

DOI: <https://doi.org/10.34069/AI/2022.50.02.14>

How to Cite:

Litvin, I., Bezchasnyi, O., Kolosok, V., Khodova, Y., & Bezkorovainiy, Z. (2022). Multi-indicator system for evaluating the effectiveness of management of enterprise development financing. *Amazonia Investiga*, 11(50), 140-151. <https://doi.org/10.34069/AI/2022.50.02.14>

Multi-indicator system for evaluating the effectiveness of management of enterprise development financing

Полііндикаторна система оцінки ефективності управління фінансуванням розвитку підприємств

Received: December 4, 2021

Accepted: January 18, 2022

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Abstract

The article establishes to assess the effectiveness of financial security management is necessary to take into account the relationship between indicators of enterprise development and indicators of efficiency of financial security management in dynamics and adjust the assessment for positive or negative external influences. Insufficient research has focused on assessing the effectiveness of financial management of development, especially on the formation of an appropriate system that can guide practitioners. Therefore, the purpose of the article is to develop a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises. To solve this problem, the study was aimed at forming comprehensive recommendations that provide appropriate steps and actions. The manual is developed using the conceptual research method, the method covers three phases: collection of steps and measures from existing recommendations on the evaluation system (1), classification of indicators and

Анотація

У статті встановлено, що для оцінювання ефективності управління фінансовим забезпеченням необхідно враховувати зв'язок між індикаторами розвитку підприємства та індикаторами ефективності управління його фінансовим забезпеченням у динаміці та здійснювати корегування оцінки на позитивні або негативні зовнішні впливи. Недостатньо досліджень зосереджено на аспекті оцінювання ефективності управління фінансовим забезпеченням розвитку, особливо на формуванні відповідної системи, яка може направляти практиків. Тому мета статті розробка полііндикаторної системи оцінки ефективності управління фінансуванням розвитку підприємств. Для вирішення цього завдання, дослідження було спрямоване на формування вичерпних рекомендацій, які передбачають відповідні кроки та дії. Керівництво розроблено з використанням методу концептуального дослідження, метод охоплює три фази: збір кроків і заходів з існуючих рекомендацій

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definition of system structure (2), definition of criteria for assessing financial compliance systems for evaluating the effectiveness of financial security management (3). The proposed recommendations allow to analyze the dynamics of both the global development of the enterprise and the management of financial security necessary for development, which allows to develop measures to improve the management of financial security of the enterprise. According to the results of the research, the developed multi-indicator system for assessing the effectiveness of management of financing the development of agricultural machinery of PJSC "Harvesters" was tested.

Keywords: financing, development, enterprise, management, system, estimation, indicators.

щодо системи оцінки (1), класифікація групи індикаторів та визначення структури системи (2), визначення критеріїв оцінки відповідності фінансового забезпечення завданням розвитку підприємства та критеріїв полііндикаторної системи оцінювання ефективності управління фінансовим забезпеченням (3). Запропоновані рекомендації дозволяють аналізувати в динаміці як глобальний розвиток підприємства, так і управління необхідним для розвитку фінансовим забезпеченням, що дає змогу розробити заходи щодо покращення системи управління фінансовим забезпеченням підприємства. За результатами дослідження проведено апробацію розробленої полііндикаторної системи оцінки ефективності управління фінансуванням розвитку сільськогосподарської техніки ПрАТ «Харвестери».

Ключові слова: фінансування, розвиток, підприємство, управління, система, оцінка, індикатори.

Introduction

The most important step in managing the financial support of enterprise development is to assess its effectiveness, which provides a basis for determining whether the management was effective enough to achieve the goals or whether the management system needs improvement. A feature of assessing the effectiveness of management of financing the development of enterprises is the dependence of the evaluation process and criteria on the dynamics of the external environment. The process of enterprise development itself is carried out under the influence of the external environment, which can be favorable and unfavorable. Therefore, the effectiveness of enterprise development in general and its financial support in particular depends on how effectively the opportunities were used and the negative effects were overcome, and not just as an absolute or relative increase in any one indicator. Therefore, a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises is needed. To solve this problem, sets of key indicators of enterprise development and financial support necessary for this development have been identified, thanks to which an analysis has been made in the dynamics of both global enterprise development and management of financial support necessary for development.

In the study of the dynamics of the external environment that has an impact on the development of the enterprise, the influential factors are characterized, which are characterized by changes in time and weight characteristics of the impact on each direction of enterprise development.

In this paper it is proposed to evaluate the dynamics of business development through appropriate development indicators.

The study aims to develop comprehensive recommendations for steps and actions to develop a multi-indicator system based on literature to find and integrate different concepts, including performance aspects, financial evaluation, organizational decision levels and strategic development management (Theoretical Framework or Literature Review). The section "Methodology" offers phases of development of a multi-indicator system for assessing the effectiveness of development finance management: classification of indicators and determining the structure of the system, determining criteria for assessing the compliance of financial security with enterprise development and criteria for multi-indicator system for assessing the effectiveness of financial management. The section "Results and Discussion" presents the results of testing

the developed multi-indicator system for evaluating the effectiveness of development finance management at PJSC "Harvesters".

Theoretical Framework or Literature Review

Difficulty in accessing finance is one of the critical factors constraining the development of enterprises. With the development of financialization, manufacturing enterprises allocate greater funds to the financial field, which may significantly affect their level of R & D investment (Hou et al, 2021).

The study Amare Abawa Esubalew and A. Raghurama (2020) revealed the significant mediating effect of behavioral finance on the relationship between bank finance and performance of enterprise.

Naoyuki Yoshino and Farhad Taghizadeh-Hesary (2019) believe that one efficient way to promote SME financing is through credit guarantee schemes, by which the government guarantees a portion (ratio) of a loan provided by a bank to a SME. Due to asymmetry of information between banks and SMEs, total loans to SMEs are smaller than the desired level of SME loan demand. Therefore, providing credit guarantees reduces information asymmetry between SME and banks, which increases the amount of loans to SMEs.

Paper Jinet et al., (2022) found that the leverage effect occurs in the loans of non-high-tech and nonentrepreneurial enterprises, and the credit constraint effect is dominant in the loans of high-tech enterprises and entrepreneurial enterprises.

Study Teng-Shihet al, (2018) examines the impact of external financing activities on earnings management decisions and further explores the role of enterprise risk management (ERM) as a potential moderating factor in this association.

Modern realities of risk management in bank finance are considered in the paper Tarasova H., et al, (2018).

In Limei Wang and Yun Wang (2022), all sides of supply chain financing optimize the supply chain risk management system, while reducing business costs and improving corporate efficiency, which significantly reduces the risks of all parties in supply chain financing.

A separate area of assessing the effectiveness of enterprise development is to assess the effectiveness of all areas using a balanced scorecard.

Dokienko L. (2015) proposes to evaluate the effectiveness of financial management of the financial service of the enterprise using a balanced scorecard, but simultaneously with the evaluation of cost-oriented management from the standpoint of the owner. It is proposed to use the profitability of innovations, assets and equity, profit before mandatory payments, net cash flow and cash flow return on invested capital as the main indicators. In general, the approach proposed by (Dokienko, 2015) based on finding a compromise between assessing the efficiency of the enterprise through market value added and economic value added, as well as taking into account cash flows. Among the shortcomings should be noted the lack of attention paid to assessing the effectiveness of financial management in the context of enterprise development.

Boichenko K. and etc. (2021), established that the development of enterprises depends to a large extent on their financial support as a whole. The change in the development level of companies depends substantially on the change in the integrated indicator of their financial provision. In particular, enterprises' development is significantly affected by the capital structure and the predominance of equity in it, as well as current financing.

Thus, Demidova I. (2011) proposes to calculate the integrated indicator which, in addition to innovation, marketing, technology and personnel also takes into account the impact on the efficiency of financial and resource factors. Moreover, there are factors of the internal and external environment of the enterprise and the place of formation of information on these factors that affect the development of the machine-building enterprise. At the same time, the universality of this approach causes its shortcomings, because most aspects of financial security management are not taken into account.

In the work of Popkova, Elena G. and Bruno S. Sergi (2021), specific factors of financing sustainable development in developing economies are identified, and based on this, financial risks are identified.

Izabela Jonek-Kowalska (2019) proposes to use a four-stage system of performance measurement, which includes: accounting for financial results in the form of profit or loss, percentage changes in net financial result for the year, return on total assets. and return on equity.

Barantseva S. and Bazyuk V. (2014) considered the assessment of the effectiveness of financial resources management as part of the overall assessment of the effectiveness of enterprise development, which includes in addition to financial, also commercial, information and personnel processes. To assess the effectiveness of financial processes, it was proposed to use such indicators as return on equity, revenue growth rate, liquidity ratio, return on investment capital. Positive changes in these indicators are considered development achievements, and negative changes indicate a dangerous situation. This approach ignores the peculiarities of the external environment and the need to assess the effectiveness of development in the context of changes that create positive opportunities for development or, conversely, overcoming which requires additional efforts.

The research of Tkachenko, VA and Pestovska, ZS (2014) deserves attention, who proposed to consider the financial needs of the machine-building enterprise with their division into three subsystems: the subsystem of receivables management, the subsystem of accounts payable management and the subsystem of inventory management. For each of these subsystems, Tkachenko, VA and Pestovska, ZS (2014) proposed efficiency indicators based on generalized indicator of the efficiency of managing the financial needs of the enterprise can be obtained. This approach is quite promising, but it should be noted that the assessment of the effectiveness of financial needs management in it is weakly related to the development of the enterprise.

Thus, in general, it can be concluded that studies on the evaluation of the effectiveness of corporate finance management considered only some components of this problem, mainly without establishing links between the assessment of overall development and the effectiveness of financial management, and without taking into account the specifics of individual industries. Also, the assessment of the financial system of the enterprise was mainly carried out either by calculating a set of financial indicators, or combining them into one integrated indicator, without creating a system that would take into account their relative importance and connection with enterprise development in the information economy.

Therefore, there is a need to develop a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises that must meet the following requirements:

based on key indicators of development of the enterprise of agricultural mechanical engineering which are important both for characterization of global development of the enterprise, and for an estimation of efficiency of management of financial maintenance;

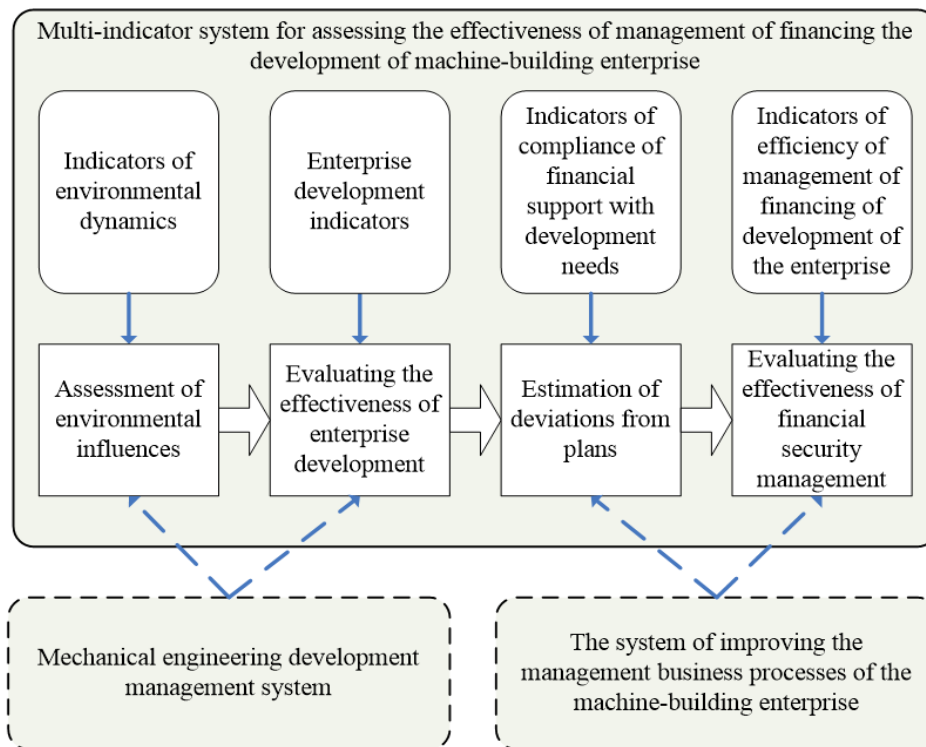
reflect the relationship between indicators of enterprise development and indicators of the effectiveness of its financial management in the dynamics;

take into account the peculiarities of the external environment in which the development of agricultural machinery and evaluate the effectiveness of enterprise development and management of its financial support with adjustment for positive or negative external influences.

Methodology

To solve the problems it is proposed to use the elements of mathematical modeling, the method of integrated evaluation with subsequent ranking and the method of analysis in dynamics.

The peculiarity of building a multi-indicator system for assessing the effectiveness of enterprise development finance management is its close connection with the enterprise development management system and the system of improving the management business processes of the enterprise are shown in Figure 1.



Source: own research

These systems are necessary to coordinate the management of financial support for development with the development of the enterprise and to improve the management system of the enterprise in general and financial security in particular based on the results of evaluating the effectiveness of financial management of enterprise development.

The multi-indicator system for assessing the effectiveness of enterprise development finance management includes the following groups of indicators:

indicators of environmental dynamics;
 enterprise development indicators;
 indicators of compliance of financial support with development needs;
 indicators of efficiency of management of financing of development of the enterprise.

First of all, when assessing the effectiveness of financial management is a study of the effects on the development of the external environment. This function is subordinated to the enterprise development management system and is based on indicators of the dynamics of the external environment of the enterprise.

When studying the dynamics of the external environment that has an impact on the development of the enterprise, it is proposed to consider the following influential factors:

change in sales volumes on the world market;
 changing the profitability of producers;
 changing the availability of lending to producers to upgrade fixed assets;
 change in prices for raw materials, primarily for metallurgical products;
 change in the cost of attracting financial resources;
 change in indices of availability of foreign markets;
 change in the competitive position of the enterprise in terms of price characteristics due to fluctuations in exchange rates;
 change in the competitive position of the enterprise in terms of product quality and its consumer properties.

Each of these factors has an impact on certain areas of enterprise development. Thus, each factor of the dynamics of the external environment is characterized by changes in time and weight characteristics of the impact on each direction of enterprise development.

In turn, the dynamics of enterprise development is assessed through the relevant development indicators, which are proposed to be grouped by areas:

- improvement of products produced by the enterprise;
- expansion of sales volumes and markets for products manufactured by the enterprise;
- improving the quality of enterprise management;
- improving the financial results of the enterprise.

That is, the development that requires appropriate financial support is proposed to be divided into management development, product quality development, sales development and development of financial results. The ultimate goal of any business development is the development of financial results, ie maximizing the profit or market value of the enterprise. But in strategic management is also important management development, product development and sales development, which may not have a direct and rapid return, but in the long run lead to improved financial results.

The direction of development of product quality includes improvement of consumer characteristics of products, its quality, cost reduction due to improved technology and use of more modern equipment, training of production staff and more.

The direction of management development means accelerating management decisions, increasing their validity, increasing the skills of management staff, improving the organizational structure, simplifying business processes and more.

The direction of sales development is both a simple increase in sales and expansion of the range, the creation of new offices, entering the markets of other countries, the formation of stable relationships with large regular consumers.

Finally, the development of financial results is an increase in profit before mandatory payments, net profit, growth in market value of the enterprise, profitability.

Each of the areas of development is influenced by environmental factors. Impacts can be both negative, which hinder the achievement of planned development indicators, and positive, which provide improvement of indicators even without the necessary measures. Taking into account these external influences makes it possible to more adequately assess the development of the enterprise and take into account what part of this successful development or, conversely, failures in development activities, is provided by effective management, and what favorable or unfavorable situation. Estimates of the strength of each impact of the external environment on the development of the enterprise are shown in Table 1.

Table 1.
Influences of the external environment on the efficiency of enterprise development by areas of development

Influences of the external environment	Directions of development			
	product quality development	management development	sales development	development of financial results
change in sales on the world market	0	0	0,1	0,1
changing the profitability of producers	0	0	0,1	0,1
changing the availability of lending to manufacturers to upgrade fixed assets	0	0	0,1	0,05
change in raw material prices	0,1	0,1	0,1	0,2
change in the cost of attracting financial resources	0,2	0,2	0	0,2
change in indices of availability of foreign markets	0,2	0,3	0,2	0,1
change in the competitive position of the enterprise in terms of price characteristics due to fluctuations in exchange rates	0	0,1	0,2	0,1
change in the competitive position of the enterprise in terms of product quality and its consumer properties	0,5	0,3	0,1	0,05

Source: own research

Thus, when assessing the development of the enterprise, it is proposed to take into account whether this development is achieved through quality management or due to positive environmental influences, or vice versa, failures in development plans due to poor management or unexpected negative external influences (Hroznyi et al., 2018). The calculation of the effectiveness of management of enterprise development taking into account the effects of the external environment is proposed to be carried out according to the formula:

$$R'_{t,n} = \frac{R_{t,n}}{Z_{t,n}},$$

where $R'_{t,n}$ – efficiency of enterprise development management taking into account the influences of the external environment in the n-th direction of development in the t-th time period;

$R_{t,n}$ – the effectiveness of enterprise development management without taking into account the influences of the external environment in the n-th direction of development in the t-th time period;

$Z_{t,n}$ – the total impact of the external environment on the development of the enterprise in the n-th direction of development in the t-th time period.

In turn, the effectiveness of enterprise development management without taking into account the influences of the external environment in the n-th direction of development is calculated as the difference between planned and actually achieved indicators, taking into account the weight of each indicator:

$$R_{t,n} = \sum_k v_k \frac{F_{t,k}}{P_{t,k}},$$

where v_k – the weight of the k-th indicator included in the index of efficiency of enterprise development management;

$F_{t,k}$ – the actual value in the t-th time period of the k-th indicator included in the index of efficiency of enterprise development management;

$P_{t,k}$ – the planned value in the t-th time period of the k-th indicator which is included in the index of efficiency of management of development of the enterprise.

The total impact of the external environment on the development of the enterprise in the n-th direction of development in the t-th time period is calculated depending on the change of the indicator compared to the previous period and the strength of its impact are shown in Table 1.

$$Z_{t,n} = \sum_u w_u^n \left(\frac{Q_{t,u}}{Q_{t-1,u}} \right)^{s_n},$$

where w_u^n – the strength of the influence of the u-th external factor on the n-th direction of enterprise development;

$Q_{t,u}$ – the value of the u-th external factor in the t-th time period;

$Q_{t-1,u}$ – the value of the u-th external factor in the t-1st time period;

s_n – degree that makes it possible to take into account the direction of the influence of the u-th external factor on the n-th direction of enterprise development,

$$s_n = \begin{cases} 1, & \text{if } Q_{t,u} > Q_{t-1,u} \text{ corresponds to the positive impact} \\ -1, & \text{if } Q_{t,u} < Q_{t-1,u} \text{ corresponds to the negative impact} \end{cases}$$

Thus, the value of the indicator $R'_{t,n} > 1$ shows that development management is generally effective despite distortions from external influences. That is, if the ratio of the indicator of the effectiveness of development management to the indicator of environmental impacts is more than one, it means that even in the case of positive impacts, advanced development is provided by management efficiency, not only favorable environmental conditions. Accordingly, in the case of negative impacts, if the indicator is above one, then development management was able to overcome the consequences of negative phenomena.

After assessing the effectiveness of enterprise development in general, a study of deviations from the plans of financial development can be carried out using indicators of compliance of financial support to the needs of enterprise development. The compliance of financial support with the objectives of enterprise development can be assessed by several criteria:

- compliance with the total amount;
- compliance with the schedule;
- compliance with the cost of financial security.

The total compliance indicator reflects whether the financial support is sufficient to implement the enterprise development plan.

$$F_n^T = \frac{\sum_{n,t} W_{n,t}^F}{\sum_{n,t} W_{n,t}^P},$$

where F_n^T – indicator of compliance of financial support with development tasks in the n-th direction;
 $W_{n,t}^F$ – the actual amount of financial support for the n-th direction of enterprise development in the t-th time period;
 $W_{n,t}^P$ – the planned amount of financial support for the n-th direction of enterprise development in the t-th time period.

The compliance indicator on the schedule of provision shows whether the financial security is sufficient in each period and what is the total deviation, and the excess in one stage does not allow to compensate for the shortfall in the other. The indicator is calculated by the cumulative total:

$$F_{n,t}^G = \frac{\sum_r (\min(W_{n,r}^F, W_{n,r}^P) - W_{n,r}^P)}{\sum_t W_{n,r}^P},$$

$r = 1, \dots, t,$

where $F_{n,t}^G$ – indicator of compliance of financial support with development tasks according to the schedule of financial support in the t-th time period according to the n-th direction of enterprise development;
 $W_{n,r}^F$ – the actual amount of financial support for the n-th direction of enterprise development in the r-th time period;
 $W_{n,r}^P$ – the planned amount of financial support for the n-th direction of enterprise development in the r-th time period.

The indicator of compliance with the cost of financial security reflects whether the plan to attract financial security for different sources of involvement, is calculated cumulatively:

$$F_{n,t}^C = \frac{\sum_r (C_{n,r}^P - C_{n,r}^F) W_{n,r}^F}{\sum_r C_{n,r}^P W_{n,r}^P},$$

$r = 1, \dots, t,$

where $F_{n,t}^C$ – indicator of compliance with the cost of financial support of the n-th direction of enterprise development in the t-th time period;
 $C_{n,r}^P$ – planned cost of financial support of the n-th direction of enterprise development in the r-th time period;
 $C_{n,r}^F$ – the actual cost of financial support of the n-th direction of enterprise development in the r-th time period;
 $W_{n,r}^F$ – the actual amount of financial support for the n-th direction of enterprise development in the r-th time period;
 $W_{n,r}^P$ – the planned amount of financial support for the n-th direction of enterprise development in the r-th time period.

Based on the results of the evaluation of the efficiency of the enterprise development and the evaluation of deviations from the plans, a direct evaluation of the efficiency of financial security management can be carried out. To do this, a score is set for each of the indicators of compliance of financial support to the

needs of enterprise development and for the indicator of the effectiveness of enterprise development in general.

Evaluation criteria are shown in Table 2.

Table 2.
Criteria for a multi-indicator system for evaluating the effectiveness of financial management.

Indicator	Evaluation criteria	The maximum is possible
An indicator of the effectiveness of enterprise development management, taking into account the effects of the external environment	12 points for each effective direction	48
Indicator of compliance of financial security in total	7 points for each effective direction	28
Indicator of compliance of financial support according to the schedule of provision	4 points for each effective direction	16
Indicator of compliance with the cost of financial security	2 points for each effective direction	8

Source: own research

Thus, the maximum possible assessment of the effectiveness of management of financing the development of the enterprise in each time period is equal to one hundred points. This assessment is considered ideal. A score of 92 to 99 indicates the presence of some problems in the system of financial support for development, but which certainly do not have consequences for the effectiveness of development as a whole. Such an assessment is possible when there are minor problems in only some areas in the cost of raising financial security or non-compliance with the schedule of providing financial security in no more than one area. A score of 76 to 91 is considered good, indicating problems in the system of financial support for development, but which do not have critical consequences. Such an assessment may arise when there are problems in several areas and in all indicators of compliance of financial support with development objectives, but in general the development of the enterprise does not suffer from this. The score from 52 to 75 is generally considered satisfactory but needs significant improvements in the financial management system. This assessment indicates possible problems with all types of indicators considered. Finally, a score of less than 51 is considered unsatisfactory and indicates significant deficiencies in the financial management system and the development of the agricultural machinery industry as a whole.

The overall assessment of the effectiveness of enterprise development finance management based on the results of all time periods under consideration can be calculated at least among all estimates received, or taking into account the fact that the last periods of analysis are more important and should be greater. In the latter case, the total estimate can be calculated as a time-weighted arithmetic mean:

$$E^F = \frac{\sum_t t E_t^F}{\sum_t t},$$

where E_t^F – general assessment of the effectiveness of financial management of the enterprise;
 E_t^F – the effectiveness of financial management of the enterprise in the t-th period.

The general assessment of the effectiveness of the management of financial security of the enterprise should be interpreted in the same way as the corresponding assessment in certain time periods.

Thus, the developed multi-indicator system for assessing the effectiveness of financial management of enterprise development is based on the selection of key indicators of enterprise development, determining their importance for global enterprise development and for financial management and establishing links between these indicators in the dynamics.

Results and Discussion

The practical approbation of the developed multi-indicator system for assessing the effectiveness of management of financing the development of enterprises was carried out at the domestic enterprise of agricultural engineering PJSC "Harvesters". It was established that development management without taking into account external influences was effective in the areas of product quality development, management development and development of financial results. At the same time, sales development was unsatisfactory both in terms of the calculation of integrated indicators and a simple estimate of sales. At the same time, the results of the environmental impact assessment showed that the impacts were positive in all areas. Moreover, the most positive were external influences in areas that contribute to measures to develop product quality and sales activities. The final indicators of the effectiveness of development management, taking into account the effects of the environment, show that as well as without taking into account external influences, three of the four areas were effective and outpaced compared to external factors are shown in Table 3.

Table 3.
Effectiveness of development management taking into account the effects of the external environment of PJSC "Harvesters" in 2020 by areas of development.

Indicator	Directions of development			
	product quality development	management development	sales development	development of financial results
Evaluations of the effectiveness of development management	1,600	1,128	0,853	1,364
Influences of the external environment on the efficiency of development	1,026	1,016	1,028	1,005
Effectiveness of development management taking into account the influences of the external environment	1,558	1,110	0,830	1,357

Source: own research

According to the results of compliance of financial support with the development objectives of PJSC "Harvesters" in 2020, it was established that the total amount of financial support plans in all areas except sales development are shown in Table 4.

Table 4.
Correspondence of financial support to the needs of development of PJSC "Harvesters" in 2020 by areas of development.

Directions of development	Indicators of compliance of financial support with the needs of enterprise development		
	compliance in total	compliance with the provision schedule	compliance with the cost of financial security
product quality development	1	0	-0,2
management development	1	0	-0,2
sales development	0,7	-0,3	-0,14
development of financial results	1	0	-0,2

Source: own research

Similarly to compliance indicator on the schedule. At the same time, plans for any of the areas of development have not been implemented in terms of financial security, which is due to the increase in the actual cost of attracting financial resources compared to the planned development strategy of PJSC "Harvesters". This indicates the need for more careful planning of sources of financial resources or to attract their own resources.

The overall assessment of the effectiveness of development finance management of PJSC "Harvesters" in 2020 is 69 points, ie it can be considered satisfactory in general, but needs significant improvements in the system of financial management of development. First of all, attention should be paid to the development sales of PJSC "Harvesters" in 2020 had both a decrease in sales and unsatisfactory results in the development of new markets for agricultural machinery. In addition, the segment of attracting financial resources, which needs to improve planning, is unsatisfactory.

Thus, thanks to the developed multi-indicator system for assessing the effectiveness of management of financing the development of enterprises, the analysis of financial support for the development of PJSC "Harvesters" in 2020 and conclusions on improving the management system of financial development.

Conclusions

It is established that the peculiarity of evaluating the effectiveness of management of financing the development of agricultural machinery in the information economy is the dependence of the evaluation process and criteria on the dynamics of the external environment. The effectiveness of the enterprise in general and its financial support in particular depends on how effectively the opportunities were used and the negative effects were overcome, and not just as an absolute or relative increase in any one indicator. Therefore, there is a need to develop a multi-indicator system for assessing the effectiveness of management of financing the development of enterprises.

Requirements to the multi-indicator system for assessing the effectiveness of management of financing the development of enterprises: based on key indicators of development of agricultural machinery, which are important for characterizing the global development of the enterprise and for assessing the effectiveness of financial management; reflection of the relationship between indicators of enterprise development and indicators of the effectiveness of its financial management in the dynamics; taking into account the peculiarities of the external environment in which the development of the enterprise of agricultural engineering and assessing the effectiveness of enterprise development and management of its financial support with adjustment for positive or negative external influences.

The developed multi-indicator system for assessing the effectiveness of management of financing the development of agricultural machinery of PJSC "Harvesters" was tested. It is concluded the effectiveness of development finance management of PJSC "Harvesters" in 2020 is generally satisfactory, but needs improvements in the financial management system of development. First of all, attention should be paid to the development of sales. In addition, the segment of attracting financial resources, which needs to improve planning, is unsatisfactory.

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