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FORMING MANAGEMENT IMPACTS IN AVIATION COMPANIES ECONOMIC DEVELOPMENT ADMINISTRATION SYSTEM

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Abstract

Purpose: *Oriented reflective approach to management involves restructuring of goal, ideal and pragmatic, creating a program of action, organizing, correcting, control the definition of the new strategy. This process is only possible with multidimensional analysis and reflection of all the administrative restructuring process and its elements in determining and planning activities, creating conditions of restructuring, predicting outcomes and consequences of making a choice of ways to solve problems means to achieve the goal of information called ' bonds with participants restructuring process and correction flow management process based on continuous reflection.* ***Methods:*** *Development of the system of economic development now requires the use of mechanisms for continuous monitoring of internal and external environment to identify factors that threaten businesses. Rest of this is possible through the use of diagnostic tests: static analysis, expert diagnosis, linear and dynamic programming.* ***Results:*** *Built as part of the study economic and mathematical models can determine the status and level of economic development potential of aerospace companies that were investigated, confirming the need for action to manage economic development. To develop the mechanism of competition in the aircraft building sector must: implementation in practice of management motivation mechanisms to ensure the appropriate level of interest in the functioning of airlines on the basis of private property; formation of economic market institutions in the field of aircraft construction, affecting the creation of a competitive environment.* ***Discussion:*** *Stipulates that in difficult economic crisis positive results can be achieved managers who are constantly looking for original approaches to inclusion in the development process by aligning internal external opportunities generated by market. It is concluded that aviation business management in times of economic instability or crisis requires the development and implementation of (the use of) anti-crisis program managers of higher managerial. Such programs should include a system of economic analysis, forecasting, design and implementation of complex innovative projects.*

Keywords: aviation company; economical development; formation; management impacts; management system.

1. Introduction

The process of reconciliation is impossible without the mechanism of individual actions and interests together to find the optimal mode of operation of the team. The existing and well-known means of overcoming the crisis situation can not be a factor advantages over others, should always introduce new, so different from the other, but rather to exceed them in order to survive. Generating and implementing new ideas that ultimately give the desired result, when the crisis brings positive. Development of the system of economic development now requires the use of mechanisms for continuous monitoring of internal and external environment to identify factors that threaten businesses. Realyzatsiya mehanyzmu rest of this is possible through the use of diagnostic tests: static analysis, expert diagnosis, linear and dynamic programming.

The aim of the research is to develop managerial influence in the management of economic development business aviation.

2. Analysis of the latest research and publications

In current circumstances, there is an objective need a combination of all the above approaches to predict crises in the enterprise and ways of overcoming them, and develop classical approaches that will form the system management decisions provided incomplete certainty. In many practical problems of economic modeling, studying various kinds of relations in economic, industrial systems, it is necessary on the basis of experimental data to express the dependent variable in the form of some mathematical function of independent variables - regressors,

that is to build a regression model. Regression analysis allows: to calculate regression models by defining parameter values - constant coefficients of the independent variables - rehressorah, often called factors; verify the hypothesis about the adequacy of supervision models available; use the model to predict values of the dependent variable when new or unobservable values of the independent variables [2-6].

Using differential equation balance of expenses and aviation equation that reflects the results of business operations of enterprises aviation division based control variable and fixed costs. Independent variables for building multi-correlation-regression model of management decisions listed in the Table. 1.

Table 1. Independent variables for building multifactor correlation-regression model of management decisions

Independent variable	Indicator
1	2
The production component of the economic development potential of aviation	
X1	Production output, ths. UAH.
X2	Production capacity (at the current price level) ths. UAH.
X3	Capital intensity of production
X4	Products materials consumption
X5	The average share of production growth through the intensification of production,%
X6	Factor of depreciation of fixed assets
Innovation and investment potential of economic development component of aviation	
X7	The growth rate of gross fixed investment
X8	The share of investment in tangible assets in total fixed investment
X9	The share of investment in improvements, reconstruction of the total investment in tangible assets
X10	The share of investment in fixed assets in total investment in the cost of improvements and reconstruction
X11	Growth rates of technological innovations
X12	Knowledge-based manufactured products
X13	Availability of intellectual property
X14	Progressiveness of equipment
The marketing component of the economic development potential of aviation	
X15	Profitability of products (sales)
X16	Rate of change of cost of sales of products
X17	Change in gross sales
X18	The pace of change in the value of receivables
X19	The share of marketing staff in total,%
X20	The rate of change of the share in the cost of sales proceeds from the sale
The management component of the economic development potential of aviation	
X21	Return on equity
X22	Coefficient of financial independence (autonomy)
X23	Coefficient of financial stability
X24	Turn payables (payables turnover ratio)
X25	The complexity of the configuration structure
HR component of the economic development potential of aviation	
X26	Productivity
X27	The average salary at the plant, UAH
X28	Labour costs and social measures of total output
X29	The ratio of certain categories of workers

Independent variable	Indicator
1	2
X30	The growth rate of the number of employees
The financial component of the economic development potential of aviation	
X31	Coefficient of autonomy (Kavt)
X32	Ratio of financial dependence (Keys)
X33	The percentage of stocks its own working capital (Ks)
X34	Absolute liquidity ratio
X35	Quick liquidity ratio
X36	Overall liquidity ratio
X37	Profitability ratio sale
X38	Operating profit ratio
X39	Net profit ratio of capital
X40	The coefficient of return on equity
X41	Net profit ratio of debt
X42	Net profit ratio of non-current assets
X43	Net profit ratio of current assets
X44	Asset turnover ratio
X45	Turnover ratio of current assets
X46	Inventory turnover ratio
X47	Receivable turnover ratio
X48	Accounts payable turnover ratio

Thus, built as part of the study economic and mathematical model depending on the overall performance of the integral index constituents potential economic development of enterprises aircraft industry. Fig. 2 shows dendohrama cluster separation aerospace compani

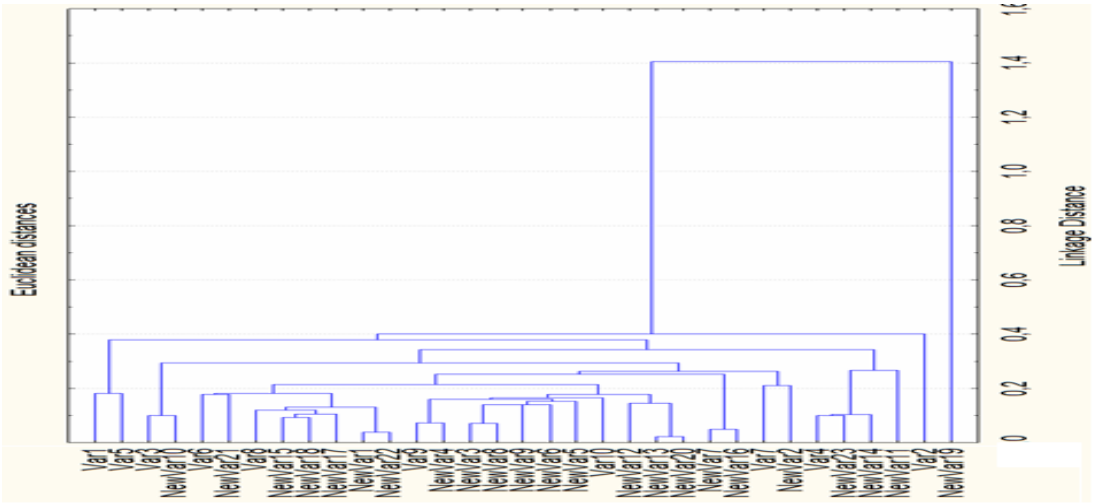

Fig. 2. Dendrogram of cluster separation of aviation companies

The level of enterprises economic development, which is determined due to calculated integral indicator, shows inefficient aviation enterprises management and financial policy.Having examined Fig. 2, determine the level of clusters of aviation companies, which are listed in the Table 2.

Table 2. Level of clusters of aviation companies

Level of clusters		
1st cluster	2nd cluster	3rd cluster
ZAT "PMZ"	VAT "Dnipr. Elektromehan. zavod"	ZAT "Avionika"
VAT "Aviakontrol""	TOV "Aviaspetstehnika Impeks"	VAT "Artem – kontakt"
ZAT "Artemivskiy elektrotehnichnyi zavod"	DNVP "Obyednannya Komunar"	TOV "Gustav"
VAT "Vovchanskyi agregatnyi zavod"	VAT "Yum plus"	TOV "Patriot Air"
VAT "Naukovo-tehnichnyi kompleks "Elektronprylad""	ZAT "Aerokos"	VAT "Elmiz"
ZAT "Aviaremontne pidpryemstvo Urarp"	ZAT "Aura"	VAT "Kyivskyi zavod "Radar""
TOV "Revers"	VAT "Motor Sich"	ZAT ""NVP" Kontur"
ZAT "Zaporizka regionalna zovn. ekon. asitsiatsiya"	DP "Kyivskyi aviazavod "Aviant""	TOV "Otto"
	VAT "Elektron"	ZAT "Liliental"
	VAT "Kyivskyi radiozavod"	VAT "Promin""
	VAT "ZZ "Elektroavtomatyka""	VAT "Universal-Avia"
	PF "Space"	
	DP "Kharkivskyi mashinobudivnyi zavod "Fed""	
	"Kharkivske derzhavne pidpryemstvo aviabuduvannya"	

Having examined the level of aviation clusters of enterprises can be concluded that all aviation companies that were analyzed, separated in three clusters, which will be composed of model-making for clusters of enterprises in terms of economic development business aviation (tab. 3).

Table 3. Model-making for clusters of enterprises in terms of economic development business aviation

The regression equation	Multiple R	R - square	Normalised R - square	Criterion of Fisher F	Standard error
1 cluster. Enterprises of aviation with a high level of economic development					
У = 0,513-0,119X3+0,285X8 + 0,945X36 - 0,02X39 + 0,45X43	0,842	0,688	0,608	8,779	1,227
2 cluster. Enterprises of aviation with an average level of economic development					
У = 0,48+0,694X15-0,431X34 + 0,101X40 + +0,831X42 + 0,055X45	0,942	0,859	0,805	13,700	2,533
3 cluster. Enterprises aviation low level of economic development					
У = 0,206+0,09X11+0,312X23 + 0,93X35 - 0,088X43 + 0,946X48	0,879	0,845	0,824	14,245	3,944

The author developed management decision for each cluster, which is general systemic character to management decisions economic development enterprises all across the field of aviation, which is not very correct from an economic point of view, but made it possible to identify the most significant and important indicators of industrial and economic Business enterprises investigated [1-4].

Determine the correlation coefficient R and conduct statistical evaluation of its significance. In the process of determining the correlation coefficient R by using statistical analysis package «Statistica 6.0» was obtained following regression statistics for enterprises aircraft industry. Pair correlation coefficient (Multiple R) is 0.96, indicating a high degree of communication between the density indicators that form each of the components of the economic development potential of enterprise (personnel, production, innovation and investment, financial, marketing, management), and general integral indicator of economic development enterprises.

The coefficient of determination (R-squared), according to calculations, is 0,93. This means that at least 93.0% variation indices that form each of the components of the economic development potential of the enterprise (ie changes in their share) due to the variation of the total integral indicator of economic development enterprises.

Thus, parameters that form each of the components of the potential economic development of enterprises are important components to consider when predicting the level of economic development of enterprises aircraft industry.

Normalised R-squared shows how adding a new variable model can improve the quality, but the quality of the diagnostic value and cost savings for the purpose of this factor is rarely used because as the number of variables and the number of observations of its meaning can not always change upwards. Standard error gives only a general assessment of the accuracy of the regression coefficient, but it does not carry information about where the resulting decline: the end or within the distribution and therefore relatively inaccurate. Further analysis is used to determine the significance of the joint contribution of component test ratios for the t-test proved St'yudenta adequacy of the model. In accordance with standard values equal to 102.9 F. This value is much higher tabular F. This shows the statistical significance of the equation as a whole, therefore, an adequate model for the F-Fisher criterion.

3. Conclusion

Thus, built as part of the study economic and mathematical models can determine the status and level of economic development potential of aerospace companies that were investigated, confirming the need for action to manage economic development. To develop the mechanism of competition in the aircraft building sector must: implementation in practice of management motivation mechanisms to ensure the appropriate level of interest in the functioning of airlines on the basis of private property; formation of economic market institutions in the field of aircraft construction, affecting the creation of a competitive environment; development of market infrastructure that serves the aerospace sector, and developing on the basis of a competitive mechanism; protection of domestic producers and domestic market; improvement of the legal framework governing imperfect competition, and provides social protection; restructuring of public institutions to decentralization of regulatory functions. In general, all named causes of the crisis is closely interconnected and create a complex set of cause-effect relationships.

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В.В. Прохорова[1], Ю.Є. Безугла[2]. Формування системи управління економічним розвитком авіа-підприємств.

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Мета: Орієнтовано-рефлексивний підхід до управління передбачає реструктуризацію мети. Цей процес можливий тільки при багатовимірному аналізі й відображенні всього адміністративного процесу реструктуризації та його елементів у визначенні та плануванні діяльності, створенні умов реструктуризації, прогнозуванні результатів і наслідків вибору шляхів вирішення проблеми, засобів досягнення мети. **Методи:** Розвиток системи економічного розвитку в даний час вимагає використання механізмів для безперервного моніторингу внутрішнього і зовнішнього середовища і виявлення чинників, які ставлять під загрозу бізнес. Реалізація механізму можлива за рахунок використання діагностичних тестів: статичного аналізу, експертної діагностики, лінійного і динамічного програмування. **Результати:** Економічні і математичні моделі, можуть визначити статус і рівень економічного потенціалу розвитку підприємств, які були досліджені, що підтверджують необхідність вжиття заходів для управління економічного розвитку. Для того, щоб розробити механізм конкуренції в авіабудівній галузі необхідно: впровадження в практику механізмів мотивації управління для забезпечення належного рівня зацікавленості у функціонуванні авіакомпаній на основі приватної власності; формування конкурентного середовища. **Обговорення:** Передбачається, що в складному економічній кризі позитивні результати можуть бути досягнуті менеджерами, які постійно шукають оригінальні підходи до включення в процес розвитку, поєднавши внутрішні зовнішні можливості, які генеруються ринком. Зроблено висновок про те, що менеджмент авіаційного бізнесу в умовах економічної нестабільності або кризи вимагає розробки і реалізації (використання) менеджерів антикризової програми вищого управлінського рівня. Такі програми повинні включати в себе систему економічного аналізу, прогнозування, проектування і реалізації комплексних інноваційних проектів.

Ключові слова: авіаційна компанія; економічний розвиток; система управління; управління; формування.

В.В. Прохорова[1], Ю.Е. Безуглая[2]. Формирование системы управления экономическим развитием авиапредприятий

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Цель: Ориентированно-рефлексивный подход к управлению предполагает реструктуризацию цели. Этот процесс возможен только при многомерном анализе и отражении всего административного процесса реструктуризации и его элементов в определении и планировании деятельности, создании условий реструктуризации, прогнозировании результатов и последствий выбора, путей решения проблемы средств достижения цели. **Методы:** Развитие системы экономического развития в настоящее время требует использования механизмов для непрерывного мониторинга внутренней и внешней среды и выявления факторов, которые ставят под угрозу бизнес. Реализация механизма возможна за счет использования диагностических тестов: статического анализа, экспертной диагностики, линейного и динамического программирования. **Результаты:** Экономические и математические модели, могут определить статус и уровень потенциала экономического развития исследованных компаний, подтверждая необходимость принятия мер для

управления экономического развития. Для того, чтобы разработать механизм конкуренции в авиастроительной отрасли необходимо: внедрение в практику механизмов мотивации управления для обеспечения надлежащего уровня заинтересованности в функционировании авиакомпаний на основе частной собственности; формирование экономических рыночных институтов в области строительства воздушных судов, влияющих на создание конкурентной среды. **Обсуждение:** Предусматривается, что в сложном экономическом кризисе положительные результаты могут быть достигнуты менеджерами, которые постоянно ищут оригинальные подходы к включению в процесс развития, совместив внутренние внешние возможности, генерируемые рынком. Сделан вывод о том, что менеджмент авиационного бизнеса в условиях экономической нестабильности или кризиса требует (использования) менеджеров антикризисной программы высшего управленческого уровня. Такие программы должны включать в себя систему экономического анализа, прогнозирования, проектирования и реализации комплексных инновационных проектов.
Ключевые слова: авиационная компания; правление; система управления; формирование; экономическое развитие.

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