

The Economic Performance of the Union of Kankelen Market Groups and the Nerica Union in the Prefecture of Faranah, Republic of Guinea

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DOI : <https://doi.org/10.52403/ijrr.20240813>

ABSTRACT

The strategic evaluation of the agricultural operations of the Union of Groupements marketaichers Kankelen and the Union NERICA in the prefecture of Faranah is based on the economic dimension that can highlight the challenges linked to market gardening and rice cultivation in this locality. The work of said evaluation presents a model for evaluating the economic performance of market gardening and rice farms on the economic performance of agriculture, drawing inspiration from the two unions in this prefecture. This work focuses on the multi-component approach to economic performance using the combination of ten (10) indicators structured into four components (economic and financial viability, independence, transmissibility and efficiency) whose judgment reference is based on the maximum possible performance score. As part of the proposed economic analysis, it is based on version 4 of the Farm Sustainability Indicator Method (IDEA). The application of this economic performance model of the UGMK and the NERICA union is based on ten (10) market gardening groups and nine rice growing groups. This evaluation extends to the level of the members of the different groups numbering

three hundred and eighty-three (383) including three hundred and thirty (330) women, fifty-three (53) men and two hundred and fourteen (214) young people, we making it possible to identify the realities of economic vulnerability and the situation of fragility differentiated between groups of different unions and opens the vision to a renewal of the analysis of groups (healthy and failing) which is regularly implemented in this rural environment. The results obtained in relation to the maximum possible score of 100 points are as follows:

The union of Kankelen market gardening groups presents the following results: the economic performance scores of the seven (7) groups are greater than or equal to 50% and those of the three (3) others are less than 50%. Hence this union is economically efficient with an average score of 60.42%.

For the NERICA union, also presents the following results: five (5) groups present scores greater than or equal to 50% and those of the four (4) other groups are less than 50% so this second union is also economically efficient with a average score of 59.72%.

This work made it possible to know the economic performance of these unions through their groups in the prefecture of Faranah, Republic of Guinea.

Keywords: Economic performance, Exploitation, market gardening, Rice farming, viability, Sustainability, Guinea.

INTRODUCTION

Professional agricultural organizations are today faced with enormous problems including the non-consolidation of economic performance, lack of financial resources, plant attacks, epidemiological diseases, access to land, change consumption patterns and climate deregulation, the latter is due to galloping demographic pressure. Agriculture is a growing sector due to the increase in food needs (Maseko et al, 2017), but this growth is not linked to economically efficient agriculture. In this context, economic analysis as well as the strategic management of agricultural operations (Jenneaux, 2016) denotes the implication of the revision of the traditional method of economic performance in order to take into account the multidimensional analysis of challenges and support organizations agricultural professionals towards sustainable agriculture.

The performance of an organization, in the economic approach, remains oriented towards the objectives essentially internal to the company, oriented to the creation of the means to ultimately obtain a result. Analyzing the economic performance of farms for sustainable agriculture implies no longer relying solely on economic and financial criteria (Iorino, 2003). There is no simple definition of the word performance because of the polysemy of such a concept which refers us to three possible options: a process of obtaining the result, an idea of achieving the objective and the means allowing it to be achieved. 'obtain this result. (Bourguignon 1997),

This result highlights three categories of performance representations:

- Performance is success, it depends on the social representations emanating from success which can vary depending on the actors and this result must always be put into perspective with the benchmark of value put into competition;

- Performance is the result of action, it represents the level of achievement of set objectives;

- Performance is action, it refers to the process, to the ability to implement skills.

Performance is a concept far from objective, which is why it is difficult to define; it is the result of a social construction (Naro, 2005). An in-depth analysis of the Neely literature in 2005 shows the limits of this concept evolving over time.

In economic and financial literature, it is generally linked to both the optimization of resources in their efficient use but also to the strategic implementation of an organization's objectives (Platet-Pierro, 2009).

The general objective of this article is the presentation of the result of the research which is based on the model for evaluating the overall economic performance based on the method for evaluating the sustainability of a farm revised by version 4 of the method IDEA. This theoretical framework is at the origin of the choice of ten (10) indicators coming from the hierarchical structuring of four components. This evaluation model is multidimensional in nature of economic and financial performance but also factors of economic independence, transferability and economic efficiency.

Economic performance measures results according to the degree of productivity and the degree of competitiveness.

Financial performance uses ratios and quantities such as profitability, economic and financial profitability.

To ultimately materialize the concept of overall economic performance and present the detailed model, this work is structured into six parts. The first part highlights the different approaches to overall economic performance, the second focuses on the method of evaluating overall economic performance and the third focuses on the illustration based on two scales of analysis.

1. Approach to overall economic performance

1.1. The concept of economic performance:

The definition of the concept of economic performance is as follows: according to (Bouquin, 1986; Bourguignon, Platet-Pierrot, 2009) that performance constitutes the process by which managers “guarantee that resources are obtained and used effectively and efficiently to achievement of the organization's objectives. For Anthony, 1965, performance management involves its evaluation to identify whether the objectives set have been achieved and to propose the measures to be implemented (Lorino, 1991). Although this definition is broad, in managerial practice, performance is often understood from a financial perspective.

Evaluating this performance amounts to analyzing whether the company has created value, over a specific time horizon. This evaluation involves the construction of “a competitive benchmark” which is understood through a dual analysis: profitability (equity and economic capital) and risks (operational, financial and bankruptcy) (Charreaux, 2000).

1.2. Approach to evaluate economic performance in agriculture

According to the IDEA method, economic performance is evaluated based on four components and ten sustainability indicators which are summarized in Table 1.

Table 1: the IDEA method of economic performance (Zahm, 2019)

Components	Indicator	Maximum score possible	
Economic and financial viability	Economic capacity	20	35
	Debt weight	10	
	Structural debt rate	5	
Independence	Fia autonomy	15	25
	Productive diversity	5	
	Sensitivity to aid	5	
Transmissibility	Transmissibility	10	15
	Probable sustainability	5	
Overall efficiency	Gross efficiency of the productive process	15	25
	Sobriety of inputs	10	
Total		100	100

2. MATERIAL AND METHODS

2.1. Materials

2.1.1. Presentation of the study area:

This study took place in the prefecture of Faranah, located 465 km from the capital Conakry, it is the capital of the administrative subdivision of the Faranah region.

The prefecture of Faranah has 299,612 inhabitants (RGPH 2016), a density of 23 inhabitants/km², transition zone between Middle Guinea and Forest Guinea, is located in the South-Eastern part of the Republic of Guinea.

It is between 10° 10' and 11° 02' North latitude and 10° 12' and 10°50' West longitude with an average attitude of 340 m. The choice of the prefecture was motivated by the fact that it is an agro-climatic zone favorable to the practice of market gardening and rice farming across enormous plains and lowlands.

It is limited:

In the North by the prefecture of Dabola and Kouroussa;

To the South by the prefecture of Guéckédou and Kissidougou;

To the East by the prefecture of Kissidougou and Kouroussa;

To the West by the prefecture of Mamou and the Republic of Sierra Leone.

It covers an area of 13,000 km² with a population of 78,108 inhabitants (RGPH, 2014).

It is made up of ten (16) rural communes plus the urban commune.

2.1.2. Collection, analysis and processing of data

The data was collected by the question sheets and is analyzed and processed with the software (Word, Excel and Origine Pro).

2.2. Methods:

2.2.1. Sampling:

The survey of these members of the two agricultural unions took place from October 15 to December 25, 2023. Covering the following information: main activity, cultivated area, type of labor, inputs used EBE and related information to the environment.

The representative sample in relation to the number of farms studied per group making up the union, was obtained using the normal approximation of the binominal distribution (Dagnelie, 1998) with the following formula:

$$N = \frac{P_i(1-P_i) \times U_{1-\frac{\alpha}{2}}^2}{d^2} \quad (1)$$

Or : N : the number of operators studied, Pi : the proportion of agricultural agricultural households, $U_{1-\frac{\alpha}{2}}^2$: the square value of the

quantile which is 3.84 for U percentile of 0.95 and the expected margin of error of 5%.

Based on the N values from the exploratory results of the two unions, for the NERICA union 192 members and for the UGMK 303 members who were retained. The sample is distributed in parallel according to the agricultural population targeted by group then by union.

We thus retained as a representative sample of 77 members for the NERICA union and 121 members for the UGMK.

To collect information on economic performance, the questionnaire is also the necessary element for using the IDEA V4 method.

2.2.2. Economic performance evaluation model

Table 2 : complete model for evaluating overall economic performance (Zahm, 2019)

Components	Indicators	Specific objective	Calculation method	Scoring mode corresponding to the indicator	Indicat or termin als	Maximum rating capped
Economic and financial viability	offEconomic growth	Increase production	CE=(EBE-BF) non-employee	CE<0 annual minimum wage note 0 0 has 0,5 note 4, 0,5 has 1 note 8, 1 has 1,5 note 12 1,5 has 2,5 note 16, >2,5 note 20	20	35
	Weight debt repayment/service		Total debt /EBE	< Has 30% note 10 30 has 40% note 8 40 has 50% note 6 50 has 60% note 4 >has 60% 0	10	
	Structural debt		Loan amounts/permanent capital	Less than 30% 5 30 à 60% 2 >à 60% 0	5	
Independence	Financial autonomy	Aims to ensure financial capacity	AF =total debt/EBE	DF < has 20% 15 20 and 25% : 12 25 and 30% : 9 30 and 35% : 6 35 and 40% : 3 40% : 0	15	25
	Productive diversification	A diversified operation aims to be	Diversification of the number of raw or processed	More than 20% du CA : > 3 products 5 > 2 products 2 1 product > à 20% 0	5	
	Sensitivity to additional		SA=Su mides/EB	SA < has 20% : 5 20 and 40% : 4 40 and 60% : 3	5	

				80 and 100% : 2 > has 100% : 0																																
Transmissibility	Economic transmissibility		10Is determined based on: -number of family members working full time during the year -Economic viability	<table border="1"> <tr> <td>V</td> <td>N</td> <td>Economic transmissibility</td> </tr> <tr> <td>< 5, 2</td> <td>5 and more</td> <td>10</td> </tr> <tr> <td></td> <td>2 has 4</td> <td>6</td> </tr> <tr> <td></td> <td>0 has 1</td> <td>4</td> </tr> <tr> <td>3, 2 < V</td> <td>5 and more</td> <td>6</td> </tr> <tr> <td>E < or = 5, 2</td> <td>2 has 4</td> <td>4</td> </tr> <tr> <td></td> <td>0 has 1</td> <td>2</td> </tr> <tr> <td>1, 2 < V</td> <td>5 and more</td> <td>4</td> </tr> <tr> <td>E < or = 3, 2</td> <td>2 has 4</td> <td>2</td> </tr> <tr> <td></td> <td>0 has 1</td> <td>0</td> </tr> </table>	V	N	Economic transmissibility	< 5, 2	5 and more	10		2 has 4	6		0 has 1	4	3, 2 < V	5 and more	6	E < or = 5, 2	2 has 4	4		0 has 1	2	1, 2 < V	5 and more	4	E < or = 3, 2	2 has 4	2		0 has 1	0	10	15
	V	N	Economic transmissibility																																	
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	Probable sustainability		Existence in 10 years	Almost certain existence in 10 years: 5 Probable existence: 4 Desired existence if possible: 1 Probable disparity in 10 years: 0	5																															
Overall efficiency	Gross efficiency	It aims for consistency of management through profitability and to refer to turnover to atteindre les	Efficiency=(Product-Input)/Product	- lower than 10% : 0 - 10 has 20% : 2 - 20 has 30% : 4 - 30 has 40% : 6 - 40 has 50% : 8 - 50 has 60% : 10 - 60 has 70% : 12 - 70 has 80% : 13 - 80 has 90% : 14 - better than 90% ; 15	15	25																														
	Sobriety of inputs		Productive sobriety in external input	If <4000 000FG/ha : 10 4 000 000/ha has 6 000 000FG/ha : 6 6 000 000/ha has 800000FG/ha : 4 8 000 000/ha has 13 000 000FG/ha : 2 >13 000 000FG/ha : 0	10																															

The example presented in the following table summarizes the results of the overall economic performance diagnosis established from a survey carried out in 2023 among market gardening and rice farmers in the context of research on overall economic performance. To arrive at this diagnosis, the raw value of each indicator is first calculated from the information collected. This value is

then compared to the maximum score taken as an analysis reference to be able to assign the performance score.

3. RESULTS

3.1. Evaluation of economic performance by component and by grouping of the UGMK

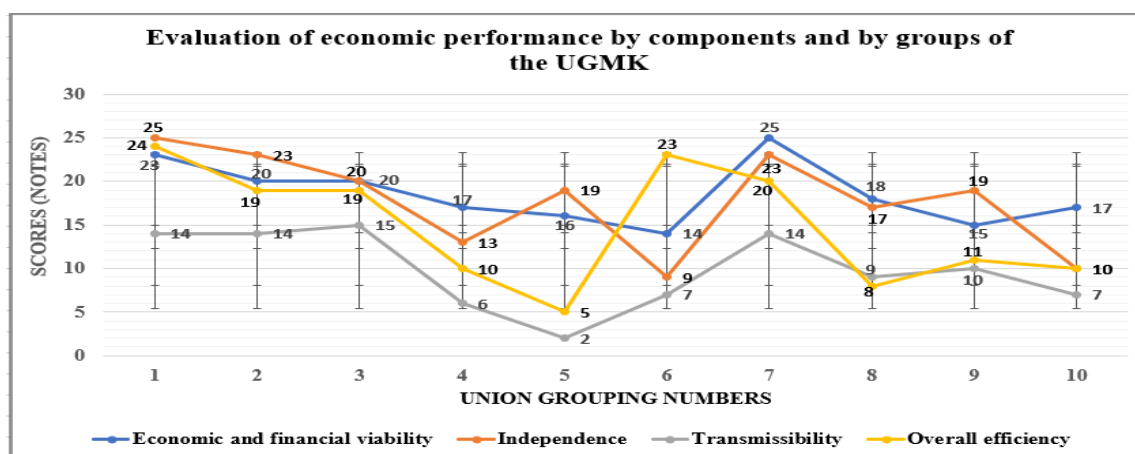


Figure 1: Evaluation of economic performance by component of the UGMK

Legend :1=Sagbaya; 2=Sinissy; 3=Salia; 4=Sakromaya ; ; 5=Dénabalo 6=Fassobara ; 7=Benda; 8=Kankelen ; 9=Sabougnouma; 10=Benkadi

The UGMK stands out from two categories of market gardening groups presenting different results in terms of the economic and financial viability component. The first category of six groupings (4,10,5,9 and 6) presents low scores, below 18/35. The other groups obtain maximum scores above 18/35. All the first category groups have recently been formalized, explaining their low economic capacity while the weight of the debt and the high debt rate.

The independence component is characterized by higher scores at the level of the Sagbaya group, followed by the Benda group respectively 25/25 and 23/25. This explains that the most generally financially autonomous groups are those which are older having benefited several professional training courses but also they have mastery of resource management and the best economic capacity and the lowest independence is observed at the level of the Fassobara groups with a score of 9/25. While the scores for

economic transmissibility are more strong in the first group (1,2,3,7) average of 13.5 means that they are capable of generating internal resources making it possible to maintain new generations within the farm capable of guaranteeing the sustainability of the said farm . The groups in the second group have higher capital but generate low EBITDA compared to self-employed labor. The last component, overall efficiency, presents a higher score for the Sagbaya and Fassobara groups, respectively 24/25 and 23/25, explaining excellent sobriety of inputs and the lowest score is observed at the level of the Dénabalo group, which explains an irrational use of inputs.

3.2. Evaluation of the overall economic performance of the UGMK

The score of each component in the overall economic performance of the Union des Groupements Maraichers Kankelen (UGMK) is recorded in Figure 2.

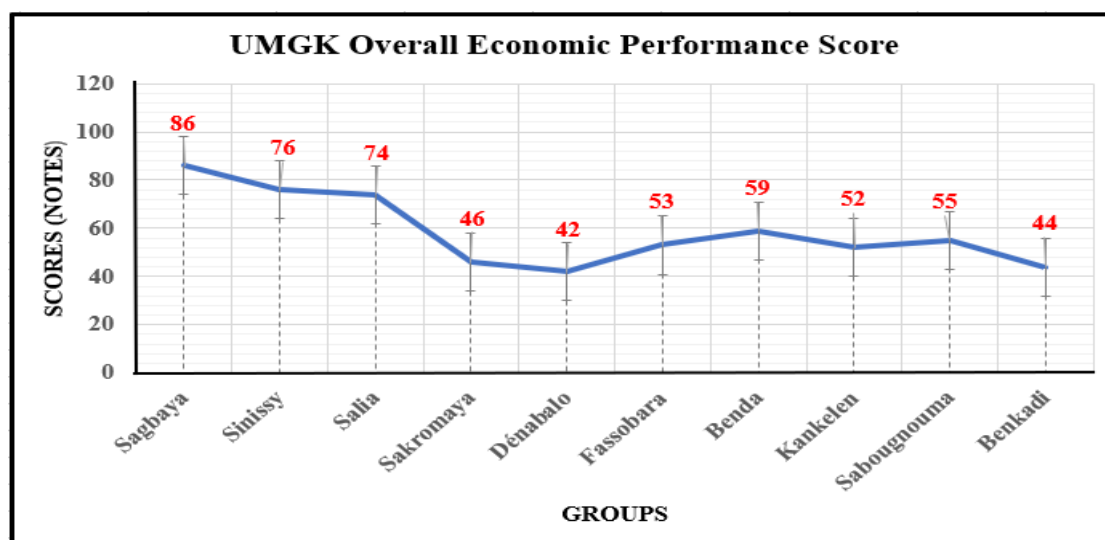


Figure 2: Evaluation of the overall economic performance of the UGMK

It appears from this figure that seven out of ten groups (7/10) of the union have reached the level of overall economic performance, hence with an average overall economic performance score of 60.40/100 and a median of 61/100 for the ten market gardening groups of the UGMK, which is justified by the fact that this union is economically efficient.

3.3. Comparative study of two methods of analyzing overall economic performance

This analysis of overall economic performance based on four components makes it possible to review the classification rank of groups with regard to their economic

performance which is in relation to the classic analysis of overall economic performance based on the economic and financial viability component alone. The model reveals a more obscure vision of the differences in economic performance when we follow the comparison of groupings which integrates the four components of economic sustainability. The following table presents the analysis through the comparison on the evolution of the ranking rank of the ten (10) groups of the UGMK in the prefecture of Faranah between the analysis based on the viability and financial component alone and the analysis based on the four components of the overall economic performance model.

Table 3: Ranking of the ten (10) UGMK groups according to two economic performance analyzes (economic and financial viability and overall economic performance).

		N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	
1st METHOD	Ranking rank of the ten groupings according to the level of performance for economic and financial viability (ranking in ascending order)											
	Number of groups	6	9	5	10	4	8	3	2	1	7	
	Economic and financial sustainability component score	35	14	15	16	17	17	18	20	20	23	25
	Level of achievement of maximum performance of	40	42,85	45,71	48,57	48,57	51	57	57	65	71	

	economic and financial viability										
2nd METHOD	Ranking of the ten groups according to the level of overall economic performance	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10
	Number of groups	5	10	4	8	6	9	7	3	2	1
	Overall economic performance rating	42	44	46	52	53	55	59	72	76	86
	Level of achievement of overall economic performance	42%	44%	46%	52%	53%	55%	59%	72%	76%	86%
Progress in the group		=	=	=	=	+	-	=	=	=	=
The + sign means an improvement in the performance rank in the group, the - sign means a drop in the performance rank and the = sign means stability in the rank between the two performance evaluation models. Meaning of the signs:											

This comparison results as follows:

- The groupings (8,3,2,1 and 7) have reached the level of short-term economic performance (greater than or equal to 50% on the economic and financial viability component) have also reached the level of overall economic performance (greater than or equal to 50%). The model makes it possible to highlight the difference in performance between the ten groupings which is not revealed in the short-term analysis of performance ;
- A group (Fassobara) has a low short-term economic performance rating (14/35 for the economic and financial viability component), that is to say a level of achievement of maximum performance

of economic and financial viability equal to 40% while it obtains an overall economic performance rating equal to 55/100 with level of achievement of overall economic performance equal to 53% this explains an improvement in the performance rank (moving from rank No. 1 at rank No. 5) ;

- This for three groupings (5,10 and 4) presents the level of short-term economic performance (less than 50% on the economic and financial viability component) and also a level of overall performance (less than 50%) which reflects a constant level of weakness.

3.4. Evaluation of economic performance by component and by UNERICA grouping

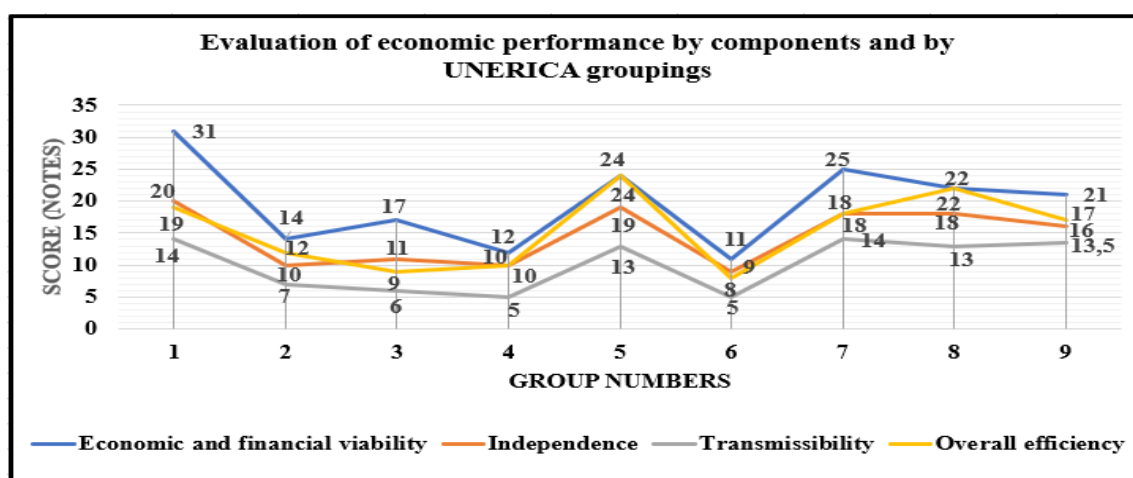


Figure 3: Evaluation of economic performance by components and by UNERICA groupings
 Legend : 1=Yèrèmassoron ; 2=Alhakabon ; 3=Mokélénko; 4=Sabari; 5=Sabati ; ; 6 =Wakila ; 7=Sabari2 ; 8=Limaniya ; 9=Fassodèmè

The NERICA union is characterized according to two categories of rice groups presenting different results in terms of the economic and financial viability component. The first category of four groupings (2,3,4 and 6) presents low scores with achieved levels of economic viability below 50%. The other five groupings obtain strong marks, with achieved levels of economic viability above 50%. All first category groupings have recently been formalized explaining their low economic capacity as well as the weight of debt and the high debt rate.

The independence component is characterized by low scores at the grouping level (2,3,4 and 6) with a score lower than 50% and the other groupings (1,5,7, 8 and 9) have a score higher than 50 %, this is explained by the fact that they have not only benefited from several professional training courses but also they have mastery of

resource management and the best economic capacity.

The economic transmissibility scores are stronger in the first group (1,5,7,8 and 9) with a level of overall economic performance greater than 50% than the second group (2,3,4 and 6) with a rating lower than 7/15 and they have higher capital but generate low EBITDA.

The last component, overall efficiency, presents a strong average score of 20/25 for the groupings (1,5,7,8 and 9) and the other four groupings present a low average score of 9.75/25.

Most of the NERICA union groups are characterized by high gross efficiency and excellent sobriety of inputs.

3.5. Evaluation of the overall economic performance of the UGMK

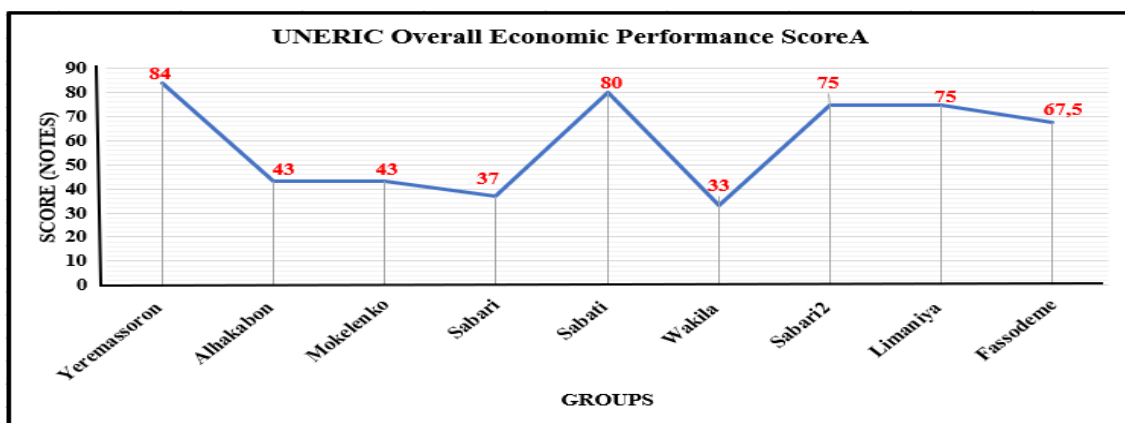


Figure 4: Evaluation of the overall economic performance of UNERICA

overall economic performance), hence with an average overall economic performance score of 59.72% and a median of 67% for the nine groupings of the NERICA union. This is justified by the fact that this union has the mastery of economic performance.

3.6. Comparative study of two methods of analyzing economic performance

This analysis of overall economic performance based on four components makes it possible to review the classification rank of groups with regard to their economic performance which is in relation to the classic analysis of overall economic performance

based on the economic and financial viability component alone. The model reveals a more obscure vision of the differences in economic performance when we follow the comparison of groupings which integrates the four components of economic sustainability. The following table presents the analysis through the comparison on the evolution of the ranking rank of the nine (9) NERICA Union groups in the prefecture of Faranah between the analysis based on the economic and financial viability component alone and the analysis based on the four components of the overall economic performance model.

Table 4 : Ranking of the nine (9) NERICA union groups according to two economic performance analyzes (economic and financial viability and overall economic performance)

1st METHOD	Ranking rank of the ten groupings according to the level of performance for economic and financial viability (ranking in ascending order)		N1	N2	N3	N4	N5	N6	N7	N8	N9
	Number of groups	Maximum score possible	6	4	2	3	9	8	5	7	1
	Economic and financial sustainability component score	35	11	12	14	17	21	22	24	25	31
	Level of achievement of maximum performance of economic and financial viability		31,42%	34,28%	40%	48,57%	60%	62,85%	68,57%	71%	88,57%
2nd METHOD	Ranking of the ten groups according to the level of overall economic performance		N1	N2	N3	N4	N5	N6	N7	N8	N9
	Number of groups		6	4	2	3	9	8	7	5	1
	Overall economic performance rating		33	37	43	43	67,5	75	75	80	
	Level of achievement of overall economic performance		33%	37%	43%	43%	67,5%	75%	75%	80%	84%
Progress in the group			=	=	=	=	=	=	=	=	
Meaning of the sign: The = sign means stability of the rank between the two performance evaluation models.											

This comparison results as follows:

- The groups (9,8,7,5 and 1) have reached the level of short-term economic performance (greater than or equal to 50% on the economic and financial viability component) have also reached the level of overall economic performance (greater than or equal to 50%). Which is justified by a positive performance rank constant ;
- This for four groupings (6,4,2 and 3) presents the level of short-term economic performance (less than 50% on the economic and financial viability component) and also a level of overall performance (less than 50%) which reflects a constant of the level of weakness ;
- The model makes it possible to highlight the difference in performance between the nine groupings which is not revealed in the short-term analysis of overall performance.

4.DISCUSSION

This evaluation of economic performance is part of the concept of economic performance based on the theoretical context of evaluating sustainability in agriculture according to the method proposed by IDEA V4.

Economic performance takes its source and value in individual and collective representation through the four components (economic and financial viability, independence, transmissibility and overall efficiency) of the farm sustainability method and ten indicators (capacity economic, debt weight, structural debt rate, financial autonomy, productive diversification, sensitivity to aid, economic transferability, probable sustainability, gross efficiency of the productive process and sobriety of inputs). This discussion focuses more particularly on questions of weighting based on the rules of the notion of additivity and the choice of thresholds which are key points for all multi-criteria evaluation methods.

The weighting was based on a consensus, taking into account the search for a maximum balance between the components and then different weightings according to their importance. It is different between the four components which requires the allocation of arbitrary scores for example the highest score is assigned to the economic and financial viability component. This choice took into account two reasons: One based on the exploitation of the agricultural union because it allows it to determine the economic viability in the short term, the other carries the interest granted in the literature about this

component and subsequently given the place that EBE reserves in this component as well as the transmissibility and gross efficiency of the productive process.

For the principle of capped weighting which results from a practical choice both disk and the principle of additive, there is a complementarity between the indicators for example to record a good EBE, it is necessary to compensate it by a low sobriety linked to purchases of very good value inputs. This principle of additivity is only partial, but the capped sum of the indicators of each component is equal to = the ceiling value of the component. This capping rule makes it possible to reach the level of overall performance of the component and then avoid compensation and overweighting between the four components. Unlike the rule of addition, it has a real meaning within the same component. To this end, a minority of gross efficiency can be partially compensated for a strong sobriety when we analyze the overall efficiency.

The results obtained at the level of the four components are as follows:

- The economic and financial viability for UGMK the average score is 18.50/35 with an achieved level of economic performance equal to 52.85% and for that of U. NERICA is 19.67 with an achieved level of economic performance equal to 56.20%, these results are lower than that of Zahm in 2019 with 24.6/35 average marks and an achieved level of overall performance equal to 70.28%.
- Financial dependence for UGMK the average score is 17.22/25 with an achieved level of performance equal to 76% and for that of U. NERICA is 14.56/25 with an achieved level of performance equal to 58.24%, these results are higher than that of Zahm in 2019 with 14.7/25 average marks and an achieved level of performance equal to 58.80%.
- The transmissibility for UGMK the average score is 9.8/15 with an achieved level of performance equal to 65.33% and for that of U. NERICA is 10.06/15 with

an achieved level of equal performance at 67.06%, these results are close to those of Zahm in 2019 with an average score of 12.5/20 and an achieved level of performance of 62.50% ;

- Overall efficiency: for UGMK the average score is 14.90/25 with an achieved level of performance equal to 59.60% and for that of U. NERICA is 15.44/25 with an achieved level performance equal to 61.76%, these results are higher than that of Zahm in 2019 with 6.4/20 average marks and an achieved level of performance equal to 32%.

The overall economic performance score of UGMK is equal to 60.42/100 and that of U. NERICA is 59.72/100 which is close to that of Zahm with 58.2/100.

These different results indicate that the rice and market gardening union are all efficient not only because of the subsidies obtained at the level of these unions through their partners (PNAFA, AgrFarm, UNDP, etc.) but also in relation to the economic capacity granted during the carrying out the activity.

We note that at the market gardening level, groups with small farms are generally the most economically efficient. This in particular thanks to the maintenance of a high diversity of market gardening species on their small surface area, with traditional and family type agriculture (Morel et al 2017, Serge, S, Ndjadi, 2021) then thanks to this diversity of species, they reduce phytosanitary constraints and market uncertainties. Ultimately this small farm guarantees financial dependence and gross efficiency of the productive process.

As far as rice cultivation is concerned, the oldest groups with a large surface area are generally the most economically efficient and the recent groups have the technical performance, which is justified by the fact that they use more mineral fertilizer for increase yield which does not promote an increase in profitability, that is to say economic performance. The result of Abdramane (2021) demonstrated that the

economic performance of a farm depends on the use of mineral fertilizers.

5. CONCLUSION, RECOMMENDATION AND PERSPECTIVE

5.1. Conclusion

In the context of the sustainability of agriculture, the challenges of respecting the economic performance of the Agricultural Unions (UGMK and UNERICA) in the prefecture of Faranah emerged through analyzes of this economic performance which requires the contribution of corrective measures for their operations. With a view to an economic evaluation of the Agricultural Unions relating to market gardening and rice growing, we have chosen to broaden these analyzes using the IDEA method.

The overall economic performance of the Unions is the level of economic sustainability. The proposed evaluation model corresponds to the economic dimension of the IDEA method, which includes ten (10) economic indicators structured into four (4) components. This assessment is based on economic and financial viability capable of reducing market uncertainties and which takes into account three (3) indicators: economic capacity, debt weight and structural debt rate. For independence, it allows one to move towards greater sustainability through a ratio of financial autonomy, also includes financial dependence, productive diversification and sensitivity to aid. Transmissibility assesses the importance of the capital to be taken over, that is to say too high capital is an obstacle to the resumption of the operation, if the operator or partner ceases the activity; it includes economic transmissibility and probable sustainability. While overall efficiency is the ability of a group to generate added value, the score is all the better when the share of operational costs in the product is limited, it is distinguished from the gross efficiency of the productive process and sobriety of inputs.

The analysis work is carried out on two different structures (the union of Kankélen

market gardening groups and the NERICA union). They allow farmers, agricultural advisors and operators to have an expanded economic performance tool for professional agricultural organizations and to identify, thanks to the structuring into four (4) components of the model, where the body of possible progress is located. improve this economic performance. Applied to different unions, it highlights the situation of differentiated fragility between unions and between groups of the same agricultural union and traces the path to a renewal of the analysis of groups which are implemented in the professional agricultural environment.

We close this discussion with research perspectives which are as follows:

- The first constitutes the overall efficiency component which includes the overall efficiency indicator of the productive process and the sobriety of input indicator makes it possible to support these agricultural unions towards quality agriculture, to discuss their capacity to qualify agricultural operations with regard to the high environmental value (HVE) concept (MAF, 2011). To date, sobriety of inputs has become an official indicator of HVE certification, for example the weight of inputs in turnover (< 30%), very close of the gross efficiency indicator of the productive process ;
- The second spreads the application of the simplified model on the RICA data. This research shows that overall economic performance can be calculated based on eight indicators to analyze the exploitation of these agricultural unions. This work could be enriched by introducing a theoretical evaluation method relating to productive diversification and probable sustainability which are not not calculable on the RICA because the basic data are not collected. It is therefore a question of comparing them on a certain number of agricultural operations already investigated of the said structures, the results obtained through the two final

performance scores global economy gives the simplified model versus the complete model.

Finally, on an operational level and with a view to supporting farmer organizations which will allow them to ultimately measure their farms against the expectations of farmers and consumers.

5.2. Recommendation

We would like to point out certain limitations recorded during the processing of the data collected for professional use of the overall economic performance model which constitutes a guide for agricultural advice or for farmers themselves, particularly relating to three indicators: economic capacity, economic transmissibility and sobriety in input.

- Economic capacity is an indicator which is evaluated on a flat rate basis according to financing needs (sum of annuities plus depreciation allowance plus intermediate consumption) ;
- The relevance of the thresholds for indicators of economic transmissibility and sobriety of inputs is relative depending on the objectives of the agricultural operating system ;
- The low-input system which fails to maximize the economic value of production but can be efficient on an environmental level ;
- Given the variability of these three indicators and the magnitude of overall economic performance, it would be good to spread the data search over a maximum of five years to ultimately take the average of the values over the five years.

Declaration by Authors

Acknowledgement: None

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

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How to cite this article: Fodé CISSE, Abdoulaye CISSE, Siba Kolín KOIVOGUI, Diawadou DIALLO, Yacouba CAMARA. The economic performance of the union of Kankelen market groups and the Nerica union in the prefecture of Faranah, Republic of Guinea. *International Journal of Research and Review*. 2024 ; 11(8) : 113-125. DOI : [10.52403/ijrr.20240813](https://doi.org/10.52403/ijrr.20240813)
