

UPDATE OF MARKETING AND KPI APPROACHES TO IMPROVING STAFF MOTIVATION IN AGRICULTURAL BUSINESSES TO INSURE FINANCIAL AND ECONOMIC SECURITY

Nataliia Bondarchuk¹, Aljona Minkovska², Lesia Kriuchko³

Abstract. *The objective of this article* is to summarize theoretical provisions and develop practical recommendations for improving staff motivation in agricultural businesses to insure financial and economic security (including cooperative farms). *Methodology.* The following scientific methods and techniques were used in addressing this objective: analysis and synthesis (to study the essence of theoretical categories of "motivation" and "competency profile"), *the calculation and constructive method* (to define work performance of agricultural business employees); and *the monographic method* (to summarize the conclusions).

Practical Implications. The article states that the main management objective of agricultural businesses at their current development stage is to motivate employees to work effectively in order to organize high-quality and efficient work and insure their financial and economic security. Existing personnel motivation models and systems do not allow for a complete use of all the possibilities of labor resources of agricultural businesses and need to be reviewed. The main issue in the implementation of motivational mechanisms by agricultural businesses is low wages and a lack of interest of labor resources in achieving high performance both in production and product sale. Personnel marketing is a special type of management activity aimed at the most effective planning of staffing needs, provision of staffing, development and use of staff, and employee motivation in order to achieve business goals and meet staffing needs. This article suggests using the following algorithm in agricultural businesses (including cooperative farms) to develop a staff motivation system based on the marketing approach: studying the human resources of the business and identifying qualitative and quantitative staff needs; conducting a personnel audit; monitoring the labor market; streamlining the job profile; identifying competitors in the labor market; researching ways to attract staff; implementing professional development programs etc.

The article furthermore considers the use of the KPI method, which will allow applying a differentiated approach to wages and identify employees with the lowest efficiency and performance, and optimize the number of labor resources of agricultural businesses, and suggests their use by such businesses. For agricultural businesses, the use of 3–7 KPIs per employee is suggested. The article offers indicators that demonstrate personal performance.

The article uses the KPI methodology together with the employee's competency profile. The combination of KPIs and the competency profile can provide an opportunity to assess the quantity and quality of work of each employee. A competency profile is defined as follows: a list of characteristics that correspond to each position in an agricultural business that comprises key and professional competencies. A five-point scale has been developed to assess the competencies of labor resources.

Value/originality. The combination of a KPI system with an assessment of the competency of an individual employee and the marketing approach will ensure transparency in using labor resource stimulation mechanisms; form a

Corresponding author:

¹ Dnipro State Agrarian and Economic University, Ukraine

E-mail: bondarchuk-nv@ukr.net

ORCID: <https://orcid.org/0000-0002-0418-5239>

ResearcherID: S-7492-2019

² Dnipro State Agrarian and Economic University, Ukraine

E-mail: natan23@ukr.net

ORCID: <https://orcid.org/0000-0002-9414-4210>

ResearcherID: AAC-8568-2022

³ Dnipro State Agrarian and Economic University, Ukraine

E-mail: kriuchko.l.s@dsau.dp.ua

ORCID: <https://orcid.org/0000-0002-7490-3523>

ResearcherID: AAH-6301-2021

new high-quality motivation system in which the end result expressed as the salary amount will depend on the quantity-quality labor force performance indicators; and allow for the differentiation of bonuses for each individual employee depending on the quality of performance of his/her job responsibilities and changes in his/her labor competencies.

Key words: labor resources, agricultural businesses, financial and economic security, cooperative farms, staff motivation, marketing staff.

JEL Classification: M12, M21, J21, J54, Q13

1. Introduction

Modern agricultural businesses of any form of ownership operate under very dynamic changes in the external environment, which require them to respond accordingly. Both agrarian production equipment and technologies are evolving so that the role of a human as the main productive force recedes into the background while the use of modern technology becomes a condition for a high-performance production. At the same time, the importance and role of education and existing competencies of labor resources, which have to ensure the option of using advanced technologies and modern equipment, are growing. The role of sustainable agriculture (careful treatment of the environment and minimization of harmful effects during the implementation of agricultural production) is increasing.

Currently, the efficiency of agricultural businesses (including cooperative farms) depends not only on their production volumes but also the efficiency of sales in the market. Such companies have an opportunity to export their products abroad. All this necessitates a revision of the conditions of using labor resources of the business and an improvement of personnel motivation mechanisms.

Thus, the main management objective of agricultural businesses (including cooperative farms) at their current development stage is to motivate their employees to work effectively in order to organize high-quality and efficient work. Unfortunately, existing personnel motivation models and systems do not allow for a complete use of all the possibilities of labor resources of agricultural businesses and need to be reviewed.

The main issue in the implementation of motivational mechanisms by agricultural businesses (including cooperative farms) is low wages and lack of interest of labor resources in achieving high performance both in production and in product sale. In our opinion, the salary needs to be a key element of any motivational mechanism. At the same time, the increase in the level of remuneration must be justified and depend on the performance of each employee.

Modern personnel management issues require the use of innovative solutions and the adaptation of foreign experience to domestic conditions. Constant changes in the market environment make marketing

an organic component of a personnel management system for businesses. Therefore, the application of marketing and KPI approaches to personnel management should ensure the achievement of strategic goals of agricultural businesses and serve as a tool to increase their competitiveness.

The objective of this article is to summarize theoretical provisions and develop practical recommendations for improving staff motivation in agricultural businesses.

2. Improving personnel efficiency in agricultural businesses to ensure financial and economic security: motivating factors

Incentives are levers that provoke the action of certain motives. An efficient motivation of activity and a stimulation system help strengthen the labor potential of any business and create favorable conditions for employees who are further able to perform their functional responsibilities. This contributes to the creation of an adequate and effective motivational mechanism for highly productive work the primary objective for forming market relations (9). Agricultural businesses (including cooperative farms) face the issue of security and development of the labor resource reproduction process so as to involve such resources in their production activities, as well as the issue of resource motivation to achieve high results.

The motivation process is a complex and ambiguous one. There are many different motivation theories that seek to explain this phenomenon. Some of such theories focus on the analysis of the factors that underlie motivation rather than on the motivation process itself (Maslow's Hierarchy of Needs, Alderfer's ERG Theory, Herzberg's Two-Factor Theory, etc.). Other theories reduce everything to a process of motivation, description, and prediction of motivational process results but do not cover the content of motives (the Expectations Theory, the Theory of Justice, the Risk Choice Model, and Douglas McGregor's X and Y Theory).

There is no doubt that labor activity motivation cannot be effective without the satisfaction of material needs and the emergence of material interest in labor resources. Material motivation of labor activity should

be considered a derivative of the complex action of a complex of macro- and microeconomic factors:

- a) salary levels;
- b) the presence of a direct dependence of the salary level on the quantity, quality, and results of work;
- c) salary differentiation in the business and society as a whole;
- d) personal income structure;
- e) material security of cash income (Kolot, 2000).

At the same time, material motivation is not limited to manipulations with the main and additional salary; they can include the provision of health insurance or paid leaves of absence to sanatoriums. This motivation method solves the issue of physiological stress on employees and gives a strong incentive to "hold onto" the job in question. The only disadvantage of such measures is their high implementation costs, which makes them available only to large highly profitable businesses (Shashina, Tulchinsky, Fedotov, 2019).

The main defect of the current remuneration practice of agricultural businesses (including agricultural cooperatives) is that the salary amount is generally not related to the final results of activities in a particular production area where the employee can actually influence them. Agricultural businesses are unable to create centralized incentive funds; therefore, the units that work better cannot implement the motivational mechanisms for their employees. This means that no person will be interested in working in an agricultural business to the fullest, show initiative, and take care of the means of production. Therefore, the study of the way various factors influence the possibility of material motivation of labor resources of agricultural businesses never loses its relevance and significance.

3. Staff motivation approaches in agricultural businesses

The management's ability to correctly identify personnel needs is at the heart of an effective staff motivation system. Of course, timely identified and formulated needs of employees of agricultural businesses (including cooperative farms) must be backed up by effective motivation programs and activities. It is also necessary to realize that staff needs tend to transform and update new needs. Ignoring the needs of employees ultimately leads to high turnover and mass layoffs.

In practice, there are three main approaches to motivating business staff: the marketing approach, the resource-functional approach, and the KPI approach (Motivation: Google Books Ngram Viewer).

1. The marketing approach is based on the gradual implementation of the corporate policy of the business. The main motivating factor for the employee are teamwork, an opportunity to be involved in the implementation of a common mission, ideology, and relations for which the agricultural business operates.

Within the framework of the studied approach, the correct formation of the company's mission is the foundation of its personnel management system.

2. The KPI approach, or the Management by Objectives approach, is a structured methodological approach that helps focus the management of agricultural businesses on the strategic objectives of the organization and their effective achievement. In this context, the objective should be defined as a clearly articulated optimal state of economic entities. In this case, the tool used to measure the objective achievement degree is an indicator called KPI (Key Performance Indicator), which is a key indicator of an activity. KPI-based management allows forecasting business activity results and forming the events promoting their improvement.

KPI-based management is based on the following principles:

- employee objectives must be correlated with the objectives of the business;
- objectives are formed starting with the general purpose and ending with the private one;
- business objectives are developed in a combination of the management and employees;
- the motivational program and the material incentive system are based on identified employee objectives in the business (D'oloh, 2013).

4. Using the marketing approach to staff motivation in agricultural businesses

Modern marketing is a methodology of market activity that is used to create production and organize sales. Increasing its role in business management is associated with objective trends of increased competition, the dynamic nature of the external environment, frequent changes in tastes and needs of consumers (Lizanets, Rusin, 2010).

The advantage of staff marketing to businesses is the timely identification of staffing needs, as well as trends in the development of the labor force in the labor market; for employees, the advantage is the timely identification of their needs and interests and, therefore, the formation of the correct staff motivation system.

One of the founders of this approach was Kevin Thompson, who raised the question of interaction between marketing and staff in his 1989 work. Thompson formulated his theory as follows: a business employee is an internal part of the organization and must fully share the principles, philosophy, and values of the business.

Personnel marketing is a special type of management activity aimed at the most effective planning of staffing needs, provision of staffing, development and use of staff, and employee motivation in order to achieve business goals and meet staffing needs.

Personnel marketing activities should include both an analysis of the situation in the sectoral labor market and influencing factors (the external business environment) and an analysis of the corporate job market and the corporate labor market (the internal business environment).

For example, the work (Sardak, 2010) states that the following key points should be accounted for when using the marketing approach to staff motivation:

- there can be no incentive system that motivates all employees equally;
- any incentive system should be designed to fit a specific employee or a specific group of employees with similar basic needs (or the general system should be individualized);
- constant monitoring of the basic staff needs and motivations is necessary.

Accordingly, the use of the following algorithm in agricultural businesses (including cooperative farms) to develop a staff motivation system based on the marketing approach is suggested:

- studying the human resources of the business and identifying qualitative and quantitative staff needs;
- conducting a personnel audit;
- monitoring the labor market;
- streamlining the job profile;
- identifying competitors in the labor market;
- researching ways to attract staff;
- implementing professional development programs;
- analyzing the effectiveness of the implemented staff marketing activities.

In order to ensure the effectiveness of the developed algorithm of the personnel motivation system, agricultural businesses should ensure the provision of maximum information to their employees about new opportunities to meet their needs and management’s measures aimed at their implementation.

5. The KPI methodology and staff motivation in agricultural businesses

Staff motivation is one of the most important functions of business managers and owners. After all, the results of their work, and hence the success of the entire business, largely depend on the morale of their employees. Therefore, encouragement is one of the ways to motivate and inspire.

In order to increase the level of motivation, we will consider the possibility of using the KPI method, which will allow us to apply a differentiated approach to remuneration, to identify employees who demonstrate the lowest performance, and to optimize the number of employees of agricultural businesses.

The application of the KPI method will increase the level of control over labor force activities and differentiate the assessment approaches for each individual employee. Based on KPIs, agricultural businesses (including cooperative farms) will be able to build their own employee remuneration system / dominated by the additional salary instead of the main one. At the same time, the additional salary level should be economically justified. KPI provides an opportunity not only to differentiate labor resources according to the remuneration level but also to assess the share of participation of each individual employee in the overall results of the agricultural business.

The use of 3–7 KPIs per employee of an agricultural business is suggested (namely: no more than 7 KPIs for the director; and 3–5 KPIs for employees). The main requirement for indicators is their measurement capability. Different KPIs need to be developed for different personnel categories.

For example, directors’ indicators should reflect the performance of the entire agricultural business

Table 1
KPI-based system for agricultural businesses

Employee Category	General Characteristics of Indicators	Indicators
Senior managers	KPIs should reflect the efficiency of the entire agricultural business	Profits of the business. EBITDA. Market share. Net present value or net discounted income. Occupational safety.
Middle- and low-level managers	KPIs should be related to the work (success) of the relevant branch, subdivision, or department	Productivity. Sale/purchasing plan performance. Department cost budget savings. ROI in production. Receivables. Staff turnover level.
Specialists (ordinary employees)	KPIs should demonstrate personal performance	Implementation of planned sale/production indicators. Compliance with quality and terms of resolution of set objectives. Satisfaction of internal clients with the work of a particular employee

Source: developed by the author

and be related to the work (success) of the relevant branch, subdivision, or department. On the other hand, employees' indicators should demonstrate their personal performance (Table 1).

At the same time, indicator performance deadlines are set (month, quarter, half-year, or year); and the necessary actions of the employee to achieve the objectives are determined.

Monthly bonuses are paid to employees of such subdivisions as sales, marketing, and logistics, as it is their work that directly affects the results of the business. Quarterly and semi-annual bonuses are used to motivate department heads (middle managers) and employees of service departments. Annual bonuses are paid to senior managers (directors of subdivisions). The amount of the KPI-based bonus (the variable part) can range from 50 to 200% of the permanent part (salary) and depends on the position of the specific employee and the affiliation with a specific subdivision (Table 2).

This coefficient system can be modified depending on the strategic objectives of each individual agricultural business and depending on the conditions and circumstances of economic activity. If the business does not intend to increase production, the coefficient can be capped at "1". At the same time, a coefficient of 1.2–2 will motivate each individual employee to significantly exceed the targets.

Using the coefficient system requires the development of quantitative and qualitative indicators for each staff unit with reference to specific management conditions rather than the normative ones set by the state. To this end, an appropriate matrix of planned indicators should be developed for each job position based on the data of the agricultural business (including cooperative farms) for previous years and accounting for current changes in the business.

When setting share values for KPIs, it is important to consider the following: the more important a criterion for achieving a more global objective, the greater its share; the share of KPIs should be set to account for KPI priority (i.e., starting with the most important ones); the share of a single KPI may not exceed 50% nor be less than 5%.

The KPI system is created from the top down (i.e., from the large-scale objectives of the agricultural business as a whole to the tasks facing the individual

employee). In order to ensure their relevance, KPI indicators are reviewed and adjusted on a quarterly basis due to the changes in agricultural business processes, strategic objectives, and the external environment. In such cases, an unscheduled change in the KPI system and establishment of new coefficients (indicators) may be carried out. Such changes must also be accompanied by a change in the functional responsibilities of the individual employee and by the optimization of existing performance indicators.

When implementing the KPI method and the coefficient system, it is necessary to take into account not only quantitative indicators of the implementation of planned indicators but also qualitative ones. This approach should ensure a balance of interests of the individual employee and the management of an agricultural business in achieving the common objectives, namely: the production of high-quality goods and the improvement of performance of the business.

The application of the KPI method is based on the use of another motivational tool, namely: the competency profile. The combination of KPIs and the competency profile can provide an opportunity to assess the quantity and quality of work of each employee. The use of the competency profile by agricultural businesses will allow singling out the most active, responsible, and purposeful resources, which share the strategy of the business and are prepared to participate in its development, from among total labor resources.

A competency profile is defined as follows a list of characteristics that correspond to each position in an agricultural business that comprises key and professional competencies. Furthermore, management competencies should be developed for middle and senior managers. These profiles must be approved by the management of agricultural businesses, who must be guided by them when selecting and distributing labor resources.

Key competencies apply to all positions without exception and should reflect the level of disciplinary qualities of each individual employee with respect to compliance with internal labor policies, occupational safety rules etc. Such competencies include the presence of interest in the workplace and the profession, the ability to qualitatively perform the set tasks, the level of propensity towards conflict and

Table 2

The coefficient-setting system for the KPI method application in agricultural businesses

Planned Indicator Performance (%)	Coefficient Value	Coefficient Meaning
≤50	0	An unacceptable situation
From 51 to 89	0.5	A low level of employee's work
From 90 to 100	1	The baseline performance scenario for planned indicators
From 101 to 120	1.2	Plan over-fulfillment
≥120	1.5–2	The best worker

Source: developed by the author

team spirit, ability to cope with stress etc. They are revealed, as a rule, during the interview when hiring an employee and during the performance of his/her official duties. Professional competencies should reflect the degree of mastery of the means of work, the presence of specialized education, work experience etc. Management competencies are inherent in the different levels of managers of agricultural enterprises (including agricultural cooperatives) and comprise the ability and skills required to work with employees; the ability to resolve conflict situations, assign tasks to employees, and control their implementation; and the ability to adopt, and bear responsibility for, management decisions.

We suggest assessing competencies based on each employee's certification results, which are used to compile the employee's competency profile. Certification results in the determination of a certain number of points to be calculated as follows:

$$K = k_1 \times \Sigma m_{1a} + k_2 \times \Sigma m_{2b} + k_3 \times \Sigma m_{3c}, \quad (1)$$

where K is the total number of points for each employee;

k_1 , k_2 , k_3 are the adjustment factors for each competency group (set at each individual agricultural business depending on its activity profile);

Σm_{1a} , Σm_{2b} , Σm_{3c} are total amounts of points for each competency group.

In order to assess the competencies of labor resources, a five-point scale is suggested: "1" corresponds to the lack of skills and abilities (a critical level); "2", to the presence of skills and abilities that do not fully correspond to the position and work performed (an unsatisfactory level); "3", to the presence of skills and abilities that fully correspond to the work performed (an intermediate level); "4", to the presence of skills and abilities that exceed the required level (an optimal level); and "5", to the presence of knowledge, skills, and abilities that significantly exceed the level of work performed (a high level).

Therefore, the main benefits that can be obtained by agricultural businesses (including cooperative farms) upon the successful use of the KPI tool in combination with the competence assessment system are as follows:

1. Construction of a transparent and objective system of staff work assessment and coordination of their objectives with the business's strategy. A transparent and objective performance assessment system increases the motivation of labor resources to increase their productivity and to achieve strategic objectives of the agricultural business. The defined indicators should be specific, measurable, achievable, result-oriented, and time-limited. Requirements for labor resources for which the KPI method is used should be as follows:

understanding of specifics and strategy of the business, as well as production processes; knowledge of both the basis of the economy and the overall management of the company; and knowledge of office-specific functional responsibilities.

2. Establishment of a feedback system that allows each employee to receive an assessment of their own activities based on objective criteria. In turn, the feedback system will allow the labor resources of the agricultural business to understand how the remuneration system will change.

3. Ability to adjust the activity of labor resources during the year. To this end, the indicator calculation method must be signed off by the management and the financial service of the business when establishing the KPI, and responsibility for the calculation of each indicator must be assigned to a functional subdivision or to a specific specialist. This can be done by using the KPI map that specify the weight and levels of each of them, as well as deadlines and required measures; or by using a management accounting information system that allows for an automatic calculation of KPIs.

6. Conclusions

Therefore, the stability of highly qualified labor collectives, the increase of labor productivity, and the moral and material condition of each employee and the collective as a whole all depend on an effective system of motivation of labor resources.

The implementation of the marketing approach to staff motivation into activities of agricultural businesses should increase personnel management efficiency and their competitiveness.

The application of the KPI method in agricultural businesses will provide an opportunity to apply a differentiated approach to remuneration, to identify employees with the lowest performance, and to optimize the number of labor resources of agricultural businesses and insure their financial and economic security.

We believe that the combination of a KPI system with an assessment of the competency of an individual employee and the marketing approach will ensure transparency in using labor resource stimulation mechanisms; form a new high-quality motivation system in which the end result expressed as the salary amount will depend on the quantity-quality indicators of labor force performance; and enable the differentiation of bonuses for each individual employee depending on the quality of performance of his or her job responsibilities and changes in his or her labor competencies.

References:

- Ball, B. (2012). A summary of motivation theories. Available at: <http://www.yourcoach.be/blog/wp-content/uploads/2012/03/A-summary-of-motivation-theories1.pdf> (accessed 28 January 2022).
- D'oloh, T. I. (2013). Upravlinnya motyvatsiyeyu u vitchyznyanykh pidpryyemstvakh: motyvatsiynny mekhanizm, motyvatsiynni faktory i kryteriyi efektyvnosti motyvatsiyi [Motivation management in domestic enterprises: motivation mechanism, motivational factors and criteria for motivation effectiveness]. *Ekonomika ta derzava*, vol. 10, pp. 16–18.
- Kalyuzhna, Ju., Pisarenko, D., & Nesterenko, S. (2018). Strategic maagement of labor resources of agricultural enterprises on the basis of marketing. *Agricultural and Resource Economics: International Scientific E-Journal*, vol. 4, no. 2, pp. 55–68. Available at: www.ire-journal.com (accessed 28 January 2022).
- Kolot, A. (2000). Teoretychni y prykladni aspekty vplyvu zarobitnoyi platy na motyvatsiyu trudovoyi diyal'nosti [Theoretical and applied aspects of the impact of wages on the motivation of labor]. *Ukrayina: aspekty pratsi*, no. 8, pp. 8–14.
- Kostynets, Yu. V. (2015). Suchasni kontseptsiyi motyvatsiyi yak instrumenty marketynhu personalu v systemi vnutrishn'oho marketynhu pidpryyemstva [Modern concepts of motivation as tools of personnel marketing in the system of internal marketing of the enterprise]. *Naukovyy visnyk Kherson's'koho derzhavnogo universytetu*, vol. 13, no. 3, pp. 38–40.
- Lizanets, A. G., & Rusin, V. M. (2010). Marketynhovyy pidkhid do upravlinnya personalom [Marketing approach to personnel management]. *Naukovy visnyk Mukachivs'koho derzhavnogo universytetu*, vol. 8(3), pp. 172–180.
- Maslow, A. A. (1943). Theory of Human Motivation. *Psychological Review*, vol. 50, no. 4, pp. 370–396. Available at: <http://psychclas.sics.yorku.ca/Maslow/motivation.htm> (accessed 10 January 2022).
- Motivation: Google Books Ngram Viewer. Available at: https://books.google.com/ngrams/graph?content=motivation&year_start=1800&year_end=2000&corpus=15&smoothing=3&share=&direct_url=t1%3B%2Cmotivation%3B%2C%0 (accessed 10 January 2022).
- Osovskaya, G. V., & Krushelnytska, O. V. (2003). Human Resources Management. Kyiv: Kondor, 224 p.
- Sardak, O. V. (2010). Marketynhovyy pidkhid do motyvatsiyi personalu pidpryyemstva [Marketing approach to enterprise staff motivation]. *Ekonomika, orhanizatsiya i upravlinnya pidpryyemstvom*, vol. 4(43), pp. 133–136.
- Shashina, M. V., Tulchinsky, R. V., & Fedotov, O. Yu. (2019). Formuvannya motyvatsiynoyi skladovoyi kadrovoyi polityky pidpryyemstva v umovakh vysokoho rivnya mobil'nosti robochoyi syly [Formation of motivational composition of personnel policy of the enterprise in the conditions of high level of labor mobility]. *Agrosvit*, vol. 3, pp. 48–52. Available at: http://www.agrosvit.info/pdf/3_2019/8.pdf (accessed 28 January 2022).
- Yadransky, D., Latypov, R., & Chumak, E. (2020). Personnel-marketing as a direction of development of personnel agricultural complex. Available at: https://www.researchgate.net/publication/347857469_Personnel-marketing_as_a_direction_of_development_of_personnel_agricultural_complex (accessed 28 January 2022).