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## **EVALUATION OF THE OWNERS OF AGRICULTURAL HOLDINGS REGARDING THE APPLICATION OF SOFTWARE IN THEIR OPERATIONS WITH THE AIM OF IMPROVING MANAGEMENT**

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**Abstract:** The evaluation of the owners of agricultural holdings regarding innovative approaches in business is one of the ways by which the overall quality of business can be raised. One of the modern ways of such observation is the application of software in the business of agricultural farms, and the main goal would be to improve the entire management process in them. The results obtained by the authors through the application of a paired sample using the T-test show the existence of differences in the given ratings of farm owners regarding the introduction of innovative software ( $p=.00$ ), that is, regarding the application of the software and its practical application in the business of the farm.

**Ključne reči:** *Agriculture, application of software, business efficiency*

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## INTRODUCTION

In an effort to improve the general operations of numerous entities, it is necessary to conduct research on how the decision-makers in them see the practical situation regarding certain parts related to management [1-5].

One of the ways to improve the process of making valid decisions in agricultural enterprises and organizational forms such as agricultural farms is to investigate their evaluation, that is, the evaluation of the management holder in the matter of decision-making in relation to the effects on business [6-10].

Innovative approaches in business are ways that can be used to raise the overall quality of business in any business organization. Therefore, the issue of organization in the broadest form of agriculture, that is, in the organization of agricultural farms, can be observed with great interest in relation to the application of software in the operation of agricultural farms [11-16].

Improving the making of valid decisions should be a continuous goal of improving the entire management process in agricultural activity [17-20].

## MATERIALS AND METHODS

The assessment of the owners of agricultural holdings in relation to the use of the available software fundamentally affects the security of financial reporting and therefore their operations was the focus of the author's research.

Based on that, a survey of 141 agricultural farms was conducted in the period June-August 2023 in the Republic of Serbia. The goal was to find out the attitudes of farm owners regarding the use of existing software in relation to the innovative one in use, which monitored production results in the farms themselves and financial results in business. Based on that, the authors present the obtained results in Tables 1-2.

The reliability of the research, i.e. the results obtained after the survey, was done by using paired samples, i.e. by applying a T-test based on the obtained assessment of the owners of agricultural farms regarding the introduction of existing and innovative software in the business of surveyed agricultural farms.

Statistical processing of data and analyzes were performed using the software IBM SPSS (Statistical Package of Social Science) version 25. The level of 0.05 was used for the threshold value of the existence of significance.

## RESEARCH RESULTS AND DISCUSSIONS

The results obtained by the authors through the application of the evaluations of farm owners regarding the introduction of existing and innovative software in business are systematized in Table 1.

They are strengthened in Table 2 by the presentation of paired samples using the T-test based on the obtained evaluation of the owners of agricultural farms to the issue of introducing existing and innovative software in business.

Table 1. Presentation of the obtained results based on the obtained assessment of the owners of agricultural holdings regarding the introduction of existing and innovative software in business

Grades given	N	Mean	Std. Deviation	Std. Error Mean
Ratings based on existing software	141	7.6450	.68409	.05700
Ratings based on innovative software		9.4019	.66175	.05511

\*Statistical significance at the level of 0.05

Table 2. Paired sample T-test based on the received rating of agricultural farm owners regarding the introduction of existing and innovative software in business

Grades given	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig.
Ratings based on existing software	-	.99119	.08259	-1.92021	-1.59365	-21.268	140	.000
Ratings based on innovative software	1.75690							

\*Statistical significance at the level of 0.05

Based on the presentation in Table 1, we can see the existence of differences in the assessment of the owners of agricultural farms regarding the application of classic software and innovative software in their regular operations. Namely, the obtained value (Mean) before the introduction of the innovative software in business was 7.6450 and the mean value obtained after the introduction of the innovative software in the business of farms was 9.4019.

Based on the presentation in Table 2, i.e. the presentation of the results of the paired sample T-test. It is clear and that there are differences in the ratings given by the owners of agricultural farms regarding the introduction of classical and innovative software in business, i.e. the results of the t-test for independent samples show that there are significant differences (p=.00) regarding the existence of a software business and its practical application.

## CONCLUSION

There are numerous ways to improve business performance. One of the ways is to obtain valid impact indicators, especially regarding the practical application of innovative approaches in business, through the application of the assessment of agricultural farm owners. In this way, it is possible to improve the overall quality of business, especially in terms of security, accuracy and efficiency of business, through the application of, for example, innovative software. In this paper, the authors pointed out the application of modern innovative software in the business of agricultural farms.

The goal was to improve the entire management process in agricultural holdings.

The results obtained by the authors through the use of the T-test show the existence of significant differences regarding the introduction of innovative software ( $p=.00$ ) in the business of agricultural holdings.

## CONFLICT OF INTEREST

None is declared.

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**OCENA VLASNIKA POLJOPRIVREDNIH GAZDINSTAVA PO PITANJU PRIMENE  
SOFTVERA U POSLOVANJU, SA CILJEM UNAPREĐENJA UPRAVLJANJA**

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**Abstract:** Ocena vlasnika poljoprivrednih gazdinstava po pitanju inovativnih pristupa u poslovanju je jedan od načina čijom primenom se može podići ukupni kvalitet poslovanja.

Jedan od savremenih načina takvog posmatranja je primena softvera u poslovanju poljoprivrednih gazdinstava a osnovni cilj bi bio da se unapredi celokupni proces upravljanja.

Rezultati do kojih su došli autori putem primene uvezanog uzorka korišćenjem T-testa pokazuju postojanje razlika u datim ocenama vlasnika poljoprivrednih gazdinstava po pitanju uvođenja inovativnog softvera ( $p=0.00$ ) odnosno u pogledu primene softvera i njegove praktične primene u poslovanju poljoprivrednog gazdinstva.

**Key words:** *poljoprivredno gazdinstvo, inovativni softver, efikasnost poslovanja.*

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