

Main Characteristics of Small and Medium Sized Agrifood Enterprises in Selected Regions of Cameroon

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Abstract: In a context characterised by low competitiveness of agrifood enterprises in Cameroon, a socio-economic study on Small and Medium-Sized Agrifood Enterprises (SMAE) in the Cameroon cities of Yaoundé in the Centre region, Douala in the Littoral region, and Bafoussam in the West region was carried out between March and September 2021. This was with the aim of analysing the main characteristics of these enterprises. Data were collected from 300 managers of SMAE selected through a purposive sampling method. Descriptive statistical were used to analyse the data. The results revealed that SMEA in Cameroon are mostly Very Small Enterprises (VSE) (89.7%) with less than 10 years of existence, and self-funded without external sources of finance. Their production systems are essentially artisanal (69%) and their personnel are not qualified (72%). In addition, they are mostly organised in the form of Common Initiative Groups (CIGs), cooperatives or enterprises without legal status. These SMAE are mainly run by married (66,7%), female (56%) and higher level graduate (60%) managers with ages ranging from 41 to 50 years. The decision-making process in these enterprises is centred on the managers with a structure based on group work and very few employees with a job description. However, meetings are held frequently in these enterprises, and employees are most often consulted and informed of any developments. Furthermore, the main marketing strategy used by these enterprises is word of mouth, while informal observation is the main business intelligence strategy. Very few SMAE have Research and Development (R&D) activities. Nevertheless, they rely mainly on training to stay technologically alert. In addition, they generally collaborate with customers and suppliers. These characteristics mainly predispose Cameroonian SMEA to be unprofitable and inefficient. Therefore, the paper recommend to sensitize SMAE to the advantages of being formal, to put in place fiscal measures that match up with SMAE's activities, to develop financial systems adapted to SMAE's reality, to empower women and reduce gender inequalities in order to improve their managerial performances, to raise young entrepreneurs awareness of the importance of perseverance and the benefit of marriage on business, to help SMAE managers and their personnel to continuously build their capacity, to support SMAE financially and technically, to help SMAE in developing well defined business strategies, to sensitize SMAE managers to the importance of decentralisation in their activities and to promote collaboration between SMAE and strategic partners in their environment.

Keywords: Small and Medium-Sized Agrifood Enterprises, Characteristic, Competitiveness, Manager, Strategy

1. Introduction

Like many other African countries, Cameroon, known as

Africa in miniature, has enormous agrifood potential [1, 2]. The country is located in central Africa and covers an area of 475,442 km² with an annual growth rate of about 3%. Its

population, which was estimated at 7 million in 1976, has grown to about 24 million in 2016 [3]. Agriculture is a key sector of its economy, employing approximately 62% of the active population, contributing about 20% of Gross Domestic Product (GDP) and accounting for more than 40% of the country's total exports [4]. Due to its geographical position, Cameroon is subdivided into 5 main agro-ecological zones characterised by a great diversity of soils, climates and many agricultural landscape [5, 4, 6]. In the Central African sub-region, Cameroon is by far the largest producer and exporter of agricultural products. Almost all other countries in the Economic and Monetary Community of Central Africa (CEMAC) export virtually no agricultural products to Cameroon, but import significant quantities [7, 5]. Obviously, Africans and therefore Cameroonians produce what they do not consume and consume what they do not produce [8].

Since its independence, Cameroonian agriculture has undergone several institutional changes, each time marked by policy orientations aimed at organising its agricultural production. The implementation of these policies has been based on strategies and programmes designed to encourage rural entrepreneurs to improve their competitiveness. Many agricultural and agrifood businesses created by public or private initiatives did not survive [9-11]. In its current development vision, Cameroon aspires to be an emerging country by 2035. To achieve this vision, the country must have an economy that is capable of creating more wealth and competing globally [9].

Despite its remarkable potential, exceptional natural conditions, clear political will, a diversity of agricultural crops and sub-regional outlets, Cameroon's current performance does not allow it to have a competitive economy capable of creating enough added value to achieve its goal of becoming an emergent country. Cameroon has a production deficit and continues to import more food products to satisfy the growing needs of a rapidly increasing population [12-14, 5]. On the other hand, Cameroon processes just a little amount of its agricultural products, reflecting a problem of productivity and competitiveness of agricultural and agrifood enterprises [15, 16]. Thus, it is one of the countries whose level of industrialization is relatively low and whose industrial growth rate is insufficient to improve their economic situation [17].

Indeed, since independence until 2007, the value of Cameroon's food imports has increased from about 8.2 to 287 billion FCFA [5]. In 2003 and 2004, the overall volume of agricultural products exported stagnated and their share in the value of exports fell; the rise in the household consumption price index and the strong resumption of imports of some food products since 2003 express an insufficient satisfaction of domestic demand by local supply [18]. The import bill for food products, particularly for mass consumption goods (rice, fish and wheat), tripled between 2007 and 2017, representing on average more than a third of the trade deficit and 4% of GDP since 2013 [19]. The sustainable solution to reduce this food bill and, by extension,

the trade deficit, would be to increase the national supply of agrifood products in the medium and long term [20, 18, 17, 13-15]. A simple calculation shows that a 50% reduction in imports of consumer agrifood products could have reduced the trade balance deficit by 20% in 2017 [19]. Consequently, this trade balance deficit inevitably poses a challenge to improving the competitiveness of Cameroonian agrifood enterprises [16, 20, 12, 9], more than 90% of which are small and medium-sized enterprises (SMEs), and of which 70 to 98% are Very Small Enterprises (VSE) [21-23].

A key condition for improving the performance of agrifood SMEs is to know what makes them special. In this perspective, the objective of this paper is to characterise SMAE in Cameroon.

2. Methodology

2.1. Presentation of the Study Area

The study was carried out in the Centre, Littoral and West regions of Cameroon, precisely in the cities of Yaoundé, Douala and Bafoussam respectively (Figure 1). The choice of these three cities is justified by the fact that they account for more than 60% of enterprises in Cameroon [24-26, 21].

2.2. Study Population

The study population is the total number of SMAE located in the cities of Yaoundé, Douala, and Bafoussam. The unit of analysis is the formal and informal SMAE involved in the artisanal, manufacturing or industrial processing of agricultural products for human or animal consumption.

2.2.1. Sampling Technique and Sample Size

Without a database containing complete and updated information on SMEs in Cameroon, it was difficult to identify SMEs involved in agrifood processing. Thus, the identification of SMAE was done by a purposive sampling technique. Specifically, the researcher went through supermarkets, internet and various public and private organisations to obtain lists of SMEs from all sectors. After sorting and merging the lists, a sample of 700 identifiable SMAEs with headquarters in Yaoundé, Douala, and Bafoussam was obtained. Furthermore, volunteer and available managers from this data base were surveyed from March to September 2021.

The advantage of this method was that respondents were not selected against their will. It was also cheaper, easier to conduct and respondents were more available. In addition, it increased the response rate because respondents in this sector are very reluctant to give information. They think that somehow information about their enterprise can be disclosed to competitors and tax authorities. Finally, a total of 300 managers of SMAE responded to the questionnaire. Table 1 shows the distribution of the surveyed enterprises by city and subdivision.

2.2.2. Data Analysis Technique

The data obtained from the field were manually tabulated, coded and analysed using Microsoft Excel 2013 and Statistical

Package for the Social Sciences (SPSS) version 26. Moreover, descriptive statistics such as means, frequencies and percentages were generated and presented in the form of tables and graphs on the basis of 7 main categories of variable

(the general SMAE profile, the manager profile, the technological level, the technological and scientific intelligence, the commercial strategies and business intelligence, the organisational structure and the partnerships).

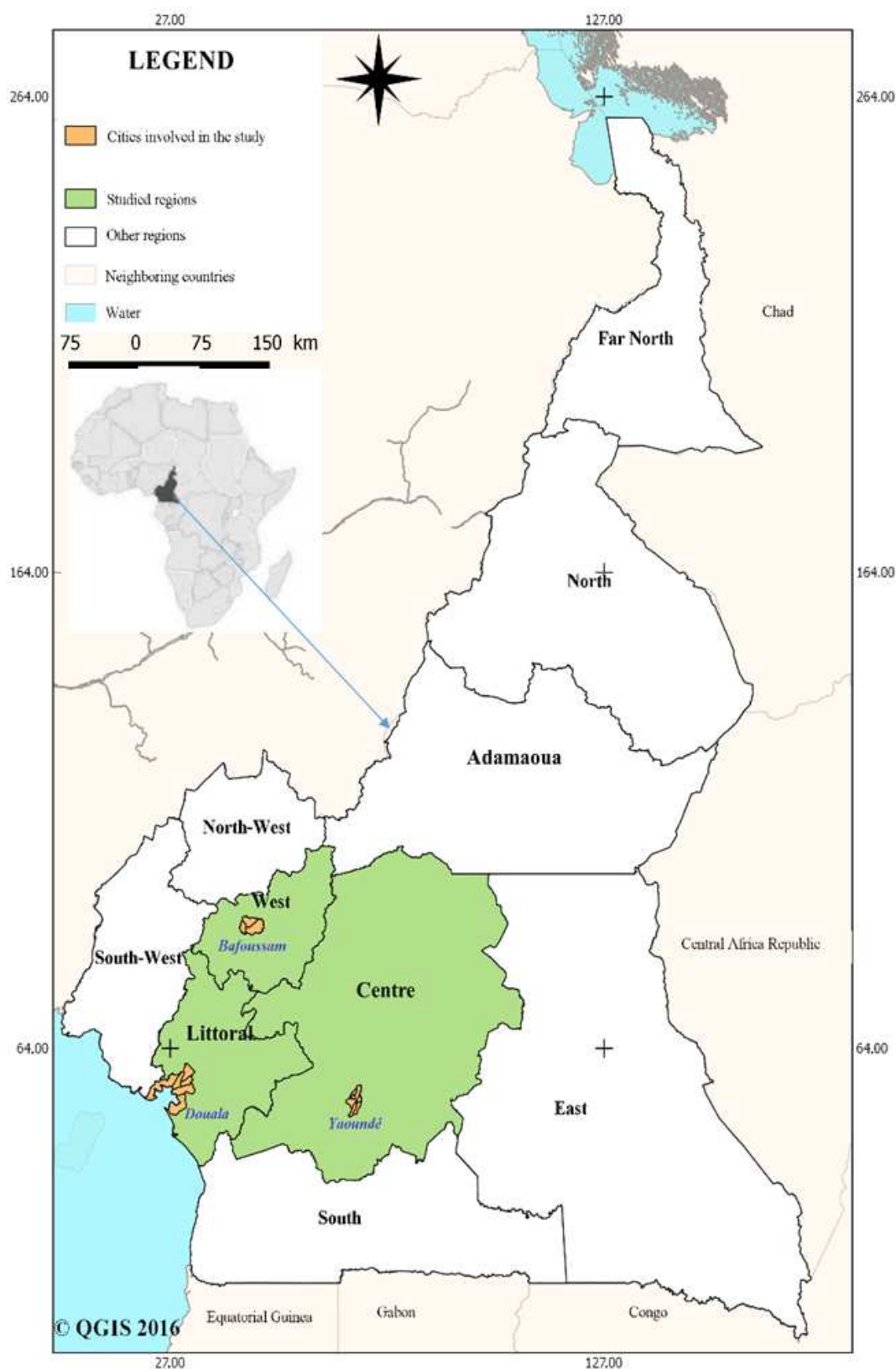


Figure 1. Localisation of Centre, Littoral and West regions of Cameroon.

Table 1. Distribution of the surveyed enterprises by city and subdivision.

City	Subdivision	Frequency	Total
Yaoundé	Yaoundé 1	26	107
	Yaoundé 2	3	
	Yaoundé 3	12	
	Yaoundé 4	30	
	Yaoundé 5	26	
	Yaoundé 6	6	
	Yaoundé 7	4	
Douala	Douala 1	44	158
	Douala 2	5	
	Douala 3	34	
	Douala 4	13	
	Douala 5	62	
Bafoussam	Bafoussam 1	23	35
	Bafoussam 2	7	
	Bafoussam 3	5	
Total	15	300	300

3. Results and Discussion

In this paper, results is presented according to the general SMAE profile, the manager profile, the technological level, the technological and scientific intelligence, the commercial strategies and business intelligence, the organisational structure and the partnerships.

3.1. General SMAE Profile

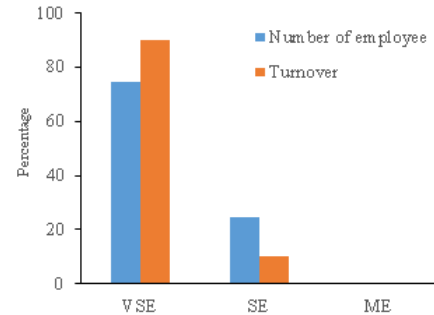
The general profile of SMAE was divided into five sub characteristics: typology, legal and formal status, age of enterprise, its sources of finance and the personnel qualification.

3.1.1. Typology of SMAE

The typology of SMEs is generally determined by the number of employees and the turnover. In Cameroon, a very small enterprise (VSE) is an enterprise that employs no more than 5 people with an annual turnover excluding taxes less than or equal to 15 million FCFA. A Small Enterprise (SE) is one that employs 6 to 20 people with an annual turnover excluding taxes of more than 15 million FCFA but not more than 250 million FCFA. A Medium Enterprise (ME) is an enterprise that employs 21 to 100 people with an annual turnover excluding taxes of more than 250 million FCFA and which does not exceed 3 billion FCFA [27]. The results of this study show that the SMEs surveyed have an average turnover of 7,556,090 FCFA with a maximum of 150,000,000 FCFA and a minimum of 200,000 FCFA. Regarding the number of employees, they have an average of 5 employees with a maximum of 22 employees and a minimum of one employee. Figure 2 presents the typology of SMAE according to turnover and number of employees.

Figure 2 shows that the two criteria used to classify SMAE present differences and similarities in the results. According to the number of employees, the results shows three categories of SMAE: VSE (74.7%), SE (24.7%) and ME (0.6%). On the other hand, the criterion of turnover distinguishes two categories of companies: VSE (89.7%) and SE (10.3%). In

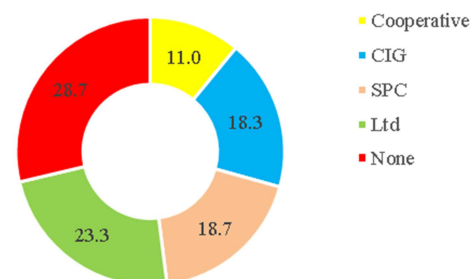
spite of their disparities, these two criteria show that more than 7 SMAE out of 10 belong to the category of VSE. This result is consistent with that of [28, 29] obtained from their study on the identification of constraints to the performance of individual entrepreneurs in Cameroon.

**Figure 2.** Typology of SMAE according to turnover and number of employees.

The categorisation that will be used in the following sections is that of the turnover, as it is the predominant criterion in Cameroun [27].

3.1.2. Legal and Formal Status

According to [30], enterprise is an economic unit, legally autonomous, which combine many factors in order to produce goods and services. It is a natural or legal person carrying out an economic activity on its own account. Moreover the legal status of an enterprise refers to the juridical forms or entities that an enterprise can bear [30]. The Cameroonian legislation provides many juridical forms of enterprises, where the most common find are company and Peasant Organisation (PO). Companies can be divided in three main groups namely: Sole Proprietorship Companies (SPC), Limited liability companies (Ltd) and Public Limited Companies (PLC) which are entities formed by at least one person and duly registered in trade and Personal Property Credit Registry (RCCM) [21]. On the other hand, PO are mainly divided in forms of Common Initiative Groups (CIG) and cooperatives, which are legal status for rural enterprises [10].

**Figure 3.** Distribution of SMAE according to their legal status.

The distribution of SMAE surveyed according to their legal status (Figure 3) shows that the most common legal statuses in the sample are Ltd (23.3%), followed by SPC (18.7%), cooperatives (11%) and CIG (18.3%). SMAE with no legal status represent 28.7%. That is to say that companies (Ltd and

SPC) represent (42%) and POs (29.3%). These results are in contrast to those found by [21], where it reported that 97% of enterprises in Cameroon are SPC.

On the other hand, the distribution of legal status according to the typology of enterprises (table 2) shows that a majority of SE belong to the Ltd group (20%). Moreover, 90% of agrifood enterprises with the status of PO are VSE whereas 84.7% fall in the group of companies.

Table 2. Legal forms and typology of SMAE (in %).

Characteristics		Typology of SMAE		Total
		VSE	SE	
Legal status	Ltd	80.0	20.0	100
	SPC	89.3	10.7	100
	Cooperative	90.9	9.1	100
	CIG	89.1	10.9	100
	None	97.7	2.3	100
Overall		89.7	10.3	100

This distribution highlights the predominance of informal enterprises among the SMAE precisely POs. Indeed, informal SME are those that do not have a taxpayer number and are not registered in the RCCM [30]. In practice, businesses that use the legal status of PO seek to avoid taxes, since PO were initially designed for entrepreneurs living in rural areas, that is what [10] describes as a tax umbrella. This hypothesis is confirmed by table 3, which presents the proportions of formal and informal SMEs by legal status and type of SME.

Table 3. Formal status according to legal status and type of SAME.

Characteristics		Informal	Formal	Total
Legal status	Ltd	0.0	100	100
	Sole proprietorship	0.0	100	100
	Cooperative	69.7	30.3	100
	CIG	85.5	14.5	100
	None	100.0	0.0	100
Type of SMAE	VSE	55.4	44.6	100
	SE	22.6	77.4	100
Overall		52.0	48.0	100

Results in table 3 shows that informal enterprises represent 52% of the sample and 48% are formal, which is almost equal. Moreover, this proportion is higher in the PO group and stands at 69.7% for cooperatives and 85.5% for CIGs. Moreover, the informal SMAE are mainly VSEs while company are all formal. These results contradict those of the International Labour Organisation (ILO) which estimates the number of formal enterprises in the world at 9% [31].

3.1.3. Age of SMAE

Age is one indicators used to characterise enterprises. Thus, the results show that the average age of SMAE is 7.98 years with a maximum of 40 years and a minimum of 1 year. Table 4 shows the distribution of the SMAE surveyed according to age.

Table 4 shows that 74% of SMAE are at most 10 years old and 6% are more than 20 years old. These results are similar to those observed by [17] where they indicate that Cameroonian enterprises are very young, with more than 7 out of 10 enterprises being less than 15 years old. Furthermore, the

evolution of SMAE over time is not constant, as shown in Figure 4.

Table 4. Distribution of SMAE surveyed by age (in %).

Characteristics		Beginning age			Total
		[1-10]	[11-20]	[21-40]	
Legal status	Ltd	77.1	14.3	8.6	100
	SPC	83.9	14.3	1.8	100
	Cooperative	72.7	27.3	0.0	100
	CIG	45.5	40.0	14.5	100
	None	83.7	12.8	3.5	100
Formal status	Yes	67.3	25.6	7.1	100
	No	81.3	13.9	4.9	100
Type of SMAE	VSE	75.8	18.6	5.6	100
	SE	58.1	32.3	9.7	100
Overall		74.0	20.0	6.0	100

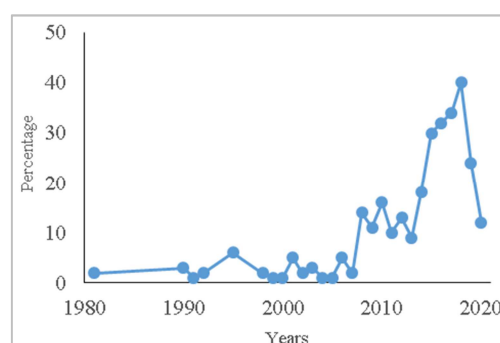


Figure 4. Distribution of SMAE per date of creation.

Figure 4 shows that the percentage of enterprises created increases over the years, although between 2018 and 2020 there has been a significant decrease. Given that these SMAE are young, this observation highlight that the life expectancy of most enterprises is very short, thus characterising VSE with a very high rate of renewal. Consequently, there are very few Cameroonian SMAE with more than 10 years of existence.

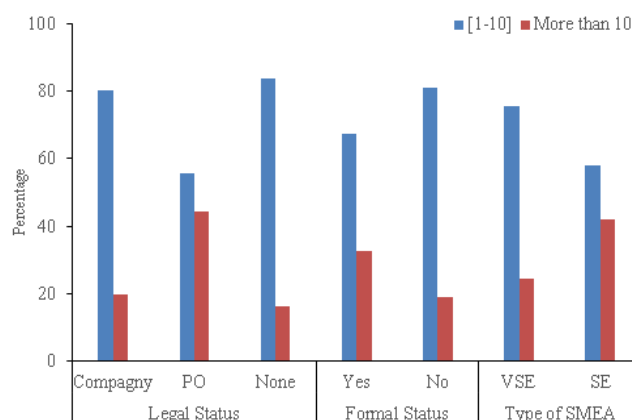


Figure 5. Legal status, formal status and type of SMAE according to age groups.

On the other hand, a breakdown of the legal status, formal status and type of SMAE according to age categories (Figure 5) shows that in the PO group, 44.3% of agrifood enterprises have more than 10 years of existence against 19.8% in the company category. In addition, 16.3% of SME in the group of

those without a legal status have more than 10 years of existence. Furthermore, 32.7% of formal SMAE have been existing for more than 10 years against 18.8% of informal SMAE. These results suggest that PO in the agrifood sector have an organisational dynamic that allows them to have a longer life span compared to companies. In addition, the results show that being formal and belonging to the SE category would also increase the potential of SMAE to have a relative long life span. Registration allows the owner to make his business stable and out of hiding, an entrepreneur earns more by developing its business or formalising [28, 29].

3.1.4. Sources of Finance

The sources of finance for an enterprise represent all the internal and external resources used to carry out its activities. The SMAE in the study use an average of 1.57 sources to finance their activities. The maximum number of sources used is four and the minimum is one. These include personal funds,

friends or family, financial institutions, suppliers, grants and rotating savings and credit association/tontine (ROSCA) as shown in Table 5.

Results in table 5 show that the most commonly used sources of finance by SMAE are personal funds (99.3%), family and friends (20.7%) and financial institutions (20%). On the other hand, ROSCA/tontine (9.3%), subsidies (6.3%) and supplier credits (1.7%) are the least used sources of financing. This result is similar to the findings of [25] where it notes the low level of bank financing in informal production units in Cameroon by showing that less than 5% of their capital is financed by banks while personal funds represents their main mode of financing (92.4%). Companies more use financial institutions, friends and family, supplier credits and tontine, while PO benefit more from grants. On the other hand, formal enterprises and SE mostly use other sources of financing besides personal funds.

Table 5. Sources of finance according to legal status, formal status and type of SMAE (in %).

Characteristics	Supplier	Subsidy	Tontine/ROSCA	Bank/MFI	Friends/Family	Personal funds
Legal status						
Ltd	2.9	8.6	12.9	27.1	34.3	100.0
SPC	3.6	7.1	7.1	19.6	21.4	96.4
Cooperative	0.0	12.1	15.2	15.2	24.2	100.0
CIG	0.0	9.1	3.6	21.8	21.8	100.0
None	1.2	0.0	9.3	15.1	7.0	100.0
Formal status						
Yes	2.8	6.9	10.4	22.2	30.6	98.6
No	0.6	5.8	8.3	17.9	11.5	100.0
Type of SMAE						
VSE	0.4	5.9	8.9	19.3	20.1	99.3
SE	12.9	9.7	12.9	25.8	25.8	100.0
Overall	1.7	6.3	9.3	20.0	20.7	99.3

These show that external sources of finance provide more financial resources to SMAE with some legal recognition. These results are consistent with those of [28, 29, 32] which reported that formalisation has several advantages, including access to loans from different financial institutions, either public or private, access to public markets or infrastructure set up by the government to support entrepreneurs.

3.1.5. Formal Educational Level and Qualification of Employee

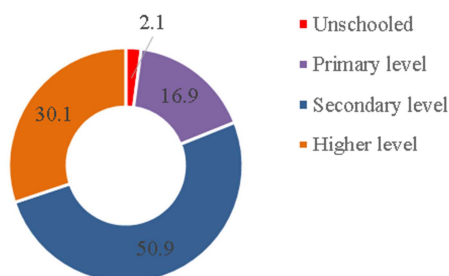


Figure 6. Distribution of employees according to their formal level of education.

The quality of human resource is an important characteristic of enterprises. The presence of personnel with higher level of

formal education is an important factor for SME [33, 34]. In this study, SMAE have an average of 5 employees with a maximum of 22 employees and a minimum of one employee. Employees with secondary education followed by those with high education dominate the internal environment of studied SMAE (Figure 6).

On the other hand, results shows that Ltd companies are agrifood enterprises with most employees of who have undergone higher education (42%), followed by those with no legal status (37%). Moreover, formal SMAE and VSE are also distinguished by a high number of human resources with higher education level, with 36% and 32% of all employee respectively. Furthermore, CIG, informal SMAE and VSE are the categories that employ most people who have never been to school, and represent respectively 5%, 4% and 2% of the workforce in each category concerned. In addition, 37% of employee in CIG, 22% in informal SMAE and 45% in SE have a primary school level. Despite these different levels of education, most manager feel that their human resources are not qualified. In fact, 72% of the managers believe that the human resources in their enterprises are not qualified for the work that is expected from them, as they have no other choice but to work with them, while 28% of the them think that their personnel is qualified. This perception varies from city to city.

Indeed, 46.2% SMAE managers in Douala, 8.5% in Bafoussam and 7.5% in Yaoundé find their personnel qualified. These results are consistent with the work of [16]. The higher proportion of qualified employees in Douala may be due to the fact that it is the most economically dynamic city in Cameroon and therefore drags many opportunities to qualified persons.

3.2. Profile of the Manager

The performance of companies can often be explained by some demographic, psychological and behavioural characteristics of the manager, as well as by his or her leadership skills and technical know-how. These characteristics and the profile of the entrepreneurs (experience, level of education, age, gender, motivation...) are used to explain the success or failure of companies.

3.2.1. Gender Distribution of Managers

The study on gender in entrepreneurship shows a dominance of men. Indeed, [17] shows that more than 7 out of 10 business managers are men. However, the results of this study show different observations. The proportion of female managers in the agrifood SME sector is high in Cameroon, representing 56% of the sample of managers considered, compared to 44% of male managers. These results corroborate those of [28, 29] but are contrary to the finding of [17] and suggest that women are more likely to be involved in agribusiness activities than in other sectors. This could be due to the fact that agrifood is close to the culinary arts that women practice on a daily basis.

3.2.2. Manager's Age and Years of Experience

The distribution of managers according to age and years of experience are pieces of information that could be used to analyse some entrepreneurial trends in SMAE. To this end, the results of this study show that the average age of managers in SMAE is 43.7 years with a maximum of 70 years and a minimum of 21 years. Figure 7 shows the distribution of SMAE managers surveyed according to age groups.

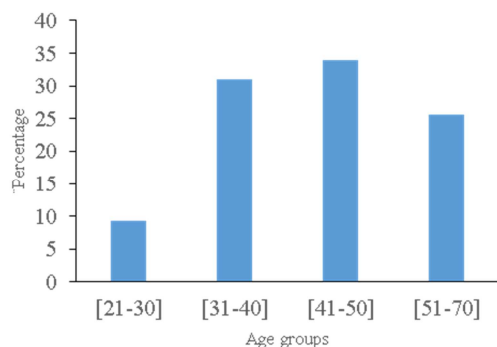


Figure 7. Distribution of managers by age groups.

It can be observed from figure 7 that most managers have age ranging from 41 to 50 years old (34%). Managers over 40 years of age represent almost three fifths (59.7%) of the sample, reflecting an agrifood sector dominated by relatively

old managers. These results are in contrast to those found by [21, 17] where they reported that 60% of business promoters are in the 20-40 age group. In addition, results also show that the manager of CIG (87.3%), cooperatives (69.7%) and SE (80.6%) belong mostly to the older age group [41-70]. While, 64% of the managers of SMAE with no legal status belong to the younger age group.

As regards to manager's experience, results shows that their average years of experience is 9.80 with a maximum of 35 years and a minimum of one year. Furthermore, 65.3% of managers have at most ten years of experience compared to 34.7% with more than ten years of experience. The number of years of experience varies according to the category of company. Thus it can be observed that, with regard to legal status, the CIG (63.6%) and the cooperatives (36.4%) are managed by persons with more than ten years of experience. Informal enterprises (39.7%) and the SE (58.1%) are also categories of enterprises where one can also find more managers with more than ten years of experience.

It can also be noted that 36% of managers have a second income generating activity. The influence of that second income generating activity on the enterprise is debatable. The fact of having another activity could allow the manager of the SMAE to be more efficient. However, this same factor could also rather inhibit the results of the SMAE since the second activity could absorb some of the manager's resources, particularly his time. Indeed, [28, 29] argue that more managers devote time to their business, more is the average level of income. Thus, those who devote all their time to develop their business are also the most efficient [28, 29].

3.2.3. Manager Level of Formal Education

A positive or negative relationship between the manager's formal education level and some practices in SMAE can be justified. In fact, the high proportion of people without a certificate or with a primary school leaving certificate would pose a problem for the quality of business managers and could contribute partly to the poor performance of SME [21]. Table 6 shows the level of education of the sampled managers according to the categories of SMAE.

Table 6. Managers level of formal education according to the categories of SMAE (in %).

Characteristics		Manager level of education in%		
		Primary level	Secondary level	Higher level
Legal status	Ltd	0	15.7	84.3
	SPC	0	46.4	53.6
	Cooperative	0	48.5	51.5
	CIG	9.1	50.9	40
	None	1.2	38.4	60.5
Formal status	Yes	0	31.3	68.8
	No	3.8	44.2	51.9
Type of SMAE	VSE	1.5	38.7	59.9
	SE	6.5	32.3	61.3
Overall		2	38	60

Table 6 shows that, 60% of the managers have undergone higher education against two percent with primary school level. These results are in contrast to those of the second general

census of enterprises in Cameroon, where 36% of enterprises are managed by people with primary school level, 48% with secondary school level and 15% with higher education [21]. This difference clearly shows that agrifood sector is characterised by managers with higher level of education. In addition, Ltd SMAEs have the highest proportion of managers with a higher education level, as for the formal status and type of SMAE, formal enterprises and SE have the highest share of managers with higher education respectively. On the other hand, the CIG are enterprises that have the highest proportion of managers with primary level of education.

3.2.4. Marital Status of the Manager

Married people are more likely to be more efficient entrepreneurs than those who are single [35]. Being in a couple could increase the capital needed to start a business. Furthermore, spouses can share their experience and relevant information about the opportunities of their business [17].

The results of this study show that overall, more than 6 managers out of 10 (66.7%) are married or in a common-law relationship, 31.3% are single while 1.3% are divorced and 0.7% are widowed (Table 7).

Table 7. Marital status of managers according to the categories of SMAE (in %).

Characteristics		Manager Marital status in%		
		Married/Common -law	Single	Others
Legal status	Ltd	68.6	28.6	2.80
	SPC	64.3	35.7	0.00
	Cooperative	78.8	21.2	0.00
	CIG	76.4	16.4	7.20
	None	55.8	44.2	0.00
Formal status	Yes	68.1	30.6	1.30
	No	65.4	32.1	2.50
Type of SMAE	VSE	64.3	33.5	2.20
	SE	87.1	12.9	0.00
Overall		66.7	31.3	2.00

Taking into account the different categories of enterprises, it can be seen from table 7 that the majority of managers of SE (87.1%), cooperatives (78.8%), CIG (76.4%) and formal enterprises (68.1 %) are married. Single managers are more numerous in the group of SMAE with no legal status (44.2%) followed by SPC (35.7%), VSE (33.5%) and informal enterprises (32.1%). This situation could be justified by the fact that the age of managers is relatively low in VSE, SPC and SMAE with no legal status.

3.3. Scientific and Technological Development

The level of scientific and technological development is an

indicator used to characterise SMAE. It can be measured through the agrifood production systems, the existence of some New Information and Communication Technology (NICT) tools, the quality of equipment and the practice of research and development (R&D).

3.3.1. The Nature of the Production Systems

According to [36], agrifood systems describe the ways in which factors of production are integrated to ensure the feeding of a given population. These exist at the artisanal, manufacturing and industrial levels. Table 8 presents the nature of production systems according to the categories of SMAE.

Table 8. Nature of the production system according to the categories of SMAE (in %).

Characteristics		Production System in%		
		Artisanal	manufacturing	industrial
Legal status	Ltd	55.7	38.6	5.7
	SPC	71.4	28.6	0
	Cooperative	51.5	48.5	0
	CIG	76.4	23.6	0
	None	80.2	19.8	0
Formal status	Yes	61.8	35.4	2.8
	No	75.6	24.4	0
Type of SMAE	VSE	71.0	27.5	1.5
	SE	51.6	48.4	0
Overall		69.0	29.7	1.3

Table 8 shows that the majority of SMAE in the sample have an artisanal production system (69%), which corroborates the findings of [37, 38]. In these systems, the manager or the artisan alone provides all the factors (capital-labour) necessary for the production of goods or services [36, 39]. These production units do not dissociate the notion of enterprise from that of household, either at the

accounting or at the physical level. Hence it is necessary to upgrade these artisanal production systems in order to improve the SMAE productivity. Moreover results shows that CIG, SPC, SMAE with no legal status and VSE are mostly artisanal. While, industrial SMAE are mainly counted among formal enterprise, Ltd and SE.

3.3.2. NICT Tools and Equipment Quality

Nowadays, economies rely heavily on digital technology, which has become a strategic and specific sector alongside traditional sectors. To this end, access to information, technology and knowledge represents a crucial issue for the development of enterprises [21, 40]. The use of NICTs within enterprises makes the processing and transmission of information more fluid and

improves overall productivity (reduction of deadlines, optimisation of administrative tasks, customer relationship management). It completely transforms works, life, interactions between employees and between firms, modes of organisation. Many people consider NICTs as a source of productivity and economic growth [17]. Table 9 shows the penetration rate of some NICT in the SMAE surveyed.

Table 9. Penetration rate of some NICT in SAME.

Characteristics		Use of computer		Use of internet	
		No	Yes	No	Yes
Legal status	Ltd	12.9	87.1	38.6	61.4
	SPC	39.3	60.7	58.9	41.1
	Cooperative	51.5	48.5	72.7	27.3
	CIG	65.5	34.5	76.4	23.6
	None	69.8	30.2	54.7	45.3
Formal status	Yes	25.7	74.3	44.4	55.6
	Non	68.6	31.4	69.9	30.1
Type of SMAE	VSE	50.6	49.4	58.4	41.6
	SE	25.8	74.2	51.6	48.4
Overall		48.0	52.0	57.7	42.3

Taking in to account the results in table 9, it appears that the SMAE are already fully aware of the economic stakes of some NICT in the development of their activities. Indeed, 52% of the SMAE surveyed use at least one computer and 42.3% an internet connection. The majority of Ltd have computers (87.1%) and an internet connection (61.4%). Formal SMAE mostly use computers (74.3%) and internet connection (55.6%) than informal one where 31.4% and 30.1% SMAE use a computer and internet connection respectively. As regards to the type of SME, SE stand out with almost 3 out of 4 SMAE using at least one computer and 48.5% of them having an internet connection. The appropriation of these tools is also observed in VSE where 49.4% use a computer and 41.6% have an Internet connection. Overall, it can be observed that these results have clearly improved compared to those found by [21] who reported that the use of computers within enterprises is effective for only 10.7% in Cameroon. In spite of this improvement, SMAE are not satisfied with the equipment they currently have as only 24.6% of the SMAE surveyed are satisfied with their current production equipment, compared to 75.4% of SMAE that are not. The latter consider that this equipment does not allow them to be sufficiently efficient and competitive.

3.4. Scientific Capacity and Technological Intelligence

To ensure its production and maintain it, the SME needs knowledge and know-how. These skills are acquired through, research and development routines, research and processing technical information among other things [41, 42]. Testing and experimentation, over time, bring out new problems and new opportunities for innovation [43]. However, in Cameroon enterprises produce on the fringes of research activities, since only 8% of enterprises use them [17]. Contrary to the above results, this study shows that 103 SMEs out of 300 (34.3%) SMAE have recourse to Research

and Development (R&D) in their activities (Table 10). Out of these 103 SMEs, 17.5% conduct internal R&D permanently, 74.8% also conduct internal R&D occasionally. On the other hand, 7.8% of these SMAE outsource their R&D activities.

Table 10. Percentage of SMAE using R&D.

Characteristics		R&D activities	
		No	Yes
Legal status	Ltd	55.7	44.3
	SPC	67.9	32.1
	Cooperative	66.7	33.3
	CIG	56.4	43.6
	None	77.9	22.1
Formal status	Yes	57.6	42.4
	No	73.1	26.9
Type of SMAE	VSE	69.9	30.1
	SE	29	71
Overall		65.7	34.3

When the legal status of the company is taken into account, it can be seen that Ltd are the ones that carry out more R&D. More than 4 out of 10 Ltd SMAE use this practice to carry out their activities. Moreover, on the basis of the formal status, it can be observed that most of the R&D activities are carried out by the formal SMAE where 42.4% of these enterprises declared carrying out research activities against 26.9% for the informal enterprises. In addition, it can be observed that 71% of the SE declared to have carried out an R&D activity against 30.1% of the VSE. Results also reveals that R&D is mainly occasional (82.5%) and internal (92.3%), only 7.7% of SMAE surveyed outsource this activity.

With regard to technology intelligence activities, 91% of the SMAE surveyed stated that they are aware of technological developments in their fields of activity. On average, each SMAE uses 2 strategies to obtain this information. The maximum number of strategies used is 6 and the minimum zero. Figure 8 presents the different strategies used by the SMAE to obtain information on technological developments in their fields.

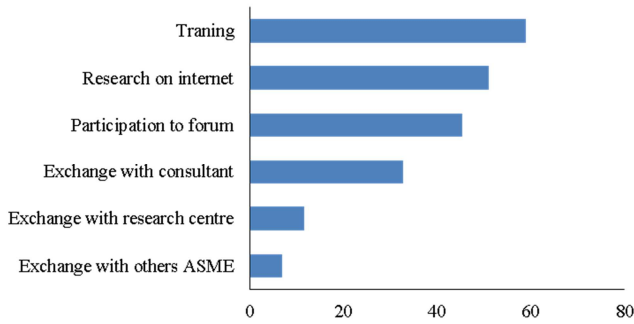


Figure 8. Strategies used by SMAE to keep abreast of technological developments in their fields (in %).

Figure 8 indicates the different strategies used by the SMAE to keep abreast of technological developments were it can be observed that the most important are training and research on internet. Only 7% of SMAE approach their peers to learn about technological developments, compared to 59% who use training.

3.5. Commercial Strategy and Business Intelligence

Commercial and strategic information is an essential resource for the competitiveness of an enterprise. In commercial strategies, the lack of market information is perceived as a barrier to innovation [44]. Market orientation is measured by the company's commitment to direct its strategic decisions based on market intelligence and from knowledge it generates or acquires about its current or potential customers but also about its competitors [33]. The company with a high degree of market orientation therefore prioritises the study of consumers: perception, satisfaction, tastes and preferences, behaviour, etc. [45].

On average, the surveyed SMAE use 2.38 strategies to gain new customers. The maximum number of strategies used is 4 and the minimum is 1. Figure 9 shows the different strategies used by the SMAE to gain new customers.

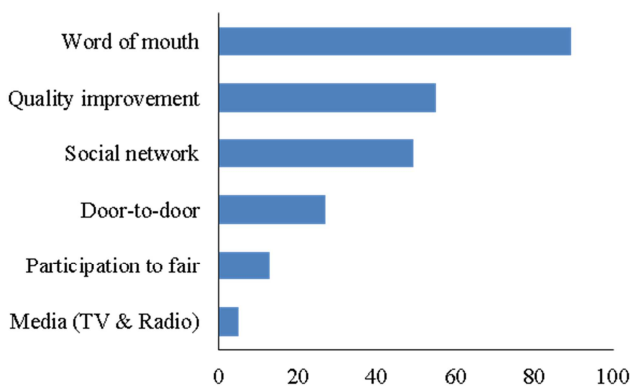


Figure 9. Strategies used by SMAE to gain new customers (in %).

The results in figure 9 shows that 89.3% of the SMAE surveyed use word of mouth to gain new customers, 55% improve the quality of their products and 49.3% use social networks. Only 5% of SMAE use TV and radio media.

Concerning business intelligence, 2.47 strategies are used

with a maximum of 3 and a minimum of 0. Figure 10 presents the different strategies used by SMAE to obtain information on customer satisfaction.

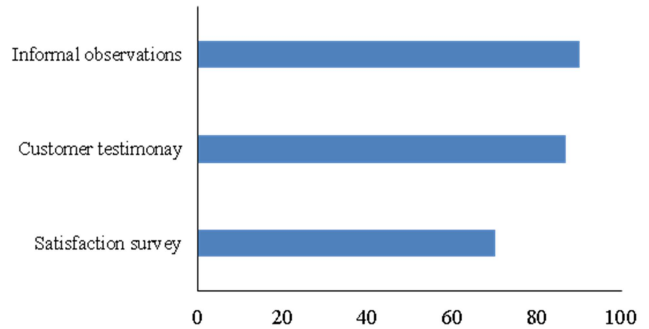


Figure 10. Business intelligence strategies used by SMAE (in %).

Figure 10 shows that 70% of SMAE conduct satisfaction surveys to obtain information on customer satisfaction. In addition, 90% of them rely on informal observation and 87% on voluntary customer testimonials to obtain market information.

3.6. Organisational Structure

Organisational structure refers, among other things, to the method of decision making or coordination, the functionality or the way in which work is organised, the frequency with which employees' views are taken into account, the frequency with which meetings are held, the knowledge of the enterprise's development and existence or not of job descriptions [46]. Table 11 shows the distribution of the surveyed SMAE according to their organisational structures.

Table 11. Organisational structure of SMAE surveyed.

Variable	Value	Percentage
Method of decision making	Centralised	85.3
	Decentralised	14.7
Work organisation	Grouped	87.7
	Specialise	12.3
Frequency of employee consultation	Never	14.0
	Most often	64.7
Frequency of meeting	Every time	21.3
	Never	35.3
	After many month	5.70
Evolution of the SMAE known by employee	At least once a month	59.0
	Yes	86.0
	No	14.0
Job description existence	Yes	18.8
	No	81.2

The results in Table 11 show that 85.3% of the SMAE surveyed have a centralised decision-making process. However, the organisation of work is grouped 87.7% of SMAE, which could explain the fact that 81.2% of enterprises do not have job descriptions. In addition, 14% of managers never consult employees before making a decision while 64.7% consult them most often. On the other hand, 35.3% of SMAE never organise meetings with employees. Despite this, employees are informed about the company's development in 86% SMAE.

3.7. Collaboration

Generally, partnerships or business alliances are forms of collaborative relationships between separate organisations that involve joint contributions. Opening up the business to the outside world through partnerships or other forms of collaboration with suppliers, customers, consultants, SMEs and many other organisations can provide some of the missing elements in the enterprise's development process. On the other hand, they can allow the enterprise to share its experience and knowledge with its partners [47]. The absorptive capacity of enterprise should be complemented by explicit cooperation agreements [43]. To this end, the results of the study show that SMAE collaborate on average with 2.91 partners with a maximum of 6 partners and a minimum of 1. Figure 11 presents the typology of different partners that collaborate with the SMAE surveyed.

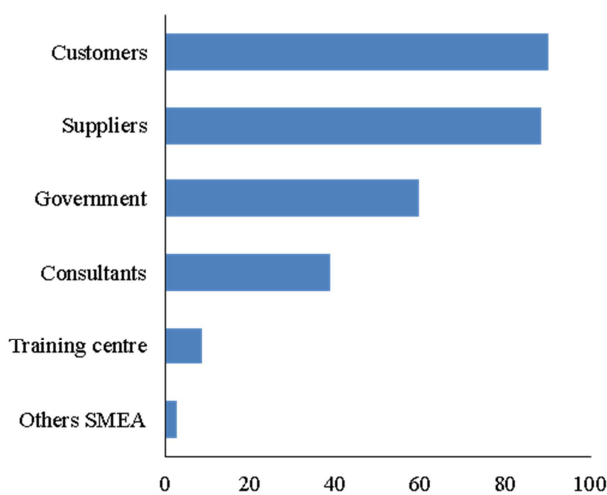


Figure 11. Distribution of SMAE by type of partner (in %).

Figure 11 shows that the main partners with whom SMAE collaborate are customers, suppliers, the Government, consultants, training centres and other SMAE. It is also observed that 9 out of 10 enterprises collaborate with their clients, 88.3% collaborate with their suppliers. These observations corroborate the assertions of [48], who found that customer-supplier duos are the most frequent in terms of collaboration. According to [49], enterprises in the agrifood sector are dependent on suppliers, especially when it comes to technology. Therefore, they need to engage in cooperative links with these suppliers to considerably increase their technology absorption capacity [49]. On the other hand, very few SMAE cooperate with training centres (8.7%) and others SMAE in the same sector (2.7%). In addition, only 16.3% of the SMAE surveyed belong to a group and 15.3% have partners abroad. These results seem to reflect a low willingness of SMAE to work with their peers at the local level and abroad.

4. Conclusion

The objective of this study was to characterise SMAE in

three regions of Cameroon. The results show that studied SMAE are essentially made up of VSE. Because of their size, they have relative low revenues, which considerably reduces their room in carrying out their activities. Legally, only 42% of them are organised in the form of a company (SPC and Ltd). This shows that these enterprises are mostly informal. Indeed, informal SMAE represent more than half of the enterprises surveyed. These types of businesses generally seek to operate in the shadows or in a hidden manner to avoid paying taxes. They are therefore unable to benefit from the advantages offered by their environment, among others.

Moreover, the SMAE studied are very young (less than 10 years old), they have a very high death rate, certainly because of their weak structuring. Be formal and having high revenues should allow SMAE to have a relatively long life span and to develop more. In addition, the results show that PO have a longer life span than companies. This observation raises questions about taxation, financial system, level of development of these enterprises and commercial strategies.

From a fiscal point of view, taxes that formal SMAE are supposed to pay seem to be inadequate. It could be link to the early death of some of these enterprises. Besides, SMAE are mainly financed by their personal funds. Because of their informality, financial institutions are generally reluctant to offer them credit. However, there is a minority of financial institutions that provide some credit to companies, while PO are the ones that benefit most from subsidies. These observations show that external funding sources are more willing to finance enterprises with some legal recognition.

At the management level, it can be observed that, as compared to agricultural and many other sectors, SMAE are mainly run by women. They are great artisans of development in Africa, even though they do not generally have access to all the facilities offered to men. Mitigating inequalities they face could increase the performance of enterprises they manage. In addition, managers of SMAE are relatively experienced and older. The majority of them have an average of almost 10 years' experience, with an age range of between 41 and 50 years. Thus, it can be seen that with age, entrepreneurs acquire resources and skills that young people do not have. Talking about skills or knowledge, the results of the study show that SMAE leaders are fairly well educated with regard to formal education. The majority of them have undergone higher education. These managers are also mostly married. Marriage can be an advantage for the business as spouses can advise each other or contribute financially to the development of the business.

Although they are aware of the technological developments and challenges in their field, SMAE have predominantly artisanal production system. Moreover, they do not have qualified personnel and very few of them (about one out of three SMAE) carry out R&D activities. Above all, SMAE are dissatisfied with the quality of the equipment they use. Indeed, the low financial capacity of these enterprises does not allow them to have qualified personnel and better production systems. Therefore, they are neither efficient nor competitive. Nevertheless, these enterprises make efforts to obtain

technological information through training, internet research and forums.

Concerning commercial activities, SMAE do not have clearly defined strategies. They count mainly on word of mouth, quality improvement and some promotions via social networks. It is also observed that they rely on informal observation, customer testimonials and satisfaction surveys for business intelligence. These strategies used by SMAE are not efficient, accordingly their commercial results are inefficient.

The organisational structure of SMAE shows that the decision-making process in these enterprises is centred on the managers. In his absence, the business can be paralysed. Moreover, in these units, activities are usually done in groups, there are very little specialisation and job description. However, employees are very often consulted before decisions are made. In addition, personnel's meetings are held frequently, and employees are kept informed of the company's development most often. This participative management style in SMAE could increase their performance.

The results also show that SMAE collaborate with customers, suppliers, government, consultants, training centres and other SMAE. Collaborations with customers and suppliers are the most observed. About nine SMAE out of ten collaborate with them. On the other hand, very few companies collaborate with training centres (9%) and other SMAE (3%), even though these collaborations could enable them to solve some problems without any internal solutions. This low level of collaboration with training centres could explain the poor quality of human resources in SMAE. Normally, it should be a match between human resources needs by enterprises and the training offered by these centres. Furthermore, the individualism that characterises small enterprises may justify the low level of collaboration of SMAE with their peers.

5. Recommendations

Thus, to increase the competitiveness and performance of SMAE, this paper suggests to:

- 1) Sensitize SMAE to the advantages of being formal;
- 2) Put in place fiscal measures that match up with SMAE's activities;
- 3) Develop financial systems adapted to SMAE's reality;
- 4) Empower women and reduce gender inequalities in order to improve their managerial performances;
- 5) Raise young entrepreneurs awareness of the importance of perseverance and the benefit of marriage on business;
- 6) Help SMAE managers and their personnel to continuously build their capacity;
- 7) Support SMAE financially and technically;
- 8) Help SMAE in developing well defined business strategies;
- 9) Sensitize SMAE managers to the importance of decentralisation in their activities;
- 10) Promote collaboration between SMAE and strategic partners in their environment.

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References

- [1] Jacquemot, P. (2017). Le mythe de l'abondance des terres arables en Afrique. (WillAgri, Éditeur) Consulté le Septembre 23, 2020, sur Will Agri-Comprendre les enjeux de l'agriculture: <https://www.willagri.com/2017/11/20/mythe-de-labondance-ter-res-arables-afrique/>
- [2] Banque Mondiale. (2013). Eliminer l'extrême pauvreté-Promouvoir une prospérité partagée. Rapport annuel, Banque Mondiale, Washington DC.
- [3] Organisation des Nations Unies (ONU). (2016). Nations unies au Cameroun: Rapport annuel 2016.
- [4] Institut de Recherche Agricole pour le Développement (IRAD). (2008). Deuxième rapport sur l'état des ressources phytogénétiques pour l'alimentation et l'agriculture au Cameroun. Yaoundé, Cameroun: IRAD. Consulté le 03 21, 2019, sur http://www.fao.org/pgrfa-gpa-archive/cmr/Cameroon_2nd_PG_RFA_Report.pdf
- [5] Awono, C., & Havard, M. (2011). Le rôle des importations dans la consommation alimentaire au Cameroun. Cahier de Recherche, 11 (02), pp. 1-19. Consulté le Avril 04, 2019, sur <http://gredi.recherche.usherbrooke.ca/wpapers/GREDI-1102.pdf>
- [6] Westphal, E., Embrechts, J. D., Van Gils-Meeus, H. A., Mutsaers, H. J., & Westphal-Stevens, J. M. (1985). Cultures vivrières tropicales avec référence spéciale au Cameroun. Pudoc Wageningen: Centre for Agricultural Publishing Documentation, Wageningen, the Netherlands.
- [7] Banque Mondiale. (2018). Briser Les obstacles au commerce Agricole régional en Afrique Centrale. Washington DC.
- [8] Tsafack, N. R. (2006). Economie politique d'une dynamique dans les exportations camerounaises. Nordic Journal of African Studies, 15 (3), 344-366.
- [9] St-Pierre, J., Foleu, L., Abdul-Nour, G., & Nomo, S. (2015). Les freins au développement des PME Camerounaises: Qu'en pensent les entrepreneurs? 6th Africa Business and Entrepreneurship Conference (p. 25). New York: Institut de recherche sur les PME, Université du Québec à Trois-Rivières.
- [10] Fongang, G. H. (2012). Les organisations de producteurs en Afrique de l'Ouest et du Centre: attentes fortes, dures réalités-Le cas du Cameroun. Fondation pour l'agriculture et la ruralité dans le monde, IRAM, Bureau Issala.
- [11] Fongang G. H. (2010). Evolution du mouvement paysan au Cameroun. Consulté le 09 12, 2017, sur http://www.inter-reseaux.org/IMG/pdf_p7_8_OP_Cameroun.pdf
- [12] Mandjem, Y. P. (2015). Le Cameroun face aux APE: risque ou opportunité? Friedrich-Ebert-Stiftung Cameroun/Afrique Centrale. Yaoundé (Cameroun): Presses Universitaires d'Afrique.
- [13] République du Cameroun. (2009). Document de Stratégie pour la Croissance et l'Emploi.

- [14] République du Cameroun. (2014). Plan National d'Investissement Agricole du Cameroun. Volume 1 Version finale.
- [15] Programme des Nations Unies pour le Développement (PNUD). (2018). Exploiter le potentiel de l'agro-industrie pour soutenir la transformation structurelle en Afrique Centrale. Addis-Abeba: Commission économique pour l'Afrique.
- [16] Eloundou, E. C., Fon, D. E., & Minkoua, J. R. (2021a). Socio-economic Characteristics of Family-run Maize Farm in the Centre Region of Cameroon. *American Journal of Agriculture and Forestry*, 9 (4), 232-237.
- [17] Chameni, M. C., & Fomba, K. B. (2015). Rapport général de l'étude sur les déterminants de la performance des entreprises en Afrique sub-saharienne francophone: Cas du Cameroun, de la Côte d'Ivoire et du Sénégal. Rapport du Cameroun, CRDI; CAPEC; LAREM; CEREG.
- [18] Institut National de la Statistique (INS). (2012). Note de présentation des résultats provisoires du commerce extérieur du 1er semestre 2012. Yaoundé, Cameroun. Consulté le Juillet 28, 2017, sur <http://www.statistics-cameroon.org/downloads/Statistiques/conjoncture/comex1S2012.pdf>
- [19] Institut National de la Statistique (INS). (2018b). Evolution des importations des produits alimentaires de grande Consommation et impact sur l'économie nationale. Institut National de la Statistique, Département des Synthèses Economiques. Yaoundé: République du Cameroun.
- [20] Dejo, G. (2017). L'industrie agroalimentaire comme levier indispensable à la croissance du Cameroun. Nkafu Policy Institute. Consulté le 09 2017, 12, sur <https://www.foretiafoundation.org/wp-content/uploads/2017/01/Lindustrie-agroalimentaire-comme-levier-indispensable-%C3%A0-la-croissance-du-Cameroun.pdf>
- [21] Institut National de la Statistique (INS). (2018a). Deuxième recensement général des entreprises (RGE-2). Institut National de la Statistique. Yaoundé: République du Cameroun. Consulté le Avril 08, 2019, sur http://slmp-550-104.slc.westdc.net/~stat54/downloads/2018/Projet_de_rapport_preliminaire_RGE2_du_29_decembre_2017_final.pdf
- [22] Muiruri, S. (2017). African Small and Medium Enterprises (SMEs) Contributions, Challenges and Solutions. *European Journal of Research and Reflection in Management Sciences*, 5 (1), 36-48.
- [23] Tadesse, A. (2009). Quelles perspectives de financement pour les PME en Afrique? *La Revue de PROPARCO* (1), pp. 17-19.
- [24] Le Bas, C., & Nkakene, M. L. (2020). Les déterminants de l'innovation dans une économie africaine à revenu intermédiaire, une réévaluation des modèles d'innovation. *Technologie et Innovation*, 5 (3), 1-14.
- [25] Institut National de la Statistique (INS). (2011). Recensement général des entreprises (RGE 2009). Institut National de la Statistique, Rapports thématiques. Yaoundé: République du Cameroun.
- [26] Tekam, O. H., & Pilag K. B. (2019). Entrepreneurship and capacity of innovation, cases of agro-food SMEs. Empirical evidence on Cameroon data and implications for sectoral development policy. *Munich Personal RePEc Archive* (92377), 1-16.
- [27] République du Cameroun. (2015a). Loi N° 2015/010 du 16 juillet 2015 modifiant et complétant certaines dispositions de la loi N°2010/001 du 13 avril 2010 portant promotion des petites et moyennes entreprises au Cameroun. Yaoundé: Présidence de la république.
- [28] Kede, N. F., & Tsafack, N. R. (2017a). Building entrepreneurship in developing countries: evidence of the role of informal activities in increasing entrepreneur performance in Cameroun. *Munich Personal RePEc Archive* (88665), 1-28. Récupéré sur <https://mpra.ub.uni-muenchen.de/88665/>
- [29] Kede, N. F., & Tsafack, N. R. (2017b). Contraintes environnementales et entrepreneuriat informel au Cameroun. *Revue africaine de management*, 2 (1), 68-86.
- [30] République du Cameroun. (2015b). Manuel des Concepts et Définitions utilisés dans les statistiques officielles au Cameroun. Yaoundé: MINEPAT-Conseil National de la statistique.
- [31] Bureau International du Travail (BIT). (2015). Les petites et moyennes entreprises et la création décentes et productifs. Genève: Conférence internationale du travail, 104e session.
- [32] Bureau International du Travail (BIT). (2016). La formalisation des PME dans les chaînes d'approvisionnement en Amérique latine: quel rôle jouent les entreprises multinationales ? Genève: Département des entreprises.
- [33] St-Pierre, J., Trépanier, M., & Razafindrazaka, T. (2013). Analyse des pratiques d'innovation dans les PME: facteurs endogènes, facteurs exogènes et perspective systémique. Institut de Recherche sur les PME. Université du Québec à Trois-Rivières.
- [34] Julien, P. A., & Carrier, C. (2005). Innovation et PME. Dans P.-A. Julien, Les PME: bilan et perspectives (éd. 3e). Québec: Presses Inter-Universitaires.
- [35] Eloundou, E. C., Fon, D. E., & Minkoua, J. R. (2021b). Measuring the Technical and Scale Efficiency of Smallholder Maize (*Zea mays*) Farmers in Cameroon: The Case of the Centre Region. *Asian Journal of Agricultural Extension, Economics & Sociology*, 39 (10), 44-56.
- [36] Bendellali, Z. (2018). Les défis d'importation et d'exportation de l'industrie agroalimentaire algérienne face à la crise: Etude de cas dans la wilaya de Bejaia. Université Abderrahmane Mirar de Bejaia. Faculté des sciences économiques, commerciales et de sciences de gestion, Mémoire de fin de cycle pour l'obtention d'un Master en Sciences Commerciales.
- [37] Rastoin, J.-L. (2016). L'industrie et l'artisanat agroalimentaires, fondements potentiels d'une stratégie responsable et durable à ancrage territorial. *CAIRN*, 1 (229), 63-70.
- [38] Weill, P., & Broyé, V. (2014). Innovation: où est l'industrie agroalimentaire. Paris: Le Baromètre Ouest Valorial-KPMG.
- [39] Chouiraf, F., & Chafi, A. (2016). L'artisanat est une industrie. Fès-Maroc: Centre des Etudes Doctorales: Sciences et Techniques de l'Ingénieur, laboratoire des techniques industrielles de la Faculté des Sciences et Techniques de Fès. Récupéré sur <https://www.researchgate.net/publication/333036059>
- [40] Driouchi, A., & Gamar, A. (2016). Entrepreneurship and its Link to Corruption: Assessment with the Most Recent World and Country-Group Data. *Journal of African Studies and Development*, 8 (2), 13-20.

- [41] Terziovski, M. (2010). Innovation practice and its performance implications in small and medium enterprises (SMEs) in the manufacturing sector: A resource-based view. *Strategic Management Journal*, 31 (8), 892-902.
- [42] O'regan, N., Gobadian, A., & Gallear, D. (2006). In search of the drivers of high growth manufacturing SMEs. *Technovation*, 26 (1), 30-41.
- [43] Rahmouni, M., & Yildizoglu, M. (2011). Motivations et déterminants de l'innovation technologique: Un survol des théories modernes. *Universités d'Aix-Marseille II et III*.
- [44] Hewitt-Dundas, N. (2006). Resource and capability constraints to innovation in small and large plants. *Small Business Economics*, 34 (8), 257-277.
- [45] Jaworski, B. J., & Kholi, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, 57 (3), 53-70.
- [46] Rey, J. (2014). Croissance, innovation et gestion dans les petites et moyennes entreprises industrielles du Nord-Ouest de l'Argentine: un modèle relationnel quantitatif. *Université de Lorraine. Ecole Doctorale RP2E*.
- [47] Chesbrough, H., & Bogers, M. (2014). Explicating open innovation: clarifying an emerging paradigm for understanding innovation. Dans H. Chesbrough, W. Vanhaverbeke, & J. West, *New frontiers in open innovation* (pp. 3-28). Oxford, England: Oxford University.
- [48] Fischer, M. M., & Varga, A. (2002). Technological innovation and interfirm cooperation: An exploratory analysis using survey data from manufacturing firms in the metropolitan region of Vienna. *International Journal of Technology Management*, 24 (7-8), 724-742.
- [49] Rama, R., & Von Tunzelmann, N. (2008). Empirical Studies of Innovation in the Food and Drink Industry. *Handbook of Innovation of the Food and Drink Industry*, 13-49.