

AS RESULT OF INVESTMENT IN STAFF MANAGEMENT SYSTEM

As a result of the effective staff management system, company should receive profit that will allow for dividend payments, consumption expenditures and investments in enterprise development. In Ukraine, most companies accrue and pay these payments in the following periods. If the assessment is carried out only for a single current period, the dividend payments, consumption expenditures and investments paid in the current period for previous periods are already included in the financial statements of the enterprise. However, when assessing the cost-effectiveness of investing in staff management system, some of dividend payments, consumption expenditures and investments may not be taken into account. For example, if the owner of enterprise aims to invest in the staff management system to increase dividend payments, then these payments are not taken into account in the investment project. At the same time, other types of consumption costs must be planned and taken into account, especially if under collective agreements, statutory documents or for other reasons, the payment of consumption and investment costs is mandatory for the company (Nusinov et al., 2013).

As a result of the study, we concluded that to assess the economic efficiency of investing in the staff management system, it is advisable to use the methodology shown in (Nusinov et al., 2013). To do this, you need to calculate several options for indicators, separately for each purpose of investing in the staff management system. In this case, dividend payments, consumption expenditures and investments, which reflect the requirements of stakeholders and are the purpose of the investment, should not be taken into account in such investment project. All other expenses and payments, on the other hand, must be taken into account and their net cash flow must be reduced by their amount. If these costs are not planned and agreed with all stakeholders in advance, there is a high risk that real cash flow will be lower than planned, or the company will increase its liabilities for unaccounted payments and costs and, consequently, economic security will deteriorate.

The investing risks in staff management system are the following:

- Uncertainty of the final result;
- The probability of a low level of return on staff;
- Dishonesty on the part of an employee who does not seek to work at the company for a long time, but wants to use his funds (for example, to get an education at the expense of the company, improve their skills, etc.);
- Enticing the employee by competitors and his transition to them;
- Ambiguity in determining the composition of costs that will be included in investments in the staff management system;
- Long payback period;
- Resistance to change on the part of middle managers and ordinary workers.

Traditionally, the evaluation of investment efficiency is carried out from the point of view of all stakeholders in general. The most common indicator of economic efficiency of investment is net present income, which is usually reduced only by additional payments that reflect the requirements of one of the groups of stakeholders – the state in the form of income tax. At the same time, it is not taken into account that all other groups of stakeholders have their own requirements, so for each of them it is advisable to assess the effectiveness of investing in the staff management system separately. To do this, all payments and expenses that do not reflect the requirements of the particular group from whose point of view the valuation is performed should be accounted for as additional negative cash flow and its net income should be reduced accordingly. If it is impossible to achieve the planned level of economic efficiency of

investment from the point of view of all groups of stakeholders, the company should choose one of the following options:

This will allow the company to prevent the emergence of dividend payments arrears, consumption and investment costs and the deterioration of enterprise economic security. It should be noted that these payments and expenses, like all others, are subject to discounting, but they must be taken into account in the next period in which they are paid. Thus, the adjusted value of net present value (NPV_{abbr}) is determined by the formula (Nusinov et al., 2013):

$$NPV_{abbr} = NPV - \sum_{t=1}^{Tpr} \frac{Cadd_t}{(1+q)^t}, \quad (1)$$

Where the NPV – net present profit, determined by traditional methods, USD;

$Cadd_t$ – additional costs and payments that do not reflect requirements of certain stakeholders group in the t-th period, USD;

Tpr – NPV calculation period of project on improvement of staff management system, year.

Similarly, other investment efficiency indicators can be adjusted: the profitability index, payback period and the internal rate of return. Consider how this technique will be applied to specific example. As initial data we will use data of PJSC "ArcelorMittal Kryvyi Rih" (ArcelorMittal Kryvyi Rih, 2021). This company is one of the largest employers in Ukraine. The level of the average salary in PJSC "ArcelorMittal Kryvyi Rih" is one of the largest employers in Ukraine. The level of average wages in PJSC "ArcelorMittal Kryvyi Rih" is one of the highest among the largest enterprises of mining and metallurgical complex of Ukraine. PJSC "ArcelorMittal Kryvyi Rih" has a policy in field of staff management, which is the same for all enterprises of the corporation. Let's consider what can be an investment project to improve the personnel management system. The project envisages increase in salaries for all categories of staff by 15%-25%; 100% remuneration for each year; partial compensation of utility payments to employees whose salary does not exceed UAH 15000 (or USD 555); material assistance in the amount of monthly salary to all employees; providing employees of the enterprise and members of their families with vacation vouchers; improving the maintenance of social facilities (capital and current repairs) of recreation centers, health camps for children and the Palace of Culture. The total investment in the project is \$ 270 million USA. The net present value of the project is \$ 86.5 million. In the table 2 it is shown the results of investing economic efficiency assessing in the staff management system, taking into account the interests of different groups of stakeholders.

Stakeholder groups	Net present income, USD million	Yield index, shares of units	Internal rate of return, %	Discounted payback period, years
Owners (shareholders)	74.0	1.44	37	2.63
Top managers	53.0	1.32	30	2.74
Trade union organizations	46.0	1.28	28	2.77
Financial institutions and other borrowers	39.5	1.24	26	2.80
Excluding dividend payments, consumption expenditures	86.5	1.52	44	2.55

According to table 2, the largest value of net income from the position of owners (\$ 74 million), in second place – the assessment from the position of top managers (\$ 53 million), in third place - an assessment from the position of trade unions (\$ 46 million) and in last place - from the standpoint of financial institutions and other borrowers (\$ 39.5 million). This is due to the fact that creditors deduct almost all dividend payments, consumption costs, both wages and dividend payments. At the same time, owners (shareholders) and trade unions calculate only one type – the labor costs or dividend payments, respectively. The results of the economic efficiency evaluation of investing in staff management system, both with and without costs and benefits, representing the interests of different groups of stakeholders, showed that in both cases, the investment project was effective, but from the point of view of certain stakeholder groups, the economic efficiency indicators decreased slightly. But in general, it can be concluded that the studied investment project is effective from the standpoint of all stakeholders and can be accepted for implementation.

CONCLUSION AND RECOMMENDATIONS

Thus, the article proposes to understand investment in the staff management system as the process of investing in the staff management system (staff, tangible and intangible assets related to organization and performance of work and leisure) to meet the requirements of stakeholders and strengthen its economic security. It is substantiated that the intensification of this process will be facilitated by better understanding by the owners of the enterprise of the benefits they receive from investing in the staff management system. A methodology has been identified that could help business owners evaluate efficiency of this investment in terms of benefits for themselves and other stakeholder groups. Traditionally, economists use the indicator of economic efficiency of investment – net present income, which in practice is usually reduced only by additional payments that represent the interests of one of the groups of stakeholders – the state in the form of income tax. At the same time, it is not taken into account that all other groups of stakeholders have their own interests and goals, so it is advisable to evaluate efficiency of each of their groups separately. However, all payments and expenses that do not represent the interests of the stakeholder group from whose point of view the valuation is performed should be accounted for as additional negative cash flow and the net present income should be reduced accordingly. If it is not possible to achieve the planned level of cost-effectiveness of investing in the staff management system from the point of view of all stakeholder groups, the company must agree on the possibility of reducing costs that represent the interests of different stakeholder groups, or consider an alternative investment.

These suggestions for evaluating the efficiency of investing in staff management system have practical value for business owners and other stakeholder groups, as these techniques will help determine its impact on the degree of compliance with their requirements. If the requirements of all groups of stakeholders are met, the investment will be considered effective and, as a consequence, it will contribute to the overall strengthening of economic security of the enterprise. The direction of further research is to identify the most adequate method of assessing economic security and to clarify the correlation between the amount of investment in staff management and changes in the level of security.

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