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## The role of personnel management in increasing productivity at agricultural enterprises in Mongolia

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**Abstract.** The relevance of improving the efficiency of agriculture in Mongolia and, accordingly, the role of personnel management in the implementation of this task has grown especially in recent years when the number of pastures and arable land has substantially decreased due to an increase in the area of mineral extraction. The purpose of the study is to determine the most effective motivation and planning system for them, considering the national characteristics and mentality of agricultural workers, mainly nomadic shepherds, and to form recommendations on the most acceptable management style for this group. The Holfstede typology of cultural dimensions was used as a key method to identify the cultural and behavioural characteristics of the target audience. During the survey conducted among 1514 staff representatives and processing of its results, the average indicators for six cultural dimensions were calculated, and estimates of these indicators were given. According to the obtained data on the typology of cultural

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dimensions, it was determined that values in the examined social group are largely determined by traditions and customs, which means that a managerial model is in demand that will not impose existing Western management principles but uses its own tools based on relatively democratic principles. Based on the obtained characteristics, recommendations were formed on such key management tools as the principles of subordination, the system of setting tasks and monitoring their implementation, and on the effective motivation of personnel. The practical importance of the study lies in the development of recommendations for improving personnel management and, as a result, increasing efficiency at agricultural enterprises in Mongolia

**Keywords:** management; cattle breeding; agro-complex; agriculture; Hofstede method

## INTRODUCTION

Historically, the basis of the economy of Mongolia was agriculture – geographical features and a large area of pastures stimulated the development of cattle breeding. Shepherds roaming with herds of horses, flocks of sheep, herds of goats and cows have been forming their unique mentality for centuries and passing on knowledge and skills to their children from generation to generation. According to a study by the International Fund for Agricultural Development (Mongolia Country Strategy, 2021), agriculture accounts for about 11% of the gross domestic product (GDP) of Mongolia, 83% of which is the livestock sector, which directly or indirectly provides jobs for more than a third of the able-bodied population of the country.

Nevertheless, at the end of the 20th century, after the transition of the economy of the state to market relations and the intensive development of mining technologies, the vector of the main economic area changed from the agro-industrial complex (AIC) towards the mining of deposits of copper, gold, coal, uranium, etc. I. Batmunkh (2021), who examined environmental problems in the mining sector, calculated that more than 8 thousand hectares of land were damaged by gold mining alone throughout the country. In addition to mining, agricultural machinery also had a technogenic impact on pastures and arable land. Thus, in particular, the problem of land pollution with diesel fuel and engine oil was examined by U. Tserendorj (2022), who reflected on the main risks of such pollution and formed recommendations for optimal cleaning and operation of large agricultural machines.

Thus, the explosive growth of technologies has substantially affected the agriculture of the country – territories that were recently occupied by pastures and acreage are intensively turning into mines and storage sites for waste soils, and these changes are irreversible. Forced land cuts had a negative impact on the routes of nomadic shepherds, the volume of fodder, livestock, and crops. The solution for the current situation is to increase the efficiency of agriculture, minimising the consequences of technogenic processes. A number of studies have been conducted in the search for ways to increase the productivity of AIC of Mongolia.

For example, L. Bayasgalankhuu *et al.* (2022) conducted an energy analysis of wheat yield and concluded

the need to substantially limit the use of nitrogen fertilisers, since the energy costs of their use are unreasonably high. A. Batmunkh *et al.* (2022), in the process of investigating economic globalisation and environmental sustainability in Central Asia, confirm the hypothesis that the region is at the stage of an industrial economy and propose a roadmap for expanding interstate relations, including joint reclamation of the lands of Southern Mongolia, which will lead to an increase in the yield from steppe lands.

Regarding the efficiency of agriculture and productivity, such a negative natural phenomenon as drought should be considered. L. Nanzad *et al.* (2021) assessed the impact of droughts on the productivity of terrestrial ecosystems, identified signs of their approach at early stages and identified crops most susceptible to water scarcity. The results of their work are aimed to increase the readiness of staff and authorities for droughts, and, as a result, minimise negative consequences.

Therewith, one of the key factors in increasing the effectiveness of almost any process is the systematisation and improvement of its management. Regarding the situation under study, this refers to better management of personnel who are accustomed to existing in the traditional paradigm and avoid substantial changes – both in everyday life and in labour relations. The question of the behaviour of Mongolian farmers in the context of sustainable agricultural development has already been examined by B. Puntsagdorj *et al.* (2021). Having considered behavioural models through the prism of agricultural subsidies, they determined the readiness of farm employees to introduce new farming methods but ignored the management problem.

Filling the gap in the studies of new management solutions in agriculture in Mongolia, in this paper, the task was set to examine the specific features of the target audience and to identify the psychological and cultural characteristics of its representatives.

## LITERATURE REVIEW

The subject of agriculture in Mongolia, as a leading branch of the economy with a huge production potential, attracts the attention of many researchers, especially in the context of the global fight against hunger, which has been exacerbated in recent years.

Y. Takahashi *et al.* (2019) examined the possibilities of increasing agricultural productivity in Mongolia using information-communication technologies. As a result of the calculations he received, it was identified that investments in lightweight drones and automated crop control systems are economically justified even for small farms. Such innovations are impossible without the proper technical training of personnel, which means that the role of management in increasing productivity is especially high in that area.

J. Yuan *et al.* (2022), analysing the cyclical transformation of land cover between pastures and arable lands on the example of the aimags of Archangel, Tuve, and Dornod, noted that the spatial distribution of the intensity of land use indicates that its principles are largely influenced by short-sighted management decisions. Moreover, improper management and lack of high-quality information work with personnel lead to uncontrolled migration in rural areas of Mongolia (Amartuvshin *et al.*, 2021).

M.L. Markowitz (2013) warned about the risks of the raw material model of the Mongolian economy in her work. According to the author, long-term mining hinders the sustainable development of the economy, because the funds received “at the moment” from coal or gold mining are spent over time, while crop and cattle breeding without proper support is declining. Consequently, according to the conclusions obtained in her study, a qualitatively different approach in the management of agro-industrial complex personnel is necessary for the formation of the food security potential of the country. B. Zandaria (2022), based on his own calculations, concluded that the total funds needed for the rehabilitation of the existing territories of Mongolia affected by mining are up to 51.1% of the budgets of local authorities. Therewith, without fundamentally novel approaches in the management and implementation of planned measures for the reclamation of territories and the achievement of sustainable development goals, there is a risk of repeating the same mistakes that led to the current situation.

An important contribution to the examination of the psychology of farmers and their management approach was made by Y. Shang and T. Xiong (2021), who surveyed representatives of 469 farms to determine their readiness to ensure future crops and crop prices. As a result of that, it was identified that farmers have a low estimate of their own ability to predict crop prices, but, nevertheless, they do not trust such an assessment from specialists and, in most cases, refuse to issue insurance. This contradiction leads to the conclusion that to get the trust of the farmers, it is necessary to convey to them the essence of innovations (in this case, insurance products) in an accessible form.

L. Janz (2007) noted a major difference in the mentality of nomadic pastoralists and sedentary shrews. Moreover, this contradiction was considered by her in

the context of the psychological confrontation between representatives of two Asian subcultures – nomadic and sedentary. Taking this hypothesis as a basis, considering national, cultural, and behavioural traditions when evaluating the methods of personnel management becomes even more important in the agro-industrial complex of Mongolia.

Notably, almost all authors, researching ways of introducing innovations in the agro-industrial complex of Mongolia did so in the context of the existing Western management paradigm. Therewith, as can be seen from a number of studies mentioned above, the specific features of the personnel of Mongolian farms are such that any management system should be adapted to the existing mentality and traditions of generations of nomads and pastoralists. Considering the above, the purpose of this study is to identify key cultural codes and social characteristics of personnel and form a specialised set of recommendations for their management.

## MATERIALS AND METHODS

First, it was necessary to identify the psychological characteristics of such a unique target audience as Mongolian nomads-shepherds and farmers to fully assess the management role of farms and enterprises of the agro-industrial complex. Due to the evident specific features – geographical remoteness from settlements, closed communities, constant challenges of wildlife, regular movements, and the absence of a stationary home in its conventional sense – this social group has been formed for many generations in a relative cultural and social vacuum.

Therefore, when it comes to managing such personnel, the existing experience of Western management is not applicable. It was decided to conduct a study according to the typology of cultural dimensions developed by Geert Hofstede to form an original approach and understand the logic, motivation, and values of Mongolian agricultural workers. Within the framework of these measurements, the attitude of a person to work, the service hierarchy, life orientation, and ethnic and cultural characteristics are determined.

The survey was conducted in six key categories listed below. The Power Distance Index (PDI) is the degree to which people who do not have power or have little power agree that power is distributed unevenly in society, i.e., the higher this indicator, the more society agrees that the leader has indisputable authority.

Individualism (IDV) – assessment of the dominance of individual interests. The higher this indicator, the less collective goals and collective responsibility are inherent in such a society. Masculinity (MAS) is a focus on achieving results at any cost. The lower this indicator, the higher the value of intangible benefits, relationships in the team, and quality of life. Avoiding uncertainty (UAI) index is the need to have specific plans and understand how to achieve them. Consequently, the

lower this indicator, the higher the willingness of this society to take risks (Zandariya, 2022).

The long-term orientation (LTO) is a kind of persistence coefficient, a willingness to endure hardships and failures here and now in the expectation of future well-being. The IVR assumption is the degree of satisfaction with life, and readiness to fulfil one's own desires independently. During the study, 1514 employees of agricultural facilities in Mongolia were interviewed, representing different groups – by age, gender, and labour specialisation. The studies were conducted in the field on the territory of Eastern Mongolia in the provinces of Dornod and Sukhbaatar, and in Central Mongolia in the aimag of Tuva. Respondents were asked to assess the degree of their agreement with the statements in six categories on a scale from “completely disagree” to “completely agree”. The survey was conducted under the legend of a general sociological study to avoid distrust of the interviewer group.

For the convenience of respondents, the response scale assumed a five-point system, which was already

translated into an accepted one-hundred-point system by the formula (1) at the analysis stage:

$$X_{100} = (X_5 - 3) \times 25 + 50, \quad (1)$$

where,  $X_{100}$  – evaluation of the indicator according to the hundred-point system, and  $X_5$  is an assessment of the indicator on a five-point system.

The assessments of each respondent were recorded, after which average indicators were formed for each of the six categories of culture measurement, which, in turn, formed the basis of recommendations on personnel management.

## RESULTS

A survey of 1514 representatives of this social group was conducted to identify the cultural characteristics of employees of the agro-industrial complex of Mongolia. The respondents were randomly selected from three aimags in the centre and east of the country. Their structure in the context of the main social characteristics is presented in Table 1.

**Table 1.** Structure of the respondent group

Groups	Indicator	Number, persons	Specific weight in the group, %
Gender	Male	1105	73
	Female	409	27
Age	Under 20	91	6
	20-40	954	63
	40-60	424	28
	Over 60	45	3
Specialisation	Cattle breeding	1019	67
	Agriculture	495	33

**Source:** compiled by the authors based on the survey data

Since the sample was random, these proportions of indicators in social groups can be considered representative. All cultural features measured using the Hofstede methodology were formed under the influence of society throughout the respondents' lives – “cultural programming” was created by people around them, first by family, and then by work colleagues. The uniqueness of the target audience of this study, that is, employees of small family farms, lies in the fact that often in relatively isolated sums, family members, neighbours, and colleagues are practically the same team, which means that in the absence of outside opinions, the “cultural programming” of the environment produces the maximum effect.

For better contact with the respondents and the formation of confidence in the questionnaire, the interviewers voiced the legend of the global social survey, because in this case, those taking part in the survey became the “majority” in their own eyes and reduced

the number of psychological barriers. First of all, it was necessary to identify the power distance index. The answers of all respondents were collected, the average score of the indicator was calculated and the index was determined according to the one-hundred-point system according to the formula (1). As a result, the PDI was 15 points out of a hundred. This means a low degree of power distance, characteristic of countries and communities where equality is valued, and the leader is perceived as a colleague and a reliable friend. This indicator also indicates the cultural traditions of decentralised management, which is evidently characteristic of nomadic life and scattered isolated farms.

The next indicator to be calculated is the individualism index. According to the results of the survey of the target audience, the average IDV was calculated – at 18 points. A low indicator of this index indicates the presence of collective goals in society. Unlike individualistic cultures and companies, where employees

overprotect their own personal space and rely only on themselves, the staff of Mongolian agro-industrial enterprises embraces working in groups and the absence of pronounced internal competition. Historically, this is explained by the tradition of group nomadism and clan gatherings for making important decisions. Therefore, the leader should avoid accepting authoritarian expressions of will without consulting the team.

The so-called MAS masculinity index demonstrates which of the two value models the collective tends to – work (conditionally male role) or take care (conditionally female). Named according to conventional family stereotypes, the roles identify the true need of team members – to receive maximum income no matter what, or to maintain human and trusting relationships among employees. This index, according to surveys conducted in selected collectives, amounted to 42 points. This means that, despite a certain balance of interests, there is a certain bias towards the “female” team, when it is necessary to concentrate efforts on taking care of the staff. It is characteristic that this index in other Asian cultures is much higher and definitely dominates the “male” indicator. The peculiarity of the Mongolian nomadic culture in the value of the MAS index can easily be explained by the substantial isolation of nomads – in the wild and depending on natural disasters, good relations within the collective can be lifesaving.

An important cultural feature is also the readiness for uncertainty. Harsh natural conditions and difficult life are already quite unpredictable factors, which means that the target audience of the study is trying to minimise at least those risks that they can affect. Thus, the UAI score was a substantial 83 points out of 100. From the standpoint of management and personnel

management, this refers to people’s need for clear algorithms, formalised rules, conditions, and instructions. In addition, such a pattern of behaviour presupposes the willingness of employees to regularly interfere with management in the process as a momentary “pointing finger”.

The next indicator of cultural dimensions – long-term orientation – was also examined using surveys. The resulting LTO index of 50 points indicates a predominantly neutral attitude to the idea of high goals pushed back in time. On the one hand, farmers are used to the fact that the result of their work is not immediately evident, and it takes months and, sometimes, years to make sure of the successful implementation of the project. On the other hand, long demanding work without visible confirmation of the correctness of the chosen path is also not for them. Evidently, in matters of long-term planning, a similar balance should be observed, and when forming global plans, intermediate control points and rewards should not be disregarded.

The final parameter is the assumption. The summed and analysed responses of the respondents eventually gave an indicator of this index of 35 points. Since communities with high IVR assumption rates are characterised as declaring relatively free satisfaction of desires, it should be stated that the target audience of this study does not perceive personal happiness as an unambiguous value. Difficult working conditions and limited resources have formed in generations of Mongolian farmers the need to control the satisfaction of momentary desires and needs and introduced regulation of these impulses through a system of social prohibitions and norms.

In general, the indicators of cultural dimensions of the examined community are as follows in Table 2.

**Table 2.** Average indicators of respondents’ cultural measurements

PDI	IDV	MAS	UAI	LTO	IVR
15	18	42	83	50	35

**Source:** compiled by the authors based on the survey data

Summarising the results of surveys on all indicators, it can be stated that from the standpoint of management, the audience does not tolerate an authoritarian style and is used to taking part in decision-making. Such decisions should be made together, while the absence of conflicts and mutual trust is important in the team. The staff should understand the purpose of management changes and have the tools for intermediate control of achieving this goal. In the process of management, it is necessary to remember the presence of certain self-restrictions and taboos among employees, which should not conflict with management decisions.

Based on the generalised portrait of the employee obtained, democratic principles of leadership should be adopted to improve the efficiency and productivity of labour in agricultural enterprises in Mongolia. With

a democratic approach to management, the manager makes all decisions together with the team that is involved in the planning process. Therewith, it is important to keep a balance and avoid unnecessary initiatives of the staff, since their lack of the necessary managerial qualifications can neutralise the whole essence of managerial reforms.

Among the positive aspects of the democratic style is the prevalence of a high degree of satisfaction with their work among team members and, consequently, increased productivity. Therewith, such an approach may be ineffective in case of critical and time-pressure situations when a decision is needed immediately. Considering such specific features of AIC personnel as remoteness, isolation, lack of constant monitoring, and operational feedback, some aspects of socially oriented

management should also be adopted. Despite the inevitable loss of efficiency, in some cases it is the approach in which human relations in the team and a friendly environment come first, that can provide results in the long term.

Setting tasks to staff in the context of the results of cultural measurements can be initially visionary – i.e., it is quite possible that employees can clearly and in detail describe the goal set, provide tools, and they will be able to choose the methods of achieving the result themselves based on their own experience. It is proposed to conduct such an experiment on a separate focus group under conditions of increased control, and if it is successful, introduce such an innovation in other areas.

In any case, the recommended democratic leadership style is also good because it allows using the knowledge and skills of individual team members in the common interests. The life experience, practical skills, and actual qualifications of experienced shepherds and farmers are valuable resources, and the task of the manager is to direct these qualities in the right area, eliminate unnecessary prejudices and thereby increase the overall efficiency of the project.

The issue of productivity growth is key in this context. The economy of Mongolia, which has experienced explosive growth in mining, is still in a vulnerable state, and the level of poverty of citizens is one of the highest in the region. Consequently, the growth of labour productivity in the agro-industrial complex can be an impetus to the withdrawal from the economic crisis. Conversely, low labour productivity is a key element of a self-sustaining negative feedback system known as the poverty trap or development trap. Under this system, low productivity leads to a decrease in economic indicators; a budget suffering from a deficit is forced to limit investments in education; as a consequence, the decline of the vocational training system leads to a decrease in the number of qualified personnel, which ultimately leads to an even more critical decrease in labour productivity. Therewith, it is important to understand that this refers not to the abstract productivity of some administrative or economic enterprise, but to specific people, individual labour indicators, whose effective work should form the basis of the economic revival of the country.

A qualitative growth of management in the agricultural sector is necessary to break this vicious circle. The management principles proposed above, formed considering the special mentality of Mongolian farmers, are designed to normalise productivity indicators in the medium term. In addition, it is necessary to move away from the legacy of the period of a rigidly planned economy in Mongolia and introduce into the study such value concepts demanded by respondents as friendly patronage from the head, decentralisation of management sources, regular industry khurals for consultations and exchange of experience, and an effective motivation system.

The motivation here can be values that are also unique and unusual for other economies and societies.

In particular, most respondents noted that the best reward for effective work for them would not be money or premium household items, but young cattle, the value of which grows as they grow older. In addition, such “alive bonuses” do not require a separate transport resource, especially valuable for a nomadic lifestyle. Within the framework of increasing overall efficiency, the recommendation of mutual rotation of employees of the agricultural sector deserves special attention – mentally being part of the nomadic culture, employees of settled agricultural farms demonstrate greater efficiency after a temporary change of situation and work in other fields. In addition, such rotations also contribute to the exchange of experience between farms.

It is important to emphasise that the growth of labour productivity as such is not an end goal in itself – even with a certain increase in indicators, the focus on primary production with a low added value substantially limits the development of farms, making them dependent on circumstances. Consequently, the increased resources obtained as a result of increasing the productivity of enterprises, yields, and livestock, it is necessary to invest in agro-processing – even the simplest points of processing of raw materials substantially increase the income of both pastoralists and farmers.

It is the adapted control system that will help to make this qualitative leap in the near future. Farmers who have established primary processing points on the territory of their farms will be able to increase income by supplying higher-grade products to the market.

## DISCUSSION

The problems of personnel management have been examined quite extensively before, but there has not been a narrow focus on the Mongolian-specific features. Nevertheless, a number of issues and solutions examined in this study resonate with the conclusions of other authors.

N. Berber and A. Slavić (2022) investigated the nature and specific features of human resource management in the agro-industrial field and described the practice of the main and most important personnel management measures in the example of 12 operating enterprises in the agricultural sector. In investigating motivational mechanisms in the personnel management structure of specific enterprises, the authors analysed the main management models that showed practical positive experience and proposed the most effective scheme. Such a motivational model includes in its structure a number of constituent elements – goals, objectives, principles, methods, and tools – and priority areas that allow the management of the company to increase the effectiveness of employees' work.

A. Adeel (2017) also examined the problem of systematisation of human resource management in agriculture. The author calculated that human capital is a more important and valuable resource than technological

developments and financial sources since the time to train a qualified specialist is measured in years. In addition, he suggested that finding a person in the hierarchical structure of the company is in itself a satisfaction of internal ambitions and needs for socialisation, which serves as a certain motivation for productive work.

Z. Zhai *et al.* (2020) examined the agricultural sector of the economy in the context of the global challenges of the growing world population and the fourth evolution of technology, reviewed thirteen different representative decision support systems and concluded that the importance of systematic development of skills and technological savvy of agro-enterprise personnel is critically high.

Since the northern regions of China have similar geographical problems to the Mongolian ones, the experience of researchers of this country in the integration of agriculture and tourism is interesting. Y. Liu *et al.* (2023) examined the development of remote territories in the context of green tourism gaining popularity around the world. The results of their study show that attracting tourists who want to personally experience the exoticism of remote pastures and nomadic life has a substantial positive impact on the development of rural areas. In the context of the national and cultural characteristics of the Mongolian peasants identified in the course of the study, it can be concluded that this innovation will take root in their environment, which means that it is necessary to promptly develop appropriate personnel management systems and logistics processes.

Regarding the uneven development of regions within one country, the experience of the Kyrgyz Republic should also be mentioned. Its mountainous regions, due to objective geographical reasons, have a relatively low economic potential, which leads their inhabitants to lag behind in the social field. Despite the general increase in prosperity, which began with the independence of Kyrgyzstan in 1991, the transition to a market economy has increased the property stratification of residents of different regions of the country. Insufficiently developed regional policy has led to such negative consequences as unemployment, increased social tension, an increase in the volume of the shadow economy, and, as a result, the state budget deficit. The heterogeneity of indicators for the economic and social development of the population requires intervention. Consequently, a precise regional policy with clear algorithms for the individual development of separate districts should be the basis for the updated management concept at all levels.

S. Guliyeva *et al.* (2021), investigating a similar subject of the effectiveness of a personality-oriented approach in working with agricultural workers, identified that the development of employee value is directly proportional to labour productivity in the agro-industrial sector. According to the results of the analysis of the econometric model, the most stimulating factors

influencing labour productivity in the agro-industrial complex were such values as the moral qualities of employees, a democratic approach in relations with subordinates, self-development, aid in self-fulfilment, tolerance, and dedication to the common cause. In other words, the desire for improvement and development, the achievement of goals (both personal and corporate), freedom of expression, and the absence of total control by management with a prominent level of development of moral values, and tolerance in the team, leads to a substantial increase in labour productivity. All this, in a certain sense, echoes the above-mentioned results of the study and the recommendations for a democratic style in management.

Evidently, a long-term increase in labour productivity is impossible without the personal positivity experienced by employees from the work done. D. Bodescu *et al.* (2022) examined the relationship between productivity and satisfaction of food industry workers by conducting surveys of 254 employees and 17 managers from 60 companies. As a result, it was determined that a low level of staff satisfaction requires higher remuneration for their work. All other things being equal, it is more financially costly for employers than the services of employees with a prominent level of satisfaction.

J. Cock *et al.* (2022) analysed labour productivity in global agriculture through the prism of a choice between two concepts – nominal quantitative yield growth and efficiency of return from a conditional unit of labour expended. The authors of the study recommend further development of labour productivity according to the second concept, which assumes an increase in farm income from the transition to higher-value agricultural crops to avoid impoverishment of small farms and relocation of their employees to cities in search of more profitable work.

P. Colnago and S. Dogliotti (2020) also conducted their study on labour productivity in agriculture. As a result of their work, it was confirmed that labour productivity is a key factor in increasing the sustainability of family farm systems, income, and quality of life. The main factors shaping labour productivity were the difference in crop yields, the distribution of the labour force across diverse types of production activities, and their efficiency and profitability.

The essence of the study by C. Hogan *et al.* (2022) on the subject of efficiency growth in the field of agriculture was to identify productive techniques and technologies of work when performing specific tasks, and an assessment of the time savings that could be obtained by performing them during the peak labour intensity on dairy farms of spring calving. Labour savings were assessed for 12 substantial individual work methods and technologies, of which 5 were related to milking, 4 to calf care, 2 to cow care, and one to pasture management.

Another aspect of the problem of personnel management in agriculture is the age of employees.

H. Urbancová and P. Vrabcová (2020), using the example of agricultural enterprises in the Czech Republic, examined demographic trends and the resulting problems of workforce shortage. Based on a quantitative study of 136 companies operating in the raw materials sector, the authors identified organisational advantages and effective human resource management strategies designed to ensure a generational change in farms. The surveyed respondents see the main advantages in keeping key employees, increasing motivation and productivity, and improving the organisational climate. Drawing parallels with the survey data obtained as a result of the current study, the absence of an age problem and, accordingly, the need to manage demographics can be stated.

In investigating the role of personnel management, it is important to consider the information received in the context of sustainable human resource management (HRM), a trend that has been dynamically developing over the past 15 years. R. Kramar (2022) notes that HRM strategies are designed to define goals, methods, and types of management that personnel management specialists will be able to apply in the medium term in the context of the global sustainable development movement, involving concern for the environment and the well-being of present and future generations. The author formulates the six defining characteristics of HRM as readiness for contradictions, concern for the development of abilities, the need to recognise negative results, attention to the practical implementation of knowledge, a clear statement of values, and the development of a system of unified measurable indicators.

Thus, the results of the work done and its comparison with the experience of other studies indicate that the approach to assessing labour productivity indicators was correct. The role of management in increasing these indicators is also confirmed by the experience of a number of authors. Therewith, the unique situation that has developed in remote pastures and isolated agricultural enterprises in Mongolia requires substantial amendments when trying to transfer this experience to local realities.

## CONCLUSIONS

The data obtained as a result of the study confirm the initial hypothesis that quality management has a positive effect on labour productivity growth in agricultural

enterprises in Mongolia. Therewith, any innovations in management should be evaluated in advance from the standpoint of cultural characteristics and national traditions of the farm and of remote pastures staff.

The results of a survey conducted in the field among the target audience of interest showed that according to Hofstede's typology of cultural change, the most effective management style is democratic when leadership takes place in a relatively mild manner and the boss is an understanding friend and attentive supervisor, not a soulless commander. Therewith, it is important to maintain good relations within the team and to involve the collective council in making key decisions.

Thus, the goal of forming recommendations for effective management, which was originally set, was successfully completed. In subsequent studies, it will be necessary to analyse the results of the factual implementation of the proposed management style.

In addition, among the innovations recommended by the results of the study are: state control over the exploitation of mining areas, and the reclamation of those arable lands that were polluted by mining operations; introduction of the simplest relatively inexpensive technical means in farms on the level of a reconnaissance drone, sensors of humidity, acidity, temperature, lighting, etc.; the unification of the remote control system by technical means by developing an Android programme for remote monitoring of sensors in the national language; the creation of local places for the primary processing of raw materials; development of conditions for the launch of the so-called green tourism programme, which should include the development of routes, the preparation of a cultural programme, the regulation of medical insurance, and the development of logistics infrastructure.

From a practical standpoint, following these recommendations will improve the quality of management and labour productivity in the agro-industrial complex of Mongolia, which will provide an important impetus for the development of the economy.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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## Роль управління персоналом у процесі підвищення продуктивності праці на сільськогосподарських підприємствах Монголії

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**Анотація.** Актуальність підвищення ефективності сільського господарства Монголії і, відповідно, роль управління персоналом у реалізації цього завдання особливо зросла в останні роки, коли кількість пасовищ і ріллі істотно скоротилася за рахунок збільшення площі видобуток корисних копалин. Мета дослідження – визначити для них найбільш ефективну систему мотивації та планування з урахуванням національних особливостей і менталітету працівників сільського господарства, переважно кочових пастухів, і сформулювати рекомендації щодо найбільш прийнятної моделі управління для цієї групи. Типологія культурних вимірів Холфстеда була використана як ключовий метод для визначення культурних і поведінкових характеристик цільової аудиторії. У ході опитування 1514 представників персоналу та обробки його результатів розраховано середні показники за шістьма культурними вимірами та надано оцінки цих показників. Згідно з отриманими даними щодо типології культурних вимірів було визначено, що цінності в досліджуваній соціальній групі значною мірою визначаються традиціями та звичаями, а це означає, що затребувана управлінська модель, яка не нав'язуватиме існуючі західні принципи управління, а використовує його власні інструменти, засновані на відносно демократичних засадах. На основі отриманих характеристик сформовано рекомендації щодо таких ключових інструментів управління, як принципи субординації, системи постановки завдань і контролю за їх виконанням, ефективної мотивації персоналу. Практичне значення дослідження полягає в розробці рекомендацій щодо вдосконалення управління персоналом і, як наслідок, підвищення ефективності роботи сільськогосподарських підприємств Монголії

**Ключові слова:** господарювання; скотарство; агрокомплекс; землеробство; метод Гофстеде

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