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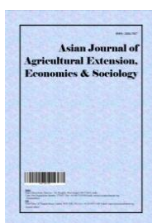
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Determinants of the Governance Performance of Producer Organizations: Case Study of Village Cotton Producers Cooperatives in Benin

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Authors' contributions

This work was carried out in collaboration among all authors. Authors ASAM and IM designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors GN, HE and SV managed the analyses of the study. All authors read and approved the final manuscript.

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ABSTRACT

Aims: This article aims to analyze the main factors that influence the performance of the governance of Producers' Organizations in the context of the Uniform Act of OHADA devoted to the Law on cooperative societies.

Study Design: The case study is based on Village Cotton Producers Cooperatives (CVPCs). Governance performance of CVPCs referred to and has been measured through respectively quality of internal governance (administrative) and quality of services provided to members.

Place and Duration of Study: The study has been carried out in the Department of Alibori, northern Benin Republic. Data collection period run from July to October 2019.

Methodology: We included 242 CVPCs selected in the six municipalities in the Department of

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Alibori. Primary data relating to socio-economic characteristics (the size of the CVPC, the age, the proportion of women in group, profile of leaders), and governance parameters related to internal governance and the quality of services provided to members.

Results: The results revealed that internal governance is generally poor and the quality of services provided to members is good. The proportion of women and the profile of leaders determine (bad) internal governance compared to good governance. The low profile of the leaders, the small size and the low proportion of women determine the quality of the services provided to members. The more the profile of leaders improves, the more likely it is to have good governance. On the other hand, the more the proportion of women in CVPCs increases, the more there is a chance of having bad internal governance rather than good governance.

Conclusion: These results suggest that the lower or medium the profile of leaders, the poorer or average internal governance and services provided to members will be. A better combination of all these determinants will improve both the quality of internal governance and the services provided to members in a CVPC.

Keywords: Performance; internal governance; quality of services provided to members; cotton producers' organizations; Benin.

1. INTRODUCTION

1.1 Background

1.1.1 Cotton in Benin economy

In Benin, the cotton sector is of great socio-economic importance due to the fact that cotton generates the largest share of foreign exchange estimated at 38.7% of Benin's export earnings in 2013 [1]. Also, cotton is the main large-scale hope for cash income from the growing season and the main lever for investment and development for family farming [2]. Since then, the cotton sector in Benin has long been under state control, through state structures and companies. But, faced with numerous macroeconomic imbalances, Benin had to engage in sector reforms in the early 1990s. This process was characterized by the transfer of skills to producer organizations, the liberalization of the input and ginning sub-sectors, and the establishment of the cotton inter-professional Association (*Association Interprofessionnelle du Coton, AIC*).

1.1.2 Management and organization challenges in the cotton sector

Thus, two groups of professional actors are involved in the management of the cotton sector in Benin: cotton ginners and producers' organizations. If the first two groups are made up of private companies, the producer organizations in this case called Village Co-operatives of Cotton Producers (CVPC) can be considered as "collective enterprises" created by producers,

managed by producers (elected representatives) in order to provide services to members. These CVPCs with their umbrella organization have had many successes in terms of supporting technical innovation, setting up services for farmers (information, training, agricultural advice, inputs), improving access to credit and to markets [3].

However, the poor governance of cotton producer organizations, has strongly affected the cohesion of producers [2]. In addition, organizations struggled to provide quality technical and managerial support services to their members or to influence the quality of services offered by third parties [2]. According to Hougbo [4], organizational and economic reasons underpinned the demotivation of actors, producers in this case, with the consequent abandonment of cotton.

1.1.3 The 9th Uniform Act of OHADA cooperative societies contribution

The 9th Uniform Act of OHADA Cooperative Societies adopted since May 15, 2011, which came into force on May 15, 2013, is perceived as a relevant solution to improve governance at the level of CVPC and of the sector in general. The 9th Uniform Act of OHADA Cooperative Societies sets itself the objective of standardizing cooperative law in the OHADA area (an area composed of seventeen States Parties in West and Central Africa, including Benin) in a prospect of improving the legal environment and economic development [5]. This Uniform Act aims at a better application of cooperative principles in order to achieve good performance in

governance and services to members within CVPCs.

1.1.4 Prior related studies

Despite the recognized interest and the enthusiasm shown for the compliance of CVPCs with the OHADA Uniform Act devoted to frame cooperative societies, the literature is very little oriented to assess their performance in terms of the quality of internal governance and services provided to members. On the other hand, the growing literature on producer organizations and collective actions has turned mainly to analyze the determinants of the success of agricultural cooperatives, considering their interest in reducing transaction costs and marketing efficiency [6-8], the improvement of the livelihood conditions of producers belonging to agricultural cooperatives [9], the importance of producer cooperatives on field performance [10]. These perspectives partially explore the services engaged by cooperatives for their members on the one hand, and place very little emphasis on governance practices on the other.

1.1.5 Main issues/contributions and the structure of the rest of paper

Therefore, there is a knowledge gap on the performance of CVPC following an approach to the quality of the services provided, but also internal governance (i.e., focus on administrative perspective).

This article aims to analyze the main factors that influence the performance of the governance of Producers' Organizations in the context of the OHADA Uniform Act of cooperative societies. The following sections present methodology, and results and discussion. This paper ended to the conclusion section.

2. METHODOLOGY

2.1 Analytical Framework

This study will approach organizational performance in the sense of effectiveness [11]. Following this perspective, effectiveness refers to the level of achievement of CVPCs' objectives and actions with regard to two dimensions: internal governance and services provided to members (Table 1).

There are many factors that can explain the performance of an organization. Our focus here is mainly on the socio-economic characteristics

such as the size, age, gender of the group, the profile of leaders associated with their level of education. We will explore the influence of these factors on the areas of organizational performance relating to quality of internal governance and the quality of service provided to members. Details on the assumptions related to each variable are presented in the subsection on data analysis based on the literature and some empirical foundations.

Table 1. Main areas and sub-areas of governance

Domains	Sub-domains
Internal governance	Administrative Governance Resources governance
Service provided to members	Credit supply Input supply Commercialization of products

Source: SNV et al. adapté [12,13]

2.2 Study Area

The study took place in the Alibori Department in northeastern Benin. It is bounded to the north by the Republic of Niger, to the north-west by the Republic of Burkina Faso, to the east by the Federal Republic of Nigeria, to the west by Atacora and to the south by the department of Borgou. Covering an area of 26,242 km² (23% of the national territory), Alibori is subdivided into six (6) municipalities which are: Malanville, Karimama, Ségbana, Gogounou, Banikoara and Kandi. Industrial agriculture in this zone is mainly cotton, with a production volume of the department that exceeds half of the national production and which accounts on average for one third of the CVPC workforce in the country. The six municipalities were considered for this study. The map of the study area is shown below (Fig. 1):

2.3 Sampling and Data Collection

CVPCs are the units of observation in this study. In total, 642 CVPC constitute the study population according to the report of the Interprofessional Cotton Association [14].

To calculate the sample size n, the following formula was applied.

$$\frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N} \right)} \tag{1}$$

N = 642: size of the population
 e = margin of error (percentage in decimal form)
 z = z-score
 z-score is the number of standard deviations of a given proportion from the mean.
 n = sample size.

The general rule is the larger the sample size, the more statistically significant it is, with the advantage of obtaining more reliable results. To obtain the CVPCs to be surveyed, we favored the weight of each municipality in the sample using the proportionality rule. Thus, the number of CVPC to be collected is known so that the sample is representative, namely 242 CVPC. Then we carried out the randomization in the R software based on the list of CVPC by municipality to make the selections. Table 2 shows the distribution of CVPC surveyed by municipality.

Data collection was therefore carried out through surveys using a questionnaire administered during a focus group for each CVPC. CVPC managers and some members provide the required information concerning their cooperative during the focus group. On average, 3-6 people were present for each CVPC focus groups, and a minimum of 1 to 2 of them are managers. Primary data are collected concerning socio-economic characteristics (the size of the CVPC, age, proportion of women in group, profile of leaders, etc.), and governance parameters related to internal governance and the quality of services provided to members.

2.4 Data Analysis

The data collected was codified then entered into Excel software and word processing was carried out with Word software. Descriptive statistics (frequency, mean, standard deviations, minimum, maximum) were used through the frequency tables intended to characterize the governance variables (internal governance and quality of services provided to members). A multinomial logistic regression was carried out to find out the determinants of internal governance and the services provided to members at CVPC level. The multinomial logistic regression was considered to be appropriate since the dependent variable "performance of internal governance and services provided to members" includes three modalities namely good, average, and poor. Good governance being considered as the benchmark. The analyzes were carried out using R software.

The practice of logistic regression is very close to that of linear regression. Linear regression is used to characterize the links between a quantitative variable to be explained (Y) and explanatory variables (X1, X2, X3,... Xn) using the model presented by the formula:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_tX_t + \varepsilon$$

Table 2. Distribution of CVPC surveyed by municipality

Municipalities	Number of CVPCs surveyed
Banikoara	86
Kandi	72
Gogounou	30
Karimama	7
Ségbana	18
Malanville	29
Total	242

Source: Authors, Field survey, Alibori (July-October, 2019)

For each explanatory variable, Xi is associated with a coefficient βi and therefore an ORi corresponding again to the exponential of this coefficient and which measures the association between the variable Xi and the disease (Y) in question. For each explanatory variable, this coefficient is adjusted on the other explanatory variables of the model.

The implementation of a logistic regression makes it possible to obtain the β coefficients (and thus the ORs) together with their confidence interval (generally at 95%), as well as a test of significance. Two models were developed corresponding respectively to the models of the determinants of internal governance, and of quality of services provided to members within CVPCs.

The variables introduced into the models as well as the expected signs are based on the following assumptions.

The size of cooperatives: Valette et al. [15] in their study on the survival of French agricultural cooperatives identify size as one of the factors that are positively associated with the survival of cooperatives. For Brullebaut et al. [16], the factors influencing the ownership-control / efficiency relationship of enterprise cooperatives are the size and heterogeneity of members. Thus, the size of cooperatives can positively influence the performance of internal governance and quality of services provided to members within CVPCs.

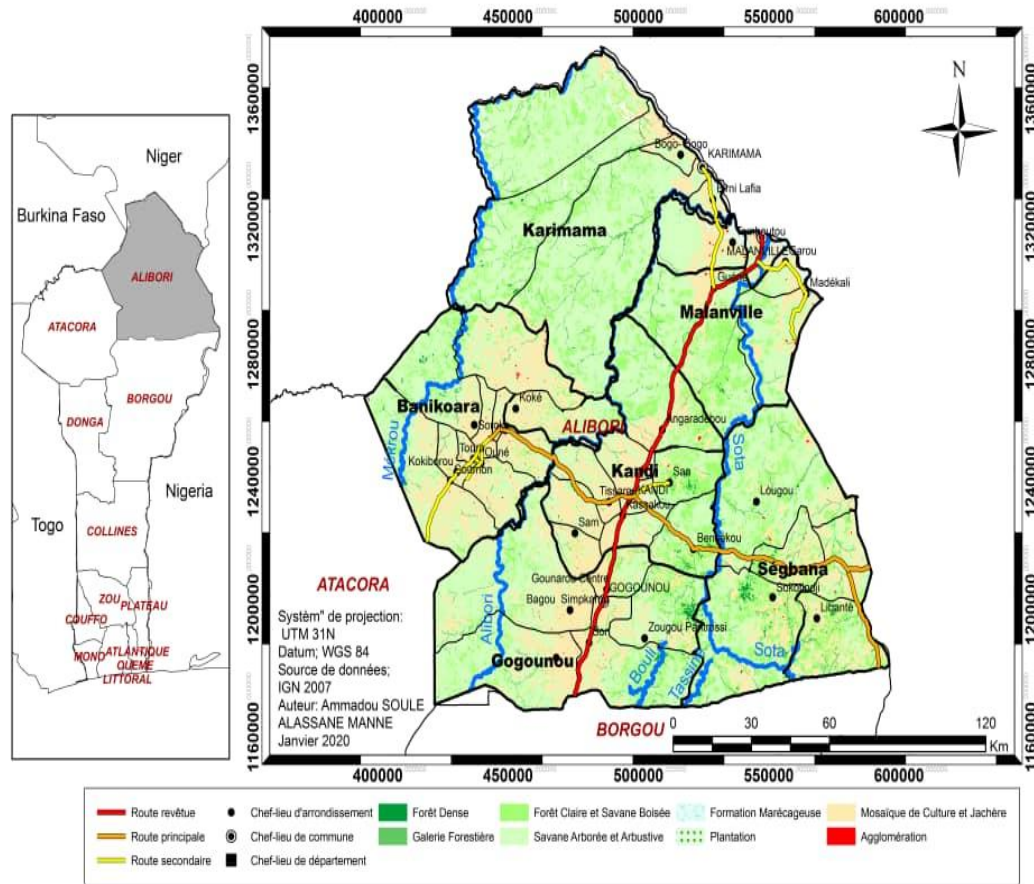


Fig. 1. The map of the study area

The profile of the leaders: Barraud-Didier and Henninger [17] affirmed that the leaders of cooperatives have a role to play in the loyalty of their members, that they can, through concrete actions, contribute to increase their level of loyalty. In addition, Ruf et al. [18] assert that attitudes of involvement and trust are likely to influence the loyalty behavior of members to their cooperative. For Shumeta and D'Haese [19], cooperative members who have received more education seem to benefit more from membership. In this study, the profile of leaders can positively or negatively influence governance performance (low or medium) compared to high governance.

Age: Valette et al. [15], in their study on the survival of French agricultural cooperatives, conclude that size and age are positively associated with the survival of cooperatives. Thus, seniority can positively influence the

performance of internal governance and the services provided to members.

The proportion of women within a group or gender of a group: According to Brullebaut et al. [16], the factors influencing the ownership-control / efficiency relationship of enterprise cooperatives are the size and heterogeneity of members. Barham and Chitemi [7], conclude that the gender composition of groups also affects the performance of group marketing, as a favorable factor. This study will take into account the proportion of women in cooperatives as a variable that can positively or negatively influence the performance of internal governance and the governance of services provided to members.

These four socio-economic characteristics are selected for reasons. Firstly, the 9th Uniform Act of OHADA Cooperative Societies built cooperative principles on gender and group size.

Secondly, the age of cooperative is related to four time periods in producer organization development phases in Benin; the last phase relating to the standardization based on the 9th Uniform Act of OHADA Cooperative Societies. Thirdly, the profile of leaders is selected based on the empirical considerations with regard to cooperatives functioning in Benin. Despite these reasons mentioned, it should be recognized some limitations to this study. In fact, there is a number of other variables that can influence the governance performance not included in our models [15,16,17,18].

Table 3 shows variables in the model with the signs expected.

3. RESULTS AND DISCUSSION

3.1 Results

This section presents the statistical analysis of the socio-demographic and economic characteristics of CVPC; the description of internal governance and the services provided to members on the one hand, and the analysis of the determinants of the performance of internal governance and the services provided to members.

3.1.1 Sociodemographic and economic characteristics of CVPC

Table 4 presents the statistics of the socio-demographic and economic characteristics of CVPCs. Analysis of the table shows that the majority of CVPCs are created during the economic liberalism period, i.e. a percentage of 96.69% with a minority (35.12%) of cooperatives which are recently created (after 2013). These

CVPCs are for the most part small (number less than 100) with a dominance of men, i.e., 77.22%. Few of the CVPCs have their leaders with a high profile (13.64%) against respectively 46.28% and 40.08% of the CVPCs with leaders who have a low profile, and an average profile. The Alibori Village Cotton Producers Cooperatives are mostly young, small cooperatives in which women are in the minority. These cooperatives are managed by managers who mostly have low and medium profiles.

3.1.2 Description of internal governance

Table 5 shows that administrative governance is poor with a percentage of 87.93% of cooperatives. However, 11.06% of cooperatives have average administrative governance quality. With regard to the governance of resources, the analysis shows that 61.15% of cooperatives have a poor governance level. Overall, as a result of all features described above, Table 5 reveals that 58.3% of surveyed CVPC have poor internal governance. Only 4.5% of CVPCs have good internal governance while 37.2% have average internal governance. We then conclude that the internal governance of cooperatives is generally poor at the level of the Alibori CVPCs.

3.1.3 Description of the quality of services provided to members

Table 6 reveals that on average 62.8% of cooperatives have a poor credits supply services. Regarding the inputs supply, the results show that on average 64.5% of cooperatives have a good quality services. The results also show that 99% of cooperatives have a good quality services in commercialization of products area.

Table 3. Variables of the regression model

Variables in the model	Modalities	Signs expected
Size	[15 ; 100[+
	[100 ; 917]	+
Profile of leaders	Low Profile (Less than half of leaders can read and write)	+/-
	Average profile (half of leaders can read and write)	+/-
	High profile (more than half of leaders can read and write)	+/-
Age (Period of creation)	[1960 ; 1975[(Period of colonial heritage)	+
	[1975 ; 1990[(revolutionary period)	+
	[1990 ; 2012] (economic liberalism period)	+
	2013 et + (Period of OHADA Law for standardization)	+
Gender	Proportion of women in group	+

+/- = positive or negative effect; + = positive effect

Source: Authors

Table 4. Socio-economic characteristics of CVPC

Variables	Percentage (%)
Age	
[1960; 1975[1.24
[1975; 1990[2.07
[1990; 2012]	61.57
[2013 et +	35.12
Total	100.00
Gender	
% of men	77.22
% of women	22.78
Total	100.00
Size of CVPC	
[15 ; 100[(Small size)	64.46
[100 ; 917] (High size)	35.54
Total	100.00
Profile of leaders	
Low Profile	46.28
Average Profile	40.08
High Profile	13.64
Total	100.00

Source: Field survey, Alibori (July-October, 2019)

Overall, Table 6 also shows that the good quality services is the most observed in CVPCs (50.40%) with regard to services provided to members. Only 13.42% of CVPCs claimed to have average quality while 36.18% of CVPCs claimed to have poor quality services.

3.1.4 Determinants of the performance of governance in CVPCs

3.1.4.1 Assessment of the quality of the models

Table 7 presents the assessment of the quality of the models. From this table, it emerges that McFadden's pseudo R² is different from 0 for the two models (1 and 2). The two models are globally significant at the 1% level. Indeed, the respective values of R² obtained in the two different models reflect the explanatory power of these models. In other words, the values 40.8% and 59% of the variations in performance respectively observed at the level of internal governance and the quality of services provided to members are explained by the variations of the variables introduced in these models.

Table 5. Internal governance in Alibori CVPC

Indicators	Good (%)	Medium (%)	Poor (%)
Administrative Governance			
Representation of all categories of members in management structures	0.4	3.3	96.3
The sharing of the management of the cooperative by the directors	0.4	13.2	86.4
Management of internal regulations	2.1	12.4	85.5
Knowledge and mastery of their positions and roles by managers	2.1	16.5	81.4
The holding of statutory meetings and the active participation of members	0.0	9.9	90.1
Quality of administrative governance	1.01	11.06	87.93
Resources Governance			
The existence and correct maintenance of financial and management documents for economic activities	1.7	32.2	66.1
Mobilization of internal financial resources by the cooperative	5.0	68.2	26.9
Literacy training for managers and members of technical teams	0.0	9.9	90.1
Management's ability to analyze financial documents	1.7	33.1	65.3
Acquisition / construction of infrastructure and equipment for the benefit of the cooperative	1.2	32.6	66.1
Maintenance and renewal of the cooperative's infrastructure and equipment	37.6	9.9	52.5
Quality of resources governance	7.87	30.98	61.15
Quality of internal governance	4.5	37.2	58.3

Source: Field survey, Alibori (July-October, 2019)

Table 6. Quality of services provided to members

Indicators	Good (%)	Medium (%)	Poor (%)
Credits supply services			
Eligibility of the cooperative for input credit	39.7	0	60.3
Collection by the cooperative of loans from members	5.4	18.2	76.4
The ability of managers to formulate and analyze loan requests	37.6	10.7	51.7
Overall quality of credits services	27.6	9.6	62.8
Inputs supply services			
The timely supply of quality seeds to members	90.2	6.1	3.7
The timely supply of quality fertilizer to members	95.5	3.1	14
Training of members in new production techniques	7.9	14.9	77.3
Overall quality inputs supply services	64.5	8.0	27.5
Commercialization of products			
Marketing of all members' production by the cooperative	99.0	1.0	0.0
Receipt of cotton funds for all production marketed by members of the cooperative	44.5	18.0	37.5
The time taken to receive cotton funds for all marketed production	33.8	48.8	17.4
Overall quality of commercialization of services	59.1	22.6	18.3
Quality of services provided to members	50.40	13.42	36.18

Source: Field survey, Alibori (July-October, 2019)

Table 7. Assessment of the quality of the models

	Internal governance	Quality of services provided to members
	Model 1	Model 2
Significance (p)	0.000	0.000
McFadden Pseudo R ²	0.408	0.590

Source: Field survey, Alibori (July-October, 2019)

Table 8. Determinants of internal governance

	Independent variables	Model 1
		Coefficient (p)
Poor Governance	Constant	40.097 (0.858)
	Profile of leaders	-18.630 (0.000) ***
	Size	0.561 (0.645)
	Age	-0,862 (0,284)
	Gender (% of women)	15.338 (0.000) ***
Medium Governance	Constant	31.915 (0.984)
	Profil of leaders	-15.734 (0.976)
	Size	1.455 (0.21)
	Age	-0.279 (0.708)
	Gender	15.08 (0.000) ***

***signification à 1%

Source: Field survey, Alibori (July-October, 2019)

3.1.4.2 Determinants of internal governance

Table 8 presents the determinants of internal governance. The analysis of this table shows that with regard to internal governance, at the level of

the "Poor governance" modality, only the coefficients of the "profile of leaders" and "Gender" modalities are significant. These are therefore the only modalities that significantly influence poor internal governance.

The interpretation of odd-ratios highlights that when the profile of leaders improves (from a low category to a higher category) there is less chance of having bad governance rather than good governance; in other words, the more the profile of leaders improves, the more chance there is of having good governance. On the other hand, the more the proportion of women increases, the more there is the chance of having bad governance rather than good governance. This result can be justified by the fact that leaders who have a high profile manage to better manage their cooperatives. Indeed, as the leaders master their roles or have a good capacity for analyzing financial documents and mobilizing internal financial resources, they will be able to monitor their group activities and play appropriately their roles.

With regard to medium governance, only the coefficient for the "Gender" modality is significant. The interpretation of odd ratios shows that the more the proportion of women increases, the more likely it is to have average governance rather than good governance. This may be justified by the fact that women who are members of cooperatives are not treated in the same way as men. This feeling of injustice will increase if the proportion of women increases, and then will compromise the performance indicators measured.

3.1.4.3 Determinants of quality of services provided to members

Table 9 presents the governance of services provided to members. Analysis of this table reveals that the coefficients for the modalities "Profile of leaders", "Group size" and "Gender" are significant. The odd-ratio shows that cooperatives whose leaders have a low profile are more likely to have medium quality of services provided to members rather than good quality of services provided. This can be justified by the fact that educated leaders are more likely to connect with umbrella organizations and others suppliers to facilitate appropriately services provision to members. As quality of services provided to members is at least good for the most of the CVPCs of Alibori, educated leaders are able to negotiate provision of services on behalf of their members on time.

With the regard to the size of cooperatives, cooperatives that are small size are more likely to have good quality of services provided to members rather than medium quality of services

provided. This result can be explained by the fact small size groups have less difficulty to get their members satisfied with services demanded (e.g. amount of inputs demanded).

On the other hand, in terms of the gender (proportion of women), compared to cooperatives with high proportions of women, cooperatives with a low proportion of women are more likely to have good quality of services rather than medium quality of services. This can be justified by the fact that all the women in the cooperative benefit from the different services when the number of women in the cooperative is small.

3.2 Discussions

The results of our study show that the internal governance of cooperatives is generally poor at the level of the Alibori CVPC. This result corroborates with that of M. N'Guetta [20] who concludes that 99% of the ineffectiveness of the union's cooperatives is due to their internal management and their own environment. In addition, Ruf et al. [18] justified poor internal governance by the fact that most cooperative members are guided by the maximization of their personal utility and do not play their role of checks and balances; thus, they do not get involved in the management of their cooperative. Our results also contradict that of Cornforth [21] who considers that the democratic perspective (naturally) dominates the governance of cooperative or mutual organizations.

The results show that the leader profile is a determining factor in the performance of internal governance and the low profile of leaders determines the quality of services provided to members. This result is in the same direction as that of Barraud-Didier and Henninger [17] who conclude that the leaders of cooperatives have a role to play in the loyalty of their members, that they can, through concrete actions, help to increase their level of loyalty.

For Shumeta and D'Haese [19], cooperative members who have received more education seem to benefit more from membership. Indeed, the analysis of governance involves that of cooperative-manager relationships. Within the framework of this cooperation action two variables: attitudes of involvement and trust are likely to influence the loyalty behavior of members of their cooperative. In addition, Ruf et al. [18], assert that attitudes of involvement and trust are likely to influence the loyalty behavior of

members to their cooperative. Thus, attitudes of involvement and trust will enable the different actors to promote good governance within cooperatives. On the other hand, the result does not corroborate that of M. N'Guetta [20] who concludes that the experience of the cooperative, the number of cooperators, the level of vehicle equipment, the origin of the financing and the degree coverage are the main determinants of the effectiveness of Union cooperatives.

Table 9. Determinants of the quality of the services provided to members

Model 2	
Variables	Coefficient (P)
Constant	2,669 (0,002) **
Profile of leaders	1,980 (0,000) ***
Size	-4,143 (0,000) ***
Age	21,012 (0,999)
Gender	-1,621 (0,000) ***

** significance at 5% and *** significance at 1%
 Source: Field survey, Alibori (July-October, 2019)

From the results of our studies, it appears that small size determines the perception of quality of the services provided to members. This result corroborates with those of Brullebaut et al. [16], who assert that the factors influencing the ownership-control / efficiency relationship as an element of the performance of enterprise cooperatives are the size and heterogeneity of members. Valette et al.[15] in their study on the survival of French agricultural cooperatives conclude that size is positively associated with the survival of cooperatives. By referring to collective action theory, small groups are more likely to induce their members to participate in collective action Olson, [22]; Agrawal and Goyal, [23]. Thus, the relationship between the quality of the services provided and the small size can be explained by the fact that when the cooperative is small, all the members benefit from the services provided.

The results also show that the year of creation of the cooperative (age) does not determine the perception of governance (poor or average) in relation to good governance. This result contradicts the conclusion of Valette et al. [15] in their study on the survival of French agricultural cooperatives which states that size and age are positively associated with the survival of cooperatives. They showed that age can positively influence the performance of internal governance and the services provided to members.

The results also showed that the proportion of women (gender) determines the perception of internal governance and the services provided to members. This result corroborates with that of Brullebaut et al. [16], who conclude that the size and heterogeneity of members are the factors influencing the ownership-control / efficiency relationship of enterprise cooperatives. Barham and Chitemi [7], conclude that the gender composition of groups also affects the performance of group marketing, as a favorable factor. For Jimmy and Moumouni [24], the heterogeneity of users regarding gender, social situations, and private interests linked to the resource influences participation in collective action. CRS [25] recommends promoting the leadership roles of women in farmer groups in light of existing social and cultural norms.

4. CONCLUSION

This study aims to analyze governance performance of Producers' Organizations in the context of the OHADA Uniform Act of Cooperative Societies: Case of Village Cotton Producers Cooperatives in the Alibori Department in Benin. Internal governance and services provided to members are the two types of governance elements within Alibori's CVPC. Internal governance quality and the quality of services provided to members are generally poor within the CVPC of Alibori. The multinomial logistic model shows that gender determines internal governance (bad or average) in relation to good governance while the profile of leaders determines poor internal governance in relation to good governance. The low profile of leaders, the small size and the low proportion of women determine the quality of the services provided to members. On the other hand, the year of creation of the cooperative (seniority) does not determine the perception of governance (bad or average) compared to good governance. This study concludes that the governance performance of Village Cotton Producers Cooperatives can be measured by the profile of the leaders, the small size of the cooperatives and the low proportion of women within their CVPC.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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