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Rattan Governance: Actors' Motivation and Interest in Meme Division, Cameroon's Rattan Production and Transformation

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Abstract

The study examined rattan governance, focusing on the motivation and interests of actors in Meme Division, Cameroon's rattan production, and transformation. Both descriptive and explanatory designs were used. A multistage sampling technique was used. Primary and secondary sources of data were used. A sample size of 332 respondents was used. Structured questionnaires and observation were used to collect primary data. Secondary data sources included published and unpublished materials. Descriptive statistics were used for data analysis, and simple linear regression was used to test the hypothesis. Regression results for actors' interest and motivation in rattan production and transformation are 0.904 for production and 0.908 for transformation, both of which exceed the typical p-value of 0.05. Consequently, the beta coefficient indicates that the factors influencing production and transformation are positively correlated with actors' motivation and interest. Results revealed three typologies of actors (state actors, community-based actors, and civil society actors) involved in rattan production and transformation. Findings on determinants of actors' motivation and interest in rattan production reveal favourable climate (24.4%), income generation (27.1%), cultural significance (37%), and cultural symbolism (28%) were influential motivating factors. Results on actors' motivation and interest in rattan transformation indicate that climate change resilience (56%), adaptability (28.4%), social cooperation (39%), and traditional handicraft (40%) are some of the contributing factors. The study concludes that the government, non-governmental organizations, and community actors should develop policies aimed at promoting the growth of this sector, as rattan production and transformation are profitable activities in the Meme Division.

Key Words: Meme Division, Motivation and Interest, Production, Rattan Governance, Transformation

1. Introduction

Since the beginning of time, non-timber forest products (NTFPs) have been used by people, particularly those living near forests, for both personal consumption and for processing into goods with potential for sale (Haryono *et al.,* 2022). When transformed into home goods, rattan, one of the NTFPs, holds significant economic value (Haryono *et al.,* 2022). Rattan's presence in forested areas undoubtedly draws attention to its potential for boosting people's incomes (Haryono *et al.,* 2022). In comparison to other non-timber forest products, rattan, which is categorized as a non-timber forest product (Latifah *et al.,* 2024), generates substantial foreign exchange gains (Shrestha *et al.,* 2020). Rattan is a non-timber forest product that plays a crucial role in international trade development, industrialization programs, employment creation, welfare distribution, and development initiatives (Mofor *et al.,* 2020). One important non-timber forest product (NTFP) that offers chances to preserve forests in developing nations is rattan (Pratono, 2020). To create a sustainable forest management paradigm, the Food and Agriculture Organization (FAO) has made this a top priority (Food and Agriculture Organization, 2004).

According to Mofor *et al.* (2020), 20 species in Africa belong to four genera. Three of these genera, *Laccosperma, Eremospatha,* and *Oncocalamus*, are widely distributed throughout the continent. In Europe, North America, Japan, and other countries, rattan production and markets appear to be expanding gradually (Blažková & Jeníček, 2006), establishing the foundation for actors' motivation and interest in the production and transformation of rattan, as well as the necessity of good governance. The popularity of materials in furniture design and manufacture, particularly in Europe, has also contributed to this expansion (Maulana & Suharno, 2016). Formal and informal norms, rules, processes, and social practices that define how people and organizations interact and behave, assign roles to participants in these practices both inside and outside of organizations, and direct interactions among the occupants of the relevant roles are all considered forms of governance in this study (IDGEC 1999, Ostrom 1990).

Now, Cameroon lacks a distinct national or municipal policy to support the rattan industry (Ingram *et al.,* 2011). However, a policy seems to be taking shape, such as Decree No. 95/531/PM of 23 August 1995, which lays out the process for implementing the forest system, and Law No. 94/01 of 20 January 1994 on the Forestry, Wildlife, and Fisheries Regime (Casey *et al.,* 2017; Che *et al.,* 2021; Che, 2022), which has undergone multiple revisions and is an important piece of legislation

(Anaka & Edawa, 2019). The formal commitment of Cameroon to join INBAR, an international organization dedicated to promoting bamboo and rattan as sustainable resources, is also documented in Law No. 2021/017 of December 16, 2021, on Cameroon's Accession to the Agreement on the Establishment of the International Network for Bamboo and Rattan (INBAR) (The Guardian Post, 2025). According to Kimengsi *et al.* (2022), this law specifies rules for forest management, including the collection of forest products such as bamboo, bush mango, and rattan. Rattan is considered an "invisible product" in Cameroon since they are not expressly addressed by laws or policies (Ingram *et al.,* 2015; Meyabeme *et al.,* 2021). Rattan is categorized as a moderately vulnerable forest resource in category B of Cameroon's Non-Timber Forest Products (NTFPs) and special forest products per Decision No. 0209/D/MINFOF/CAB on April 26, 2019 (Nfornkah *et al.,* 2022). The primary commercial rattan species in Cameroon are thought to be *Laccosperma secundiflorum, L. robustum, E. macrocarpa, E. wendlandianna,* and *Calamus deerratus* (Gonmadje *et al.,* 2018).

There are no legal or customary restrictions on gathering rattan from the wild in Cameroon's Southwest region, particularly in Meme Division, making it an "open access" resource. But because there is a lack of knowledge on rattan governance, choices about the management and governance of these crucial resources must be well-informed. Actors' long-term interest and motivation in the sector are threatened by unsustainable practices like deforestation (Ngaba *et al.,* 2023) and overexploitation of rattan resources (Nfornkah *et al.,* 2021; Nfornkah *et al.,* 2022; Ajonina, 2022; Nzengue *et al.,* 2023). Furthermore, indigenous populations that depend on these forests for their livelihoods have suffered because of the unsustainable extraction of timber resources (Sikka *et al.,* 2013). Therefore, while the rattan production and transformation industry plays a critical role in the Meme Division and Cameroon's Southwest Region, economic and cultural development, governance, and sustainable practices are necessary to motivate actors and ensure long-term viability. The study intends to analyze the actors' typology and determinants of actors' motivation and interest in rattan production and transformation in the Meme Division. For sustainable management, research on rattan governance, actors' motivations, and interest in rattan production and transformation is therefore vital in Cameroon and the world at large.

2. Materials and Methods

2.1 Study Area

The research was carried out in the Meme Division, one of the six divisions that make up Cameroon's Southwest Region (Aminkeng *et al.,* 2024). It has a population of about 326,734 inhabitants (BUCREP, 2010) and a total surface area of roughly 3,105 km² (Aminkeng *et al.,* 2024). Figure 1 illustrates the five subdivisions that make up this division: Mbonge and Konye (more rural) and Kumba I, II, and III (more urbanised) (Mbella & Fonjong, 2018). The Division is located east of the Greenwich Meridian, between latitudes 4°N and 6°N (Epule & Bryant, 2017) of the Equator and longitudes 9°E and 10°E (Kimengsi *et al.,* 2013). The Ndian Division borders it on the west, the Fako Division borders it on the south, the Kupe Muanenguba Division borders it on the north, and the Littoral Region borders it on the east (Frederick Mbufor *et al.,* 2023). The local populace works in manufacturing, agriculture, and other postsecondary occupations (Beckline *et al.,* 2016, 2018). Meme Division is in the hot, humid equatorial climate zone, which has two distinct seasons: the rainy season, which lasts for approximately 8 to 9 months (March to October), and the dry season, which lasts for approximately 3 to 4 months from October to March (Kimengsi & Tosam, 2013; Frederick Mbufor *et al.,* 2023). The dry season's peak, February to April, has the highest recorded temperatures, while the rainy season's peak, July to September, has the lowest (Meme Divisional Delegation for Agriculture and Rural Development, 2006). Rattan, a tropical forest plant that does well in these rainfall and temperature circumstances, grows during these two distinct seasons.

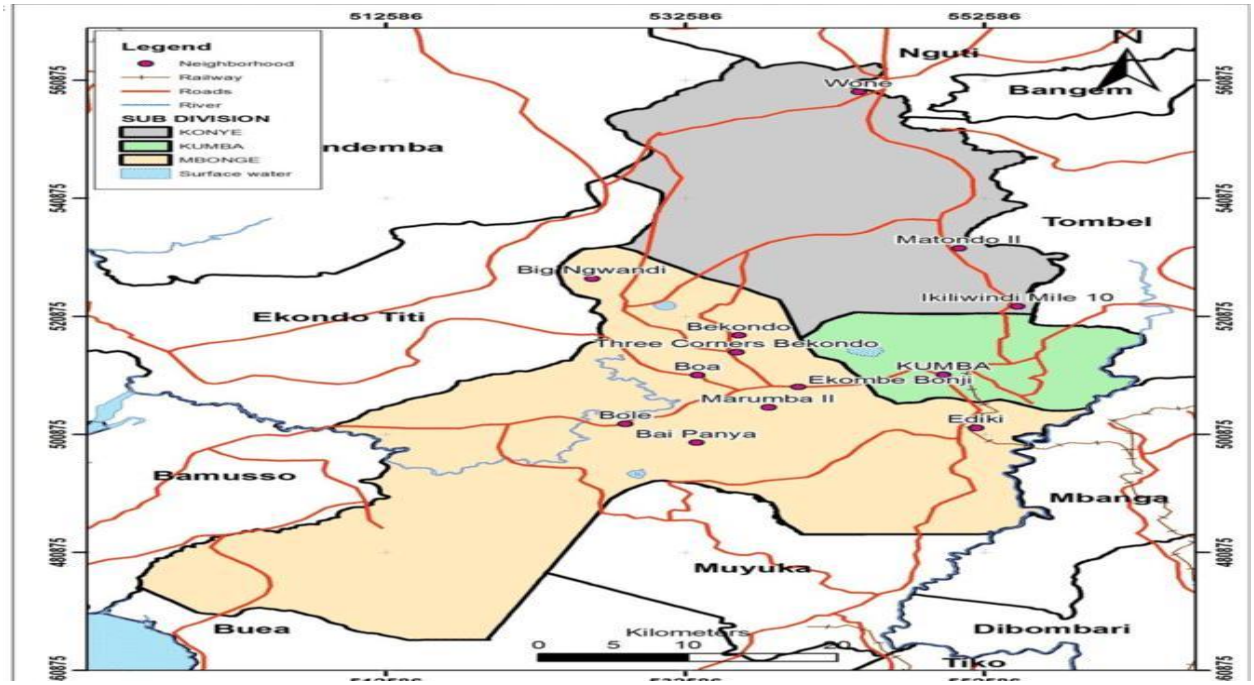


Figure 1: Map of Meme Division

Source: Adapted from Mbella & Fonjong (2018)

2.2 Research Design

This research employs descriptive and explanatory research designs. A descriptive research design aims to accurately and systematically describe a phenomenon, population, or situation as it naturally occurs (Kumar & Lal, 2025; Dharavath, 2025), while an explanatory research design goes beyond description to understand the "why" behind phenomena, seeking to explain relationships between variables and establish cause-and-effect connections (Al-Ababneh, 2020).

2.3 Study population

The estimated 326,734 inhabitants who resided in the Meme Division's five subdivisions made up the research population. These subdivisions include Kumba I, Kumba II, Kumba III, Mbonge, and Konye Subdivisions. The target population is about 11,759 inhabitants who are motivated and interested in rattan production and transformation in the Meme Division of Cameroon's Southwest region. This population is made up of a population of 15 villages, including Ikiliwindi, Baduma, Mbakwa Supe, Mbu, Mosanja, Diongo, Mofako Butu, Big Butu, Matoh Butu, Mbalangi, Ediki, Banga Bakundu, Bombe Bakundu, Mundame, and Mambanda, selected for the study. This

comprises traders, government agencies, non-governmental organizations, small-scale rattan producers and transformers, and other actors in the rattan value chain who were included in the sample.

2.4 Sample Size and Sampling Techniques

A multi-stage sampling technique was used. In the first stage, the Meme Division was purposefully selected due to its extensive forest and the availability of rattan. Based on the motivation and interest of the actors involved in the production and transformation of rattan, 15 rattan-producing communities were also purposefully selected in the second stage. These fifteen communities were divided into four groups: Meme North, Meme West, Meme East, and Meme South in the third stage. From each of these four groupings, the researchers proceeded to identify every actor engaged in the production and transformation of rattan. A total of 332 respondents were selected by simple random sampling in the fourth stage, with 83 respondents selected from each of the four groupings. For the qualitative data, twelve (12) key informants were purposefully selected, including traders, government agency representatives, non-governmental organization representatives, and small-scale rattan producers and transformers. Each group also had one (1) focus group discussion, for a total of four (4) focus groups.

2.5 Data Collection

Structured questionnaires, a key informant interview guide, a focus group discussion guide, and observation were used to gather data from primary sources. Two seasoned enumerators assisted in this process and were trained by the researchers on research protocols. Since some motivated and interested actors might not speak either of the two official languages (English and French) or even Pidgin English, this was done to cut costs, save time, and remove language barriers. To get information from individuals who were driven and interested in the production and transformation of rattan, these trained enumerators lived in and were proficient in the various communities. A hotline was set up for continuous communication and follow-up to guarantee that the right data was gathered and that the gathering procedure went smoothly. Particularly, information was gathered regarding the typology of actors involved in rattan production and transformation in the Meme Division and determinants of actors' motivation and interest in rattan production and transformation in the Meme Division. Additionally, the study's conceptualization and completion were facilitated by the collection of secondary data through document reviews. Publications such

as Ingram & Schure (2010), Kimengsi & Tosam (2013), Epule & Bryant (2017), Mbella & Fonjong (2018), Nfornkah *et al.* (2022), Frederick Mbufor *et al.* (2023), and others were the primary reviewed documents. Additional documents were gathered from unpublished resources, books, dissertations, the internet, and libraries.

2.6 Validity and Reliability

To guarantee the validity of the instruments, both face and content validity were applied. To make sure they sufficiently cover the entire spectrum of the notion being measured, the researchers pre-tested the tools and examined the results. Before the research was carried out, any inconsistencies in the research questions were corrected. To validate the instruments, the researchers administered a subset of the instruments at a different location from the actual study area to verify consistency and repeatability.

2.7 Data Analysis

The data for the study were analyzed using descriptive statistics. Data from the questionnaires were manually sorted, and SPSS Version 20 was used for analysis to create statistical tables and figures. Using Microsoft Excel version 13, statistical data were further examined and shown as frequency and percentage charts. Tables, pie charts, bar charts, and histograms were used to display the data. The study's hypothesis was tested using simple linear regression analysis. As quickly as feasible, the qualitative data were transcribed verbatim after the interviews. The categories that were identified were coded and categorized. To identify commonalities and discrepancies, the coded results were compared. After triangulating the data, the results were displayed.

3. Results

3.1 Actor Typologies in Rattan Production and Transformation in the Meme Division

The several actors involved in the production and transformation of rattan play a crucial role in influencing the sector's dynamics. Below, we examine the various actors actively involved in rattan production and transformation within the Meme Division, highlighting their respective roles and responsibilities.

3.1.1 State Actors

The Meme Division's economic dynamics and community livelihoods are significantly influenced by the participation of state actors in production and transformation. Rattan, a vital part of Cameroon's economy based on natural resources, is recognized as a significant source of revenue for the local communities where production and transformation occur (Nfornkah *et al.,* 2022). Every step of the rattan value chain, from harvesting and processing to marketing, is impacted by state actors, which include governmental organizations and regulatory authorities, through policies, rules, and resource management techniques (Ingram & Schure, 2010). The various delegations of the Ministry of Environment, Nature Protection and Sustainable Development; the Ministry of Forestry and Wildlife; the Ministry of Trade and Commerce; the City Council; and the five Subdivisional Councils of Kumba I, II, III, Mbonge, and Konye are among the state actors in the Meme Division, according to the review of the literature. Therefore, understanding their roles is crucial for illustrating the complex interactions among governance, economic growth, and environmental sustainability in this rapidly declining area of the Meme Division's economy.

3.1.2 Community-Based Actors

Community-based actors in the Meme Division create an essential web of knowledge and dedication. Local harvesters and collectors are at the heart of this complex web, and their unparalleled forest expertise, combined with their careful harvesting and collecting methods, make them stand out in rattan production and transformation. These harvesters provide the raw materials needed for the subsequent step (processing), making them the backbone of the rattan value chain despite their lack of formal organization into cooperatives or associations. Then, artisans who are proficient in the delicate process of rattan weaving take over, turning unfinished stems into sturdy furniture pieces and creating the ideal showcase for the area's artistry. In addition to providing access to markets, traders and retailers also make sure that the profits from this priceless resource are reinvested in the local community. Customers who use the finished items are the final but certainly not the least group of actors that have been recognized. In the Meme Division's rattan production and transformation, these community-based actors work together to promote economic development and environmental care in addition to upholding tradition.

3.1.3 Civil Society Actors

To integrate sustainable practices with community empowerment, civil society actors are essential. At the forefront of conservation efforts are non-governmental organizations (NGOs) like the Meme Rattan Conservation Society and the Organization for Environmental Protection and Rural Infrastructure Development (OREPRID), which collaborate with stakeholders to support sustainable rattan extraction methods and safeguard the forest ecosystem. Furthermore, despite their small numbers, these groups play a significant role in strengthening regional harvesters and craftspeople, particularly when it comes to promoting the need for sustainable harvesting practices for future generations. A thriving and sustainable rattan value chain that benefits the community and the environment is being created in the Meme Division by these civil society actors, who are also promoting economic resilience and environmental stewardship in addition to upholding the rich legacy of rattan weaving.

3.2 Determinants of Actors' Motivation and Interest in Rattan Production and Transformation in the Meme Division

Rattan is a sustainable natural resource that provides economic opportunities and a means of livelihood for tropical populations. Realising the industry's full potential to support economic growth, uplift communities, and preserve traditional craftsmanship requires not only ensuring sustainable practices and environmental stewardship but also understanding the factors that influence actors' motivation and interest in the Meme Division rattan production and transformation.

3.2.1 Determinants of Actors' Motivation and Interest in Rattan Production in the Meme Division

The determinants of actors' motivation and interest in rattan production in the meme division were captured in the study by looking at ecological, economic, social, and cultural determinants.

3.2.1.1 Ecological Determinants of Actors' Motivation and Interest in Rattan Production

Table 1 shows that, with 24.4% of the total, a good climate is the most significant ecological and natural element affecting actors' motivation and interest. The Meme Division's climate, which is characterized by frequent rainfall, moderate temperatures, and high humidity, is ideal for rattan

growth. With 25.5% of the vote, the presence of tall trees, thick undergrowth, and suitable canopy cover, all of which have a significant impact on the quality and growth of rattan vines and are necessary for their organic growth and sustainable harvest, came in second. In Baduma (Meme North), for instance, a rattan collector stated, *"I find it difficult to harvest an entire mature cane because they are wrapped up the tall trees. I therefore usually drag and cut."* A small percentage of respondents who selected this option closely adhered to the 24.5% nature of biodiversity. Habitat availability and compatibility are determinants, according to 20.2% of respondents. Since rattan plants depend on certain environments for growth, their availability and suitability directly affect the number and distribution of these plants. Other factors were present in 1.4% of the subjects.

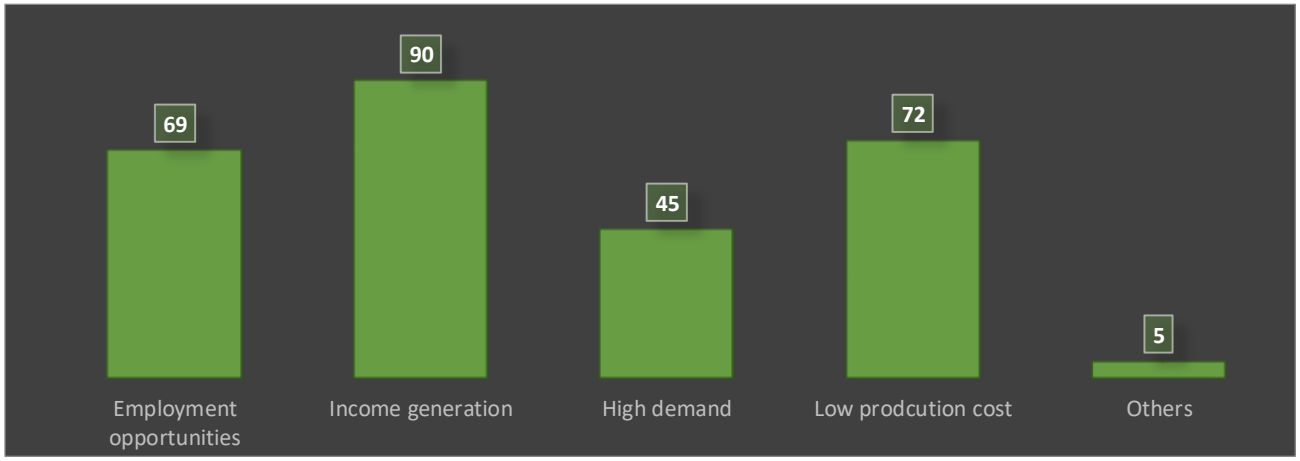
Table 1: Environmental Factors Influencing Actors' Motivation and Interest in Rattan Production

S/N	Variables	Total Responses	Percentages
1	Distinct forest structure	72	25.5%
2	Favourable climate	80	28.4%
3	Habitat availability and suitability	57	20.2%
4	Nature of biodiversity	69	24.5%
5	Others	4	1.4%

3.2.1.2 Economic Determinants of Actors' Motivation and Interest in Rattan Production

According to Figure 2, income generation is believed to be the most significant motivating factor, accounting for 27.1%. Particularly during "off seasons" (dry season), when farming operations (mainly cocoa planting) are experiencing a downturn, rattan is a substantial source of income. In the past, bundles of rattan were sold for 1000–1500 FCFA, but now they sell for about 4000 FCFA. At 26.7%, low production cost is the second most preferred option among the many criteria. During a focus group in one of Meme North's communities, a producer stated, *"I go and harvest them from the forest, which is part of my farm, so I incur little or no cost in producing these canes."* Another choice among the determinants is work opportunities, which make up 20.8%. The production of

rattan employs both people who work in the industry year-round and those who work during the off-season. High demand, 13.6%, was identified as another element affecting actors' motivation and interest in rattan production in the Meme Division. During the peak farming season, this is especially common in the Meme West and South. This is because farmers usually utilize rattan



products to weave a range of agricultural tools, mostly baskets. Other factors are the least significant of all the determinants, accounting for only 1.5% of all responses.

Figure 2: Economic Determinants of Actors' Motivation and Interest in Rattan Production

3.2.1.3 Social Determinants of Actors' Motivation and Interest in Rattan Production

Figure 3 shows that, at 37%, cultural relevance is the most intriguing factor affecting actors' motivation and interest in rattan production in the Meme Division. It's a way to bring the abilities, skills, and intuitions of the numerous performers to life. Community connectedness was mentioned in 18% of all responses. During a focus group meeting in Meme West, one harvester stated, *"We extend to forests belonging to neighbouring villages to harvest cane."* The favourable relationships that exist between our hamlet (Matoh Butu) and other communities like Makobe and Big Butu are the cause of this. Community livelihood, 15%, is the least desirable option out of all of them. This is because rattan production is not the main activity of most people in the Meme Division, as over 80% of them are employed in agriculture. Only 3% of respondents said that their drive and interest in rattan production came from other sources, such as family history.

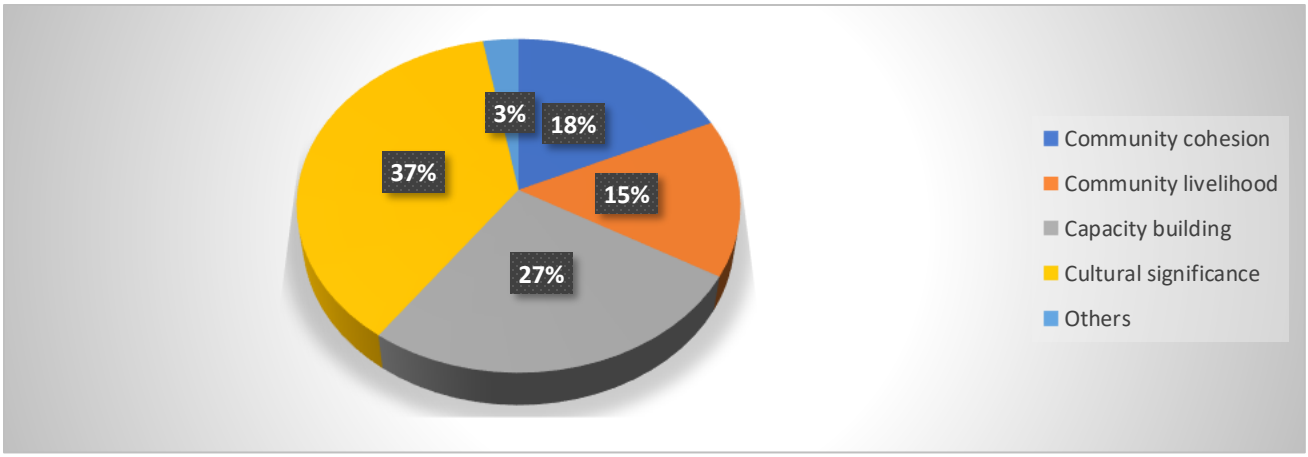


Figure 3: Social Determinants of Actors' Motivation and Interest in Rattan Production

3.2.1.4 Cultural Determinants of Actors' Motivation and Interest in Rattan Production

Figure 4 shows that, at 28.0%, cultural symbolism is the most significant element influencing actors' motivation and interest in rattan production. This is because rattan is widely used in cultural activities like traditional fishing and celebrations. Tradition and heritage accounted for more than 27.1%. This is because many performers revealed that they learnt how to make rattan from their elders, who saw it as an ancient habit. The topic of cultural preservation accounted for over 21.6% of all responses. One example of how rattan is used to retain a cultural value is in the making of fishing baskets. Aesthetic appeal and others garnered the fewest responses, with only 6.9% and 1.2% of responses, respectively. Compared to the East and South of the Division, which have a mix of cultures, Meme North and Meme West are more impacted by these cultural elements; these areas continue to be predominantly rural and, as a result, still feel a greater feeling of cultural attachment.

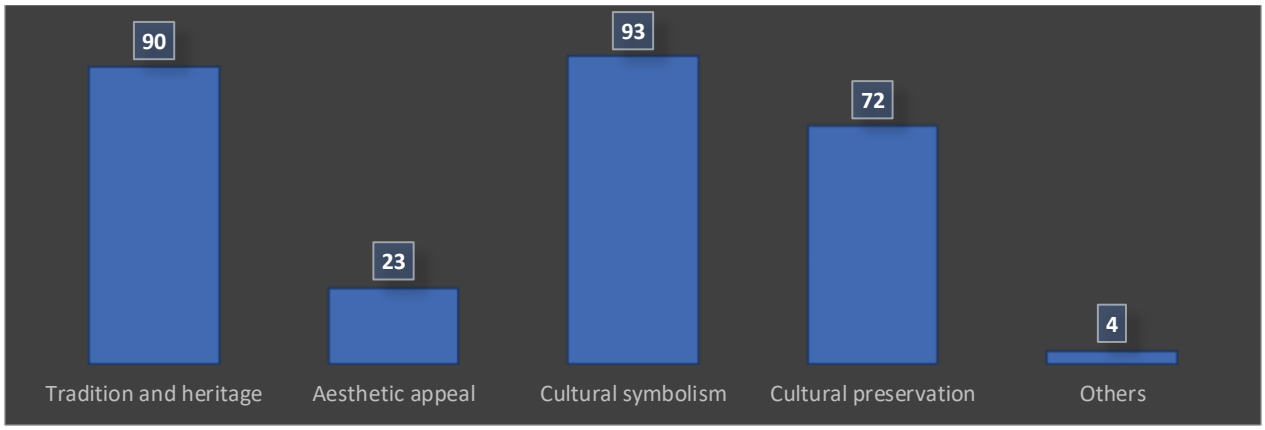


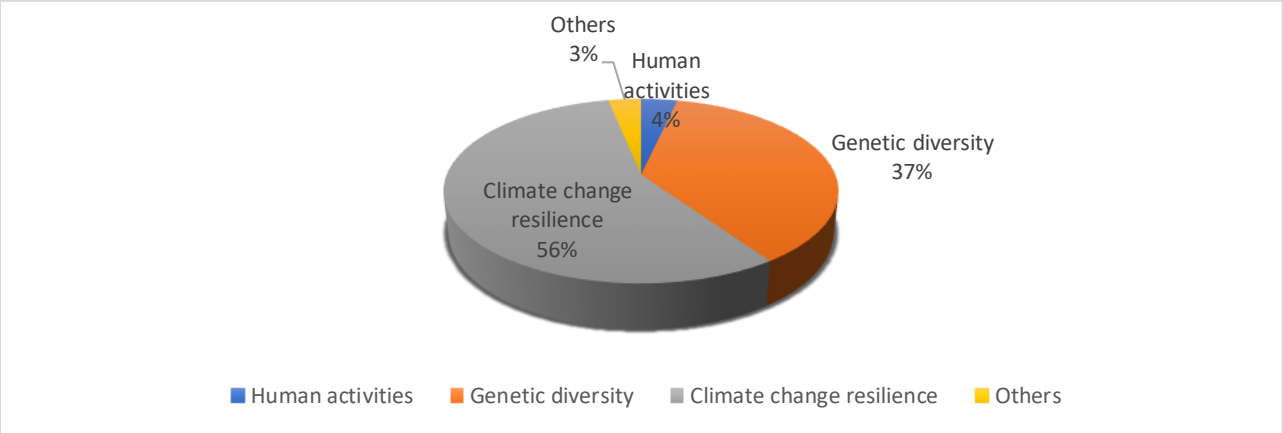
Figure 4: Cultural Determinants of Actors' Motivation and Interest in Rattan Production

3.2.2 Determinants of Actors' Motivation and Interest in Rattan Transformation in the Meme Division

Understanding the elements that affect actors' motivation and interest in rattan transformation is necessary for successful policymaking to regulate the rattan value chain. The level of commitment and involvement of rattan industry actors, including producers, retailers, and legislators, in transforming rattan raw materials into beautiful designs of all kinds is influenced by a variety of elements. These elements may consist of financial incentives, market dynamics, and social and environmental variables.

3.2.2.1 Ecological Determinants of Actors' Motivation and Interest in Rattan Transformation

Figure 5 shows that climate change resilience is the most important factor increasing actors' motivation and interest in rattan transformation (56%). The findings that rattan products are environmentally beneficial and that their materials can withstand severe weather conditions speak



for themselves. The topic of genetic variety accounted for 37% of the reported responses. With percentages of 4% and 3%, human activity and other factors are the least significant contributors.

Figure 5: Ecological Determinants of Actors' Motivation and Interest in Rattan Transformation

3.2.2.2 Economic Determinants of Actors' Motivation and Interest in Rattan Transformation

Table 2 indicates that, at 28.4%, the most attractive attribute impacting actors' motivation and interest in rattan change throughout the Meme Division is its adaptability. This is because it offers opportunities for diversification and value addition. For instance, in an interview, one artisan stated, "I use cane to produce a lot of things, from baskets to chairs and other cultural artefacts." Cost-effectiveness, which comes out at 25.5%, is another important aspect, impacting actors' motivation and encouraging them to take part in the rattan transformation. *"I harvest cane from a portion of my farm that is still covered in forest, so it's less expensive than if I were buying it,"* stressed a rattan processor in an interview. Rattan raw resources are inexpensive for transformation since they are easily accessible and a natural gift. The second-highest percentage of participants

who identified with market access was 24.5%. Given that the market is difficult to reach, especially in rural areas, this implies that there is limited demand for modified rattan products in the Meme Division. Actor collaboration is also seen to be a key component, 20.2%, impacting the transformation of rattan. An artisan from Hill Top named Fiango Kumba was mentioned during a focus group discussion as stating, *"I purchase cane from producers in Douala. I was able to call them and arrange reservations because we were good friends."* It was also disclosed that this respondent chose to source rattan raw materials from Douala because of the region's current turmoil, which makes it hard for a variety of suppliers to reach the urban market. In the value chain, other components accounted for 1.4% of all respondents.

Table 2: Economic Determinants of Actors' Motivation and Interest in Rattan Transformation

S/N	Variables	Total Responses	Percentages
1	Versatility	80	28.4%
2	Cost-effectiveness	72	25.5%
3	Collaboration among actors	57	20.2%
4	Market access	69	24.5%
5	Others	4	1.4%

3.2.2.3 Social Determinants of Actors' Motivation and Interest in Rattan Transformation

Figure 6 shows that social cooperation appears to be the most important element, impacting actors' motivation and interest in rattan transformation, accounting for 39% of the total. Harvesters, processors, and artists are examples of actors who collaborate. However, as seen in the field, there is only a limited level of coordination and cooperation among the local actors. Thus, this limited cooperation limits the interest and incentive of successful actors. It is believed that rattan production and processing strengthen people along the value chain, especially in places where there is full-time assistance and commitment. In the Meme Division, rattan transformation is responsible for 25% of actors' social empowerment. This is noted because it boosts resilience, which in turn reduces poverty rates among various stakeholders. Furthermore, throughout time,

participants in the value chain have noted that social empowerment promotes entrepreneurship and employment development. However, the rate of empowerment is not very visible because marginalized groups, especially women, report relatively low engagement along the value chain. A small number of Meme Division actors have occasionally witnessed economic stability because of change. Furthermore, it was discovered that rattan transformation has increased social well-being by 19%, especially during the dry season when farming and other sources of income are virtually nonexistent. Social well-being has not advanced much in comparison to other regions of the world, especially those with stronger markets and fair trade. Only 15% of respondents said that community development has improved because of the Meme Division's rattan reform. Rattan's transformation has led to diversification, especially as it provides actors with an additional or different source of income, reducing overreliance on a single industry like agriculture, which is especially vulnerable to changes in the market and climate. Additionally, it was revealed in an interview that rattan transformation enhances cultural preservation. *"We use cane to build hanging bridges over streams and rivers with very deep valleys,"* a resident stated. We also use it to construct our traditional dwellings. This contributes to certain aspects of community development, whereas other components make up 1% of the rattan value chain.

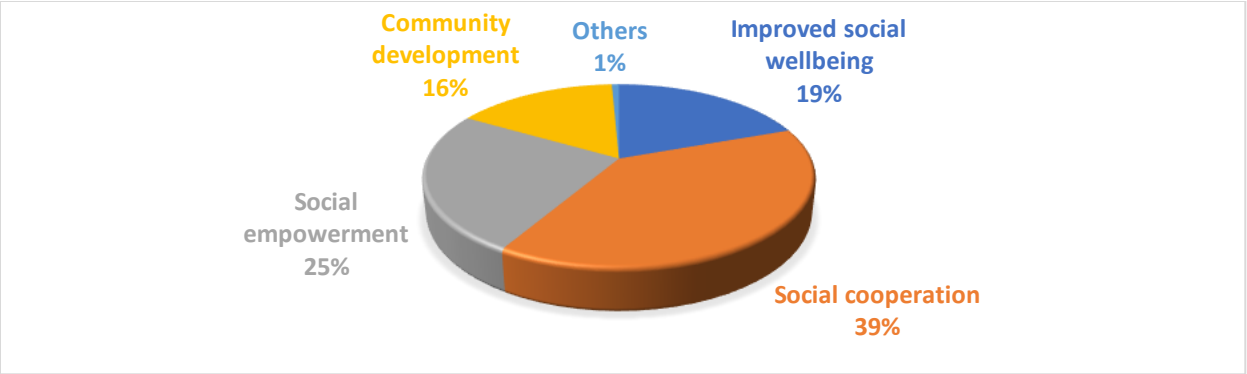


Figure 6: Social Determinants of Actors' Motivation and Interest in Rattan Transformation

3.2.2.4 Cultural Determinants of Actors' Motivation and Interest in Rattan Transformation

Figure 7 shows that traditional craftsmanship, which makes up 40% of the total, is the most important cultural component influencing actors' motivation and interest in rattan transformation. *"I learnt these weaving techniques from my father because he was very good at weaving baskets and other accessories using bush cane harvested from the forest,"* a weaver stated in an interview. 31% of the responses focused on local skills and knowledge. The skills and information required to transform rattan are inherited from one generation to the next rather than being learnt from outside sources. This makes it easier for young guys who are interested in the activity to integrate. However, the industry and its operators are at risk of experiencing complete stagnation due to a lack of creativity and innovation. Tradition and ritual were mentioned in 18% of the responses. It was found that, in addition to the production of traditional baskets, fishing nets, and cultural display items known as "nyeka," rattan transformation is carried out for other traditional or ritualistic purposes. At 9% and 2%, respectively, cultural interchange and other factors were not significant cultural predictors of rattan transformation.

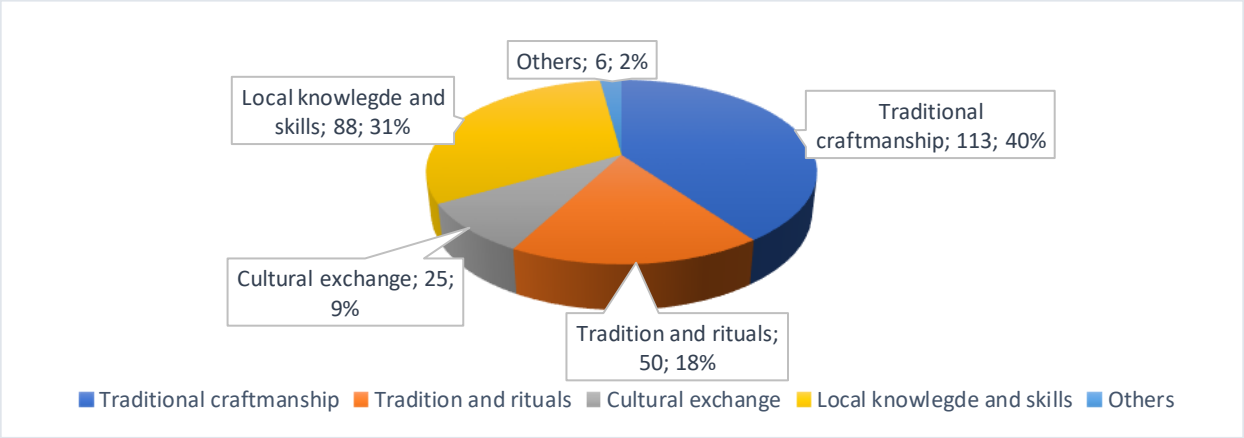


Figure 7: Cultural Determinants of Actors' Motivation and Interest in Rattan Transformation

3.3 Statistical Test on Motivation and Interest of Actors in Rattan Production and Transformation

H0: The motivation and interest of actors in rattan production and transformation are more orientated towards cultural factors than socio-economic ones. Using a simple linear regression statistical test, the hypotheses were tested.

H1: The motivation and interest of actors in rattan production and transformation are more orientated towards socio-economic factors than cultural ones.

With an asymptotic significance value of 0.000, the results of the simple linear regression test for actors' interest and motivation in rattan production and transformation, as shown in Tables 3a and 3b, are 0.904 (for production) and 0.908 (for transformation), both of which exceed the typical P value of 0.05. Consequently, the beta coefficient indicates that the factors influencing production and transformation are positively correlated with actors' motivation and interest. Therefore, the null hypothesis (H0), which posits that actors' motivation and interest in rattan production and transformation are influenced more by cultural than by economic reasons, is thus disproved.

Table 3a: Motivation and Interest of Actors in Rattan Production and Transformation in Meme Division

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.448	.228		15.130	.000
	Interest and motivation	3.343	.095	.904	35.312	.000

a. Dependent Variable: Determinant in Production

Table 3b: Motivation and Interest of Actors in Rattan Production and Transformation in Meme Division

Coefficients[b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	**(Constant)**	2.814	.212		13.268	.000
	Interest and motivation	3.201	.088	.908	36.333	.000

b. Dependent Variable: Determinant in Transformation

4. Discussion

State actors, community-based actors, and civil society players are the three categories of actors that are involved in the rattan value chain, according to the Meme Division's findings on actor typologies in rattan production and transformation. In the Meme Division, these actors have an impact on the actors' drive and enthusiasm for rattan production and transformation. The findings of this study are like those of Haryono *et al.* (2022), who examined the influence of political economics and policy on the growth of the rattan craft sector in Cirebon. According to their findings, government policies in the raw rattan trade system had a significant impact on the dynamics of the rattan industry's development (Haryono *et al.,* 2022).

The Meme Division's findings on the ecological factors impacting actors' motivation and interest in rattan production show that a favourable climate has a 24.4% impact on actors' motivation and interest. This indicates the highest temperature and amount of precipitation required for rattan growth in the research area. The results of this study are in line with those of Rozali *et al.* (2021), who assessed the diversity and composition of rattan in Peninsular Malaysia's tropical rainforests for conservation purposes. According to their findings, high disturbance rates, light intensities, and relative humidity all had a substantial impact on the richness and abundance of rattan species (Rozali *et al.,* 2021). According to 27.1% of respondents, actors' motivation and interest in rattan production are influenced economically by income generation. This implies that the money made

from the selling of rattan raw materials is what motivates and interests' actors in rattan production. The study's findings are consistent with those of Dadzie *et al.* (2023), who examined the perceived advantages and disadvantages of the rattan and cane furniture manufacturing industry in two major Ghanaian cities. According to Dadzie *et al.* (2023), their results show that higher income ranks highest across all categories, indicating moderate to very high success, while all other factors record significant (P = 0.001) averages of 3.22–3.95. A study on small and medium-sized bamboo and rattan businesses in Kumasi's economic empowerment: producers' views was carried out by Effah *et al.* (2014). Among other things, their research showed that SMEs that deal with bamboo and rattan have a great deal of potential to boost household incomes by giving craftspeople direct jobs (Effah *et al.,* 2014). With 37% of the total, cultural significance is the most intriguing social factor affecting actors' motivation and interest in rattan production in the Meme Division. This suggests that the production of rattan held great cultural significance for the inhabitants of the Meme Division. These results are like those of Niengneimawi & Hangsing's (2024) research on the ancient art of the Vaiphei tribe of Manipur, India, using an indigenous backstrap loom. According to their findings, the Vaiphei have been weaving on traditional blackstrap looms for centuries as a kind of discipline and honour in addition to their obligation to support their families' fundamental necessities. It has been shown to have a high cultural significance in the community. Cultural symbolism is one of the elements that has been identified to affect actors' motivation and interest (28% of all participants). The findings are like those of Afentina *et al.* (2017), who examined the hidden values of rattan gardens' cultural ecosystem services. According to their research, the rattan gardens of Tumbang Runen village hold great cultural significance for the locals, encompassing spiritual heritage and values. Certain plant species are used in rituals and healing rites as part of the spiritual components of Cultural Ecosystem Services (CES) (Afentina *et al.,* 2017). Because it closely connects people to their ancestors and their religious system, the locals view rattan as historically significant (Afentina *et al.,* 2017). Additionally, rattan production and gardens are cultural symbols that help preserve customs, values, and knowledge across time (Afentina *et al.,* 2017).

According to research on the factors influencing actors' motivation and interest in rattan transformation, climate change resilience is the ecological aspect that most significantly increases actors' motivation and interest, according to 56% of all respondents. This suggests that rattan materials are resilient to harsh weather, which makes them a profitable source of income. The

results are different from those of Karlina *et al.* (2021) about the polarization of motivation and perception in the development of ecotourism based on the sustainable use of peat ecosystems. According to their findings, the community's and stakeholders' polarized perceptions and motivations demonstrated a favourable attitude towards the growth of ecotourism in the values of 6–7 (Karlina *et al.* 2021). The value demonstrates that stakeholders and the community have a positive attitude. With a value between 6 and 7, the motivating value of both actors shows a positive outlook on the growth of ecotourism (Karlina *et al.,* 2021). At 28.4%, adaptability is the most significant economic factor influencing appealing actors' desire and interest in cultural transformation throughout the Meme Division. This suggests that rattan raw materials can be used to create a variety of objects, including flower jars, tables, seats, cabinets, baskets, and more. These results conflict with those of Myers' (2015) investigation of the effects of Indonesia's ban on rattan exports on local and foreign markets, forests, and rattan collectors' livelihoods. According to the findings, actors' benefits vary based on their activities and value chain position one year after the policy went into force (Myers, 2015). Sales have only increased at Java's biggest and most upscale furniture makers (Myers, 2015). In Kalimantan, Sulawesi, and Sumatera, actors that supply rattan near forests suffer (Myers, 2015). The biggest immediate gains are going to those who smuggle rattan from Indonesia (Myers, 2015). When taken as a whole, these results demonstrate that the policy benefits elite interests in the short run, whose political savvy allowed it to pass. In the long run, the trees are endangered, and industry faces the possibility of suffocation. According to research on social determinants, actors' motivation and interest in rattan transformation in the Meme Division are influenced by social cooperation, which explains 39% of replies. This suggests that every actor in the value chain is cooperating to support the expansion of the rattan sector. The results show that traditional handicraft, which makes up about 40% of the total, is the most important cultural factor affecting actors' motivation and interest in rattan transformation. This suggests that performers are more driven and engaged in creating crafts that represent the people's culture and traditions.

5. Conclusion

The rattan value chain is examined in this study, along with the factors that influence actors' motivation and interest in Meme Division and the production and transformation of rattan in

Cameroon. The Meme Division rattan value chain's actor typologies in rattan production and transformation were studied, as were the factors that influence players' motivation and interest in these processes. The Meme Division's rattan value chain dynamics were influenced by the three types of actors who were found to be participating in the chain. State actors, community-based actors, and civil society actors are among them. Four major categories were used to analyze the factors that influence actors' motivation and interest in the production and transformation of rattan: ecological, economic, social, and cultural factors. In terms of ecology, the availability of a good climate for rattan production was the most significant factor affecting actors' motivation and interest. The actors' motivation and interest in rattan production were also thought to be influenced by the economic aspect of producing rattan for revenue. The cultural importance of rattan items is the most intriguing social aspect influencing actors' motivation and interest in rattan production in the Meme Division. Cultural symbolism embodied by rattan items is one of the elements that has been discovered to affect actors' motivation and interest. Climate change resilience is the most important ecological aspect, increasing actors' motivation and interest in rattan transformation, according to the factors of actors' motivation and interest. Rattan's adaptability is the primary economic factor influencing appealing actors' desire and interest in rattan transformation throughout the Meme Division. Social collaboration between the participants in the Meme Division value chain is a significant driver, according to research on social determinants. The results show that traditional craftsmanship is the most important cultural factor affecting actors' motivation and interest in rattan transformation. The government, non-governmental organizations, and community actors should create policies aimed at boosting the growth of this sector for sustainable well-being, according to the study's conclusion that rattan production and transformation are profitable activities in the Meme Division.

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Conflict of Interest

We declare no conflict of interest.

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