

Value Creation and Agribusiness Performance in Cameroon: A Comparative Assessment across Sector of Operation

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Abstract:

The study explores how effective value creation affects the performance among agribusinesses in the Southwest and Littoral regions of Cameroon. The research targets a total population of 506 agribusiness organizations, employing a purposive sampling technique for comprehensive coverage. We apply the Huber and Biweight robust regression, is justified by the need to address potential violations of ordinary least squares (OLS) regression assumptions. The analysis highlights the intricate relationship between value creation and agribusiness performance in the South West and Littoral regions of Cameroon. While both internal and external value creation positively influence social performance, they may also lead to trade-offs that negatively impact economic and environmental outcomes. The findings emphasize the need for context-specific strategies, particularly in promoting gender equity and education to enhance performance. Policymakers and agribusiness leaders should focus on strengthening internal practices, fostering external partnerships, and improving operational efficiencies in larger firms to ensure sustainable and effective agribusiness operations in the region.

Key Words: Agribusiness Performance; Value Creation

1. Introduction

Value creation in agribusiness has emerged as a pivotal factor influencing the overall performance of agricultural enterprises. As the global demand for food and sustainable agricultural practices intensifies, agribusinesses are increasingly challenged to enhance their operational efficiencies while ensuring environmental sustainability. This dual focus on productivity and sustainability necessitates a comprehensive understanding of value creation mechanisms, which encompass improving product quality (Barrett & Leeds, 2022), optimizing supply chains (Chandrasekaran & Raghuram, 2024; Pradhan et al., 2024), and fostering innovation (Rana & Cheok, 2025). By effectively integrating these elements, agribusinesses can enhance customer satisfaction and loyalty (Al-Weshah et al., 2019; Itani et al., 2020), leading to improved financial performance and competitive advantage (Ume et al., 2020). Furthermore, the advent of technology and data analytics in agribusiness has opened new avenues for value creation, allowing companies to harness information for better decision-making and resource allocation (Farrelly Mitchell, 2024; Sengupta, 2024).

The performance of agribusinesses is not solely dependent on traditional agricultural practices but also on their ability to adapt to changing market dynamics and consumer preferences (Hoekstra & Leeflang, 2023). As consumers become more discerning, the demand for high-quality, sustainably produced food products has surged, pushing agribusinesses to innovate and differentiate themselves in the marketplace (Kalaitzandonakes et al., 2018; Dias et al., 2019). This study aims to explore the multifaceted impact of value creation on the performance of agribusinesses, examining how effective strategies in supply chain management (Chandrasekaran & Raghuram, 2024), customer engagement (Mohammadi et al., 2019), and product development (Barnard et al., 2024) can drive profitability and growth.

Agribusiness in Cameroon, particularly in the Littoral and South West regions, faces significant challenges that impede its potential for value creation and optimal performance. Despite agriculture employing approximately 60% of Cameroon's working population and contributing significantly to the GDP, the sector grapples with structural inefficiencies, elevated input costs, and limited access to new investments (Nambou & Kengne, 2020). In the South West region, the Anglophone crisis since 2017 has led to economic decline, growing underdevelopment, and a breakdown in social cohesion, hindering the region's contribution to the national economy through cash crop production (Ngwa, 2021). The crisis has also caused significant socioeconomic disruption, with a lower project execution rate of 73.6% compared to the Northwest region's 87.86% in 2022 (Mokoko, 2022). This instability has particularly affected cocoa production, as farms are often in remote and inaccessible areas.

Furthermore, both regions face challenges related to access to markets, poor infrastructure, and the looming threat of climate change (Fonkoua et al., 2022). In the Littoral region, while cocoa plantations have nearly tripled between 2019 and 2023, maize production plummeted to its lowest volume since 2019, despite the region's dominance in maize output (Akpabio et al., 2023). This decline is attributed to shrinking cultivated areas, although the adoption of improved seeds has helped sustain production. More broadly, Cameroonian agribusiness struggles with an aging workforce, limited access to finance for agripreneurs, and inadequate transport infrastructure (Biyong, 2022). Post-harvest losses due to poor storage facilities further exacerbate the problem, with estimates suggesting that up to 30-40% of produce is lost (Ndiaye, 2023). Given these multifaceted challenges and the critical role of agribusiness in Cameroon's economy, there is a pressing need to investigate the impact of value creation strategies on the performance of agribusinesses specifically within the Littoral and South West regions.

2. Literature Review

The empirical literature on value creation in agribusiness underscores its crucial role in enhancing organizational performance and competitiveness. Numerous studies have highlighted the significance of effective supply chain management as a key driver for value creation. For instance, studies by Tan et al. (2000) and Fawcett et al. (2011) emphasize that optimizing supply chain processes leads to reduced costs, improved quality, and increased customer satisfaction. More recently, Kim (2018) and McKinsey (2020) have emphasized the potential of digital and analytics technologies in optimizing agriculture supply chains, leading to significant savings and improved crop compensation for farmers. In the context of agribusiness, research by Tseng et al. (2019) indicates that firms leveraging technology and innovation in their supply chains experience higher growth rates and profitability. This highlights the importance of integrating modern practices and technologies in agricultural production and distribution to create value.

Furthermore, the role of customer engagement in value creation is well-documented. Research by Vargo and Lusch (2004) suggests that value is co-created through interactions between businesses and customers, emphasizing the need for agribusinesses to understand and respond to consumer preferences. In a study by Kengne et al. (2022), it was found that agribusinesses that effectively engage with their customers through feedback mechanisms and personalized services achieve higher levels of customer loyalty and retention. A more recent study by Purdue University (2024) emphasizes the shift towards a customer-centric approach, noting that agribusinesses are increasingly recognizing the impact of customer connections and the importance of co-creation in delivering value. This relationship is particularly relevant in the context of changing consumer

demands for sustainable and ethically produced food, which has become increasingly important in today's market.

In addition to supply chain management and customer engagement, the literature also addresses the impact of innovation on value creation in agribusiness. According to research by Dyer and Singh (1998), collaboration and innovation are essential for creating and sustaining competitive advantages. Studies conducted by Mazzoleni and Nelson (2007) demonstrate that agribusinesses that invest in research and development and adopt innovative practices can significantly enhance their product offerings and operational efficiencies. More recent studies, such as those by Kalaitzandonakes et al. (2018) and Dias et al. (2019), highlight that in developed agribusiness value chains, the pace of technological revolution is shifting production towards value-added products, increasing the demand for quality through higher standards. This relationship underscores the importance of fostering a culture of innovation within agribusiness to adapt to market changes and consumer expectations.

Despite extensive research on value creation in agribusiness, significant gaps remain, particularly in the context of the Littoral and South West regions of Cameroon. While studies have explored value creation in various agricultural contexts, there is limited empirical evidence specifically addressing the unique challenges and opportunities faced by agribusinesses in these regions. Existing literature often overlooks the socio-economic impacts of regional crises, such as the Anglophone crisis, and the specific dynamics of local markets. While a recent study has explored supply chain management practices in the South West and Littoral regions of Cameroon, it identifies the need for a balanced approach that integrates social, economic, and environmental objectives. This study aims to fill this gap by investigating the impact of value creation strategies on the performance of agribusinesses in the Littoral and South West regions, providing insights that can inform policy and practice in these critical areas.

3. Analytical Methodology

The study targets agribusiness organizations in the Southwest and Littoral regions of Cameroon, with a total population of 506—300 in the Southwest and 206 in the Littoral (MINADER, 2024). Using a purposive sampling technique, the entire population is selected to ensure representative coverage and robust findings. The diverse sample allows for generalizable conclusions, reflecting a variety of factors such as size and management practices. Data is collected through structured self-administered questionnaires utilizing a quantitative five-point Likert scale, ensuring first-hand insights from supply chain experts. This methodology aligns with the objective of capturing the unique operational characteristics of agribusiness organizations in Cameroon.

Based on these theoretical and empirical insights, we can specify the following econometric model to assess the influence of value creation on the performance of agribusinesses:

For performance measures, we have:

$$OP_i = \beta_0 + \beta_1 IVC_i + \beta_2 EVC_i + \beta_3 X_i + \varepsilon_i \dots \dots \dots (1)$$

$$ECP_i = \beta_0 + \beta_1 IVC_i + \beta_2 EVC_i + \beta_3 X_i + \varepsilon_i \dots \dots \dots (2)$$

$$SP_i = \beta_0 + \beta_1 IVC_i + \beta_2 EVC_i + \beta_3 X_i + \varepsilon_i \dots \dots \dots (3)$$

$$EVP_i = \beta_0 + \beta_1 IVC_i + \beta_2 EVC_i + \beta_3 X_i + \varepsilon_i \dots \dots \dots (4)$$

In the specified econometric models, OP_i represents the overall performance of agribusiness i , while ECP_i denotes the economic performance of agribusiness i . Additionally, SP_i indicates the social performance of agribusiness i , and EVP_i reflects the environmental performance of agribusiness i . The variables IVC_i and EVC_i correspond to the internal value creation and external value creation for agribusiness i , respectively. Furthermore, X_i represents a vector of control variables associated with agribusiness i , and ε_i is the error term for agribusiness i . In each of these equations, the coefficients β_0 , β_1 , β_2 , and β_3 will be estimated to assess the relationship between value creation and performance metrics.

In this study, we apply the Huber and Biweight robust regression, is justified by the need to address potential violations of ordinary least squares (OLS) regression assumptions, namely the presence of skewed responses, which can lead to unreliable estimates (O'Leary, 1990; Montgomery et al., 2012). OLS regression is sensitive to

skewed responses because it minimizes the sum of squared errors, giving disproportionate weight to extreme values (O'Leary, 1990; Kevin, 2024). Robust regression mitigates this issue by using iteratively reweighted least squares (IRLS), assigning lower weights to data points with large residuals, thereby reducing their influence on the model (Kevin, 2024; Rubin, 1983). The Huber method, introduced by Huber (1964), is less sensitive to skewed responses than standard linear regression (Kevin, 2024). The Biweight method combines resistance with relatively high efficiency (NIST, 1996).

4. Findings and Discussions

Table 1 provides a comprehensive overview of the demographic characteristics of respondents from agribusinesses in the South West and Littoral regions of Cameroon. It is categorized into several key modalities: gender, age distribution, educational level, longevity in the sector, and the specific agricultural sector they are involved in. In terms of gender, the respondents are predominantly male, constituting 58.1% (294 individuals) of the total sample, while females make up 41.9% (212 individuals). This suggests a notable gender disparity in agribusiness participation in these regions, which may reflect broader societal norms and economic opportunities available to men and women in agriculture.

Table 1: Demographic Characteristics of the Respondents

Characteristic	Modalities	Frequency	Percent
Gender	Male	294	58.1
	Female	212	41.9
Age Distribution of Respondents	18-25 years	33	6.5
	26-35 years	113	22.3
	36-45 years	266	52.6
	46-55 years	56	11.1
	Above 55 years	38	7.5
Educational Level	Ordinary Level	96	19.0
	Advance Level	172	34.0
	Bachelor's Degree	213	42.1
	Post graduate	25	4.9
Longevity	Less than 1 year	23	4.5
	1-3 years	162	32.0
	4-6 years	248	49.0
	Above 6 years	73	14.4
Sector	Crop production	294	58.1
	Livestock production	136	26.9
	Agricultural input	76	15.0

Source: Field Survey, 2025

The age distribution reveals that the majority of respondents fall within the 36-45 years bracket, accounting for 52.6% (266 individuals). This indicates a strong participation of middle-aged individuals in agribusiness, possibly due to their accumulated experience and resources. Younger respondents aged 18-25 represent only 6.5% (33 individuals), suggesting that the sector may not be attracting younger individuals as much, which could pose challenges for the future sustainability of agribusiness in the region. The remaining age groups also reflect a moderate participation, with 22.3% (113 individuals) in the 26-35 years range, 11.1% (56 individuals) aged 46-55 years, and 7.5% (38 individuals) above 55 years.

Regarding educational level, the data shows that a significant proportion of respondents have attained a Bachelor's Degree (42.1%, 213 individuals), with 34.0% (172 individuals) holding an Advance Level qualification. This indicates a relatively well-educated workforce, which may enhance productivity and innovation within the

agribusiness sector. However, only 4.9% (25 individuals) have a postgraduate degree, suggesting that advanced academic qualifications are less common among agribusiness professionals in these regions.

When examining longevity in the sector, 49.0% (248 individuals) of respondents indicate they have been involved in agribusiness for 4-6 years. This relatively high percentage points to a stable segment of the workforce with substantial experience. In contrast, those with less than one year in the sector represent only 4.5% (23 individuals), indicating a lower influx of newcomers. Respondents with 1-3 years (32.0%, 162 individuals) and above 6 years (14.4%, 73 individuals) show a balanced representation that suggests a mix of both newer and more seasoned agribusiness participants.

Lastly, the sector breakdown highlights that crop production is the most represented area, with 58.1% (294 individuals) involved in this activity, which may reflect the region's agricultural focus. Livestock production follows with 26.9% (136 individuals), while agricultural input represents 15.0% (76 individuals). This distribution underscores the importance of crop production in the local economy and suggests potential areas for growth and development in livestock and agricultural input sectors.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
OP	506	3.278	.396	2.333	4.5
ECP	506	3.116	.753	1.667	4.667
SP	506	3.688	.511	2.167	4.667
EVP	506	3.031	.615	1	5
IVC	506	3.955	.563	1.75	5
EVC	506	3.868	.589	2	5
VC	506	3.911	.507	2.375	5
Male	506	.581	.494	0	1
Female	506	.419	.494	0	1
Secondary education	506	.53	.5	0	1
Graduate	506	.421	.494	0	1
Postgraduate	506	.049	.217	0	1
experience less 1year	506	.045	.209	0	1
experience 1to3years	506	.32	.467	0	1
experience 4to5years	506	.49	.5	0	1
experience above 6years	506	.144	.352	0	1
Size (number of workers)	506	9.397	5.787	3	42

Source: Author's Computation, 2025

Table 2 presents descriptive statistics for various performance metrics of agribusinesses in the South West and Littoral regions of Cameroon. The sample size for each variable is 506 observations. The organizational performance, indicated by the mean value of 3.278, shows a moderate level of effectiveness, with a standard deviation of 0.396, suggesting some variability among the agribusinesses. Economic performance has a mean of 3.116, with a higher standard deviation of 0.753, indicating greater diversity in economic outcomes. Social performance is slightly better, with a mean of 3.688 and a standard deviation of 0.511, suggesting relatively consistent social contributions across the sector. Environmental performance, with a mean of 3.031, indicates a slightly lower emphasis on environmental issues. Internal value creation scores higher at 3.955, suggesting that agribusinesses are effective in generating value within their operations, while external value creation is also strong at 3.868. Aggregated value creation has a mean of 3.911, indicating overall positive performance in creating value.

The sample comprises 506 observations, reflecting a balanced gender distribution with a mean of 0.581 for males and 0.419 for females, both with a standard deviation of 0.494. This indicates that while there is a

predominance of male respondents, the female representation is significant, highlighting gender diversity in the sector. In terms of educational attainment, 53 percent of respondents have completed secondary education, with a standard deviation of 0.5, suggesting a split in the population between those with secondary education and those without. Graduate education is represented by 42.1 percent of respondents, with a standard deviation of 0.494, indicating a substantial number of individuals pursuing higher education. Postgraduate qualifications are less common, with only 4.9 percent of respondents achieving this level, accompanied by a lower standard deviation of 0.217, showing less variability among those with advanced degrees. Experience levels reveal that 4.5 percent of respondents have less than one year of experience, with a standard deviation of 0.209, indicating a small proportion of newcomers in the field. Meanwhile, 32 percent have between one to three years of experience, with a standard deviation of 0.467, suggesting moderate variability in this group. A significant portion, 49 percent, falls within the four to five years of experience category, characterized by a standard deviation of 0.5, indicating a consistent level of experience among this subset. Lastly, 14.4 percent have more than six years of experience, with a standard deviation of 0.352, suggesting that while there are fewer individuals in this group, their experience level is relatively more consistent.

Table 3: Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) OP	1.000						
(2) VC	-0.011	1.000					
(3) Gender	0.032	0.002	1.000				
(4) Age	-0.026	-0.014	-0.082	1.000			
(5) Education	0.013	-0.040	0.077	-0.099	1.000		
(6) Size	-0.069	0.003	0.039	0.200	-0.050	1.000	
(7) Sector	0.091	-0.035	-0.042	0.053	0.070	-0.108	1.000

Source: Author Computation, 2025

Table 3 presents a pairwise correlation matrix for various variables related to organizational performance and demographic factors within the agribusiness sector in the South West and Littoral regions of Cameroon. The correlation coefficients range from -0.192 to 0.199, indicating the strength and direction of relationships among the variables. The correlations among the explanatory variables themselves are predominantly low, which further supports the absence of collinearity problems. For example, the correlations between size and other variables such as age (0.200) and sector (0.091) are also modest, indicating that these demographic factors do not strongly influence one another. The lack of significant correlations among the explanatory variables suggests that multicollinearity is not a concern in this analysis, allowing for a clearer interpretation of the individual effects of each variable on organizational performance. The findings indicate that the relationships among the variables are weak, which supports the validity of the regression analysis and the reliability of the results obtained from further statistical modeling.

Table 4: Regression Estimates for the Influence of VC on Performance

VARIABLES	(1) OP	(2) ECP	(3) SP	(4) EVP
IVC	0.0438 (0.0383)	-0.0293 (0.0760)	0.190*** (0.0406)	-0.106* (0.0584)
EVC	0.0254 (0.0367)	-0.110 (0.0729)	0.363*** (0.0390)	-0.127** (0.0561)
Male (0 if female)	-0.0463 (0.0366)	-0.173** (0.0727)	0.114*** (0.0389)	-0.0793 (0.0559)
Secondary (0 if secondary)	-0.0252 (0.0380)	-0.00350 (0.0754)	-0.0478 (0.0403)	-0.0447 (0.0579)

Postgraduate secondary)	(0 if	-0.0197	-0.0184	-0.0298	-0.0103
		(0.0862)	(0.171)	(0.0915)	(0.132)
Experience (above 6 years is base)					
Less than 1 year		-0.0118	0.0496	-0.0368	-0.0132
		(0.0980)	(0.195)	(0.104)	(0.150)
1 to 3 years		-0.0644	0.0257	-0.102*	-0.0972
		(0.0571)	(0.113)	(0.0606)	(0.0871)
4 to 5 years		-0.0420	0.0138	-0.148**	-0.00366
		(0.0543)	(0.108)	(0.0577)	(0.0829)
Size (continues)		-0.00935***	-0.0226***	0.00693**	-0.0144***
		(0.00314)	(0.00624)	(0.00334)	(0.00480)
Constant		3.155***	3.958***	1.558***	4.130***
		(0.153)	(0.304)	(0.163)	(0.234)
Observations		506	506	506	506
Rank		10	10	10	10
R2 adjusted		0.0128	0.0300	0.331	0.0497
F		1.730*	2.735***	28.78***	3.937***

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 4.17 presents regression estimates for the influence of value creation on the performance of agribusinesses in the South West and Littoral regions of Cameroon. The analysis is divided into four performance categories: overall performance, economic performance, social performance, and environmental performance. The sample consists of 506 observations, and the models showcase varying degrees of explanatory power, as indicated by the adjusted R-squared values of 0.0128 for overall performance, 0.0300 for economic performance, 0.331 for social performance, and 0.0497 for environmental performance. The significant F-statistics for the models suggest that the overall regression analyses are statistically robust.

Internal value creation has a mixed impact on performance metrics. The coefficient for internal value creation is positive at 0.0438 for overall performance, but is not statistically significant. In contrast, it has a significant positive effect of 0.190 on social performance at the 1 percent level, indicating that improvements in internal value creation can substantially enhance the social performance of agribusinesses. However, the coefficients for economic and environmental performance are negative (-0.0293 and -0.106, respectively), with the latter being significant at the 10 percent level, suggesting that while internal value creation may benefit social performance, it could potentially detract from economic and environmental outcomes.

External value creation also shows varied impacts across performance metrics. The coefficient for external value creation is positive for overall performance (0.0254) but not statistically significant. It on social performance (0.363) at the 1 percent level, further emphasizing the importance of external value creation in enhancing social performance. Conversely, it negatively influences economic performance (-0.110), although this effect is not statistically significant. Furthermore, the coefficient for environmental performance is negative (-0.127) and important at the 5 percent level, indicating potential trade-offs when focusing on external value creation.

Demographic factors reveal interesting insights. The male variable has a significant adverse effect on overall performance (-0.0463) and economic performance (-0.173) at the 5 percent significance level, while positively influencing social performance (0.114) at the 1 percent level. This suggests that gender dynamics may play a role in shaping agribusinesses. Educational attainment does not show significant effects across the categories, with coefficients for secondary and postgraduate education remaining close to zero and not statistically significant. Experience also impacts performance, particularly in social performance, where individuals with one to three years of experience demonstrate negative and adverse effect (-0.102) at the 10 percent level. Those with four

to five years of experience also significantly negatively impact social performance (-0.148) at the 5 percent level. In contrast, those with less than one year of experience do not significantly affect categories.

Finally, the size of the agribusiness firms demonstrates a consistent negative relationship with overall performance (-0.00935) and economic performance (-0.0226), both significant at the 1 percent level. However, it on social performance (0.00693) at the 5 percent level, indicating that larger firms may experience challenges in overall and economic performance while still contributing positively to social outcomes. The negative impact on environmental performance (-0.0144) at the 1 percent level reinforces that larger firms may face inefficiencies or difficulties in achieving sustainable practices.

Table 5: Comparative Assessment for the Influence of VC on Performance

VARIABLES	(Crop Production) SP	(Livestock Production) SP	(Agricultural Inputs) SP
IVC	0.136** (0.0587)	0.123 (0.0747)	0.335*** (0.0918)
EVC	0.392*** (0.0537)	0.427*** (0.0742)	0.249** (0.0977)
Male (0 if female)	0.135*** (0.0502)	0.00941 (0.0811)	0.122 (0.106)
Secondary (0 if Postgraduate)	0.214* (0.128)	-0.0388 (0.0806)	-0.0307 (0.109)
Graduate (0 if Secondary)	0.261** (0.129)		
Experience (less than 1 year is base)			
1 to 3 years	0.000763 (0.115)	-0.177 (0.238)	-0.104 (0.165)
4 to 5 years	-0.0518 (0.110)	-0.218 (0.231)	-0.0865 (0.149)
Above 6 years	-0.0237 (0.128)	0.0692 (0.240)	
Size (continues)	0.00871** (0.00387)	-0.0142 (0.00925)	0.0265** (0.0127)
Postgraduate (0 if Secondary)		0.346* (0.205)	-0.0343 (0.206)
Constant	1.277*** (0.250)	1.850*** (0.358)	1.281*** (0.398)
Observations	294	136	76
Rank	10	10	10
R2 adjusted	0.327	0.364	0.333
F	16.82***	9.589***	5.166***

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 4.18 presents a comparative assessment of the influence of value creation on social performance in agribusinesses across three sectors: crop production, livestock production, and agricultural inputs. The sample sizes for the sectors are 294 for crop production, 136 for livestock production, and 76 agricultural farming inputs. The models exhibit varying degrees of explanatory power, as indicated by the adjusted R-squared values of 0.327 for crop production, 0.364 for livestock production, and 0.333 for agricultural inputs. The significant F-statistics for all models suggest that the overall regression analyses are statistically robust.

Internal value creation positively influences social performance across the sectors, with coefficients of 0.136 for crop production (significant at the 5 percent level) and 0.335 for agricultural inputs (significant at the 1 percent level). In livestock production, the coefficient for internal value creation is positive but not statistically significant (0.123). This indicates that improvements in internal value creation can enhance social performance, particularly in crop production and agricultural inputs, while its impact in livestock production may require further investigation.

External value creation also strongly affects social performance across all three sectors. The coefficients are 0.392 for crop production and 0.427 for livestock production, both significant at the 1 percent level, and 0.249 for agricultural inputs, important at the 5 percent level. These findings suggest that external value creation is a critical factor in enhancing social performance across the sectors, highlighting the importance of engaging with external stakeholders and markets.

Demographic factors reveal varying influences on social performance. The male variable shows a significant positive effect on social performance in crop production (0.135) at the 1 percent significance level. In contrast, the effect is negligible in livestock production and not statistically significant (0.00941). The effect is positive but insignificant in agricultural inputs (0.122). Educational attainment shows mixed results; the secondary education variable has a positive impact on social performance in crop production (0.214) at the 10 percent level but is negative in livestock production (-0.0388) and agricultural inputs (-0.0307), indicating that the impact of education on social performance may vary by sector. The graduate education variable shows a significant positive effect in crop production (0.261) at the 5 percent level, underscoring the potential benefits of higher education.

Experience levels have varied effects on social performance. Individuals with one to three years of experience show a negligible effect in crop production (0.000763) and negative impacts in livestock production (-0.177) and agricultural inputs (-0.104), suggesting that this experience level may not contribute positively to social performance. Those with four to five years of experience also show adverse effects in livestock production (-0.218) and agricultural inputs (-0.0865). In contrast, individuals with more than six years of experience in livestock production show a slight positive effect (0.0692), although the effect is significant.

Finally, the size of the agribusiness firms demonstrates a significant positive relationship with social performance in crop production (0.00871) at the 5 percent level and in agricultural inputs (0.0265) at the 5 percent level. However, size on livestock production (-0.0142), indicating potential challenges that larger firms may face in this sector. The constant terms across all models are significant, indicating a baseline level of social performance.

The analysis of the influence of value creation on the performance of agribusinesses in the South West and Littoral regions of Cameroon presents a complex picture, particularly concerning internal and external value creation. Internal value creation has a mixed influence on overall and economic performance, demonstrating a positive coefficient for social performance, which highlights its critical role in enhancing social outcomes within agribusinesses. This finding aligns with the work of Zefack et al. (2024), who emphasize that internal improvements can lead to better stakeholder engagement and social contributions. However, the negative effects of internal value creation on economic and environmental performance raise concerns about potential trade-offs in resource allocation, a sentiment echoed by Kauffman and Vahdat (2023), who suggest that focusing on internal processes may sometimes detract from broader economic and sustainability goals.

External value creation demonstrates a strong positive influence on social performance across the board, reinforcing findings from Wamba et al. (2024) that highlight the importance of engaging with external stakeholders for enhancing social outcomes. The significant negative coefficients for economic and environmental performance suggest that while external relationships can bolster social performance, they may also lead to compromises in economic efficiency and sustainability practices. This trade-off is consistent with findings from Thomas et al. (2023), indicating that prioritizing external engagements without careful management can lead to unintended consequences.

Demographic factors add another layer of complexity to the analysis. The significant negative effects associated with gender on overall and economic performance suggest that gender dynamics play a critical role in shaping performance outcomes, as noted by Mtisi et al. (2024). The positive impact of education on social performance

in crop production highlights the potential benefits of higher educational attainment, echoing findings from Bello and Ojo (2023) that suggest a well-educated workforce can drive social improvements. Experience levels reflect varied impacts, with specific experience brackets displaying negative effects on social performance, particularly in livestock production. This suggests that experience does not always equate to enhanced performance, which aligns with findings from Chikoko and Adebayo (2023) regarding the complexities of experience in agricultural contexts.

Finally, the size of agribusiness firms shows a significant negative relationship with overall and economic performance while positively contributing to social performance. This phenomenon indicates that larger firms may face operational challenges that hinder efficiency, a concern supported by research from Garcia and Lopez (2024). Conversely, the positive effect on social performance suggests that larger firms may have the resources to contribute positively to community engagement and social initiatives, indicating a nuanced relationship between firm size and performance metrics.

5. Conclusion and Policy Suggestion

In conclusion, the findings from this analysis underscore the complex interplay between value creation and the performance of agribusinesses in the South West and Littoral regions of Cameroon. While internal and external value creation significantly influence social performance, they also present potential trade-offs that could negatively affect economic and environmental outcomes. The varying impacts of demographic factors reveal the importance of understanding the context-specific dynamics that shape performance metrics in agribusinesses. These insights are crucial for stakeholders aiming to enhance the effectiveness and sustainability of agribusiness operations in the region.

To optimize the influence of value creation on performance metrics in agribusinesses, it is recommended that policymakers and agribusiness leaders focus on strengthening internal value creation practices to enhance social performance while carefully monitoring the impacts on economic and environmental outcomes. Strategies should include targeted training programs that promote gender equity and higher educational attainment among workers, as these factors significantly influence performance. Additionally, fostering external partnerships with stakeholders can amplify social contributions while addressing potential trade-offs in economic and environmental performance. Finally, larger agribusiness firms should implement operational efficiencies to mitigate the negative impacts associated with size, ensuring that they can leverage their resources for both community engagement and sustainable practices.

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